# Methow Valley Perceptions of Drought: Interview Project

Methow Watershed Foundation
Methow Watershed Council
Washington Department of Commerce - Capacity Building Grant

June 27th, 2025

Prepared by:

Reach Studio

# Table of Contents



*The full interview transcripts in this version of the document are only representative of the 15 individuals who consented to share their interviews publicly beyond the Methow Watershed Council. All 21 interview transcripts are available for internal use only within a different document held by the MWC.

# Project overview

The Perceptions of Drought interview project is one of four efforts developed by the Methow Watershed Council as part of a capacity-building grant awarded by the Department of Commerce during the spring of 2025. The intent behind this interview project is to support the Methow Watershed Council's work plan to connect with other water resource-related groups in the Methow Valley, identify potential collaborative partnerships for future project implementation, and to support inputs to the Long-term Drought Preparedness Plan underway with the Okanogan Conservation District. The Council also intends to use this project to inform their ongoing and future community outreach strategies, and to aid in developing and refining educational programs and projects for a diverse array of constituents.

### Participants

The Methow Watershed Council provided a list of participants who were contacted via email or phone to schedule in-person interviews whenever possible. Interviews were conducted between late April and early May of 2025. Out of 21 total participants, 17 interviews were held in-person in the valley between Carlton and Mazama; four interviews were conducted online via Teams due to the participant's location or timing needs. The participant group curated by the Methow Watershed Council included a variety of roles and organization types intended to be representative of a variety of viewpoints throughout the valley; see *Participant Selection* on page seven for further discussion. Public agencies, local municipal governments, irrigators and agriculture representatives, tribal representatives, non-profits and local recreation businesses were all accounted for on the list.  The table on page five outlines the participant name, their organization, their role, and their organization type, organized alphabetically.

### Process

Interviews followed the same seven-question format, below, and the transcripts are structured accordingly. Participants typically had more thoughts to add during the numeric ranking sub-questions (2a, 3a, and 7a) so these are broken out into their own headers in the transcripts. Interviews were audio recorded and the transcripts were edited to eliminate repeated phrases and filler words such as "like" and "you know." The transcripts match the detailed character of each conversation and were lightly edited when needed to clarify sentences or ensure concepts made sense in written format. The interviewer very occasionally asked a follow-up or repeat question during the interview to fully capture the interviewee's perspective; in those rare instances, the interviewer's language is marked in *italics* in the transcript.  Participants were given the option to review their transcripts and several sent back small edits to their remarks.

**Interview structure and survey questions**

Interviews were conducted with a set of questions pre-defined by the Methow Watershed Council. The consultant suggested the rephrasing of two questions from the original list to elicit responses more relevant to the Council's goals, which the MWC Chair and Administrator approved during a meeting on April 21st. The final question list is as follows:

1. Tell me a little about yourself, your job/position/livelihood, and your organizations' relationship with the Valley's water resources.

2. What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?
    a. How would you rate the seriousness of these current impacts (1 being lowest, 10 being highest impacts)?

3. What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?
    a. How would you rate the seriousness of these projected impacts (1 being lowest, 10 being highest impacts)?

4. What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?

5. The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?

6. What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?

7. Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?
    a. How would you rate the community's current motivation to make needed changes? (1 being not motivated, 10 being very motivated)?

| | Name | Organization | Role | Type |
|---|---|---|---|---|
| 1 | Alexa Whipple | Methow Beaver Project | Director | Non-profit |
| 2 | Andrew Denham | Twisp Public Works | Director | Government |
| 3 | Andy Hover | Okanogan County | Commissioner | Government |
| 4 | Bill Moody | Former US. Forest Service | Former Smokejumper, Supervisor, resident | Public Agency |
| 5 | Casey Canby | Chewuch Canal Company | President | Irrigators / Agriculture |
| 6 | Charles (Chuck) Brushwood | Colville Confederated Tribes | Fish and Wildlife Policy Advisor | Tribes |
| 7 | Cody Acord | Okanogan County Fire District #6 | Fire Chief | Government |
| 8 | Craig Boesel | Barkley Irrigation Company | Farmer/Rancher, Barkley Director | Irrigators / Agriculture |
| 9 | Dylan Marks | Methow River Rafting | Co-owner | Recreation |
| 10 | Jacob Gates | Winthrop Public Works | Supervisor | Government |
| 11 | James DeSalvo | Methow Trails | Executive Director | Recreation / Non-profit |
| 12 | Jasmine Minbashian | Methow Valley Citizens Council | Executive Director | Non-profit |
| 13 | Jeanne White | Methow Conservancy | Conservation Director | Non-profit |
| 14 | Jennifer and Bill Duguay | Methow River Wildfire LLC | Firefighting business owners, retired teachers | Lower Valley |
| 15 | John Crandall | Methow Salmon Recovery Foundation | Fish biologist | Non-profit |
| 16 | Justin Yeager | NOAA | Columbia Basin Branch Supervisor | Public Agency |
| 17 | Kirk Lohman | Lost River Airport HOA Board | Community Water System Manager | Community Water System |
| 18 | Mallory Hirschler | Washington Dept. of Fish and Wildlife | Biologist | Public Agency |
| 19 | Rick Alford | Yakama Nation Fisheries | Methow Fish Biologist | Tribes |
| 20 | Steve Dixon | Former Methow Valley Irrigation District | Former MVID, retired teacher, former USFS | Lower Valley |
| 21 | Vic Stokes | Beaver Creek Ranch | Rancher | Irrigators / Agriculture |

**Next steps**

Interview synthesis was not a part of this initial contract, however, this collection of local viewpoints is rich with concepts relevant to the Methow Watershed Council's mission, operation, and future years of work planning. The Council aims to analyze and synthesize this body of work and share findings and recommendations with the community. Relevant findings will likely include:

- Differing levels of urgency depending on a person's primary role and focus
- Differing perceptions of risk and impact depending on a person's primary focus
- Existing drought-related projects to celebrate and share with the wider community
- Ideas for strategies to reduce drought impacts and engage the broader community
- Challenges in addressing drought within the community and knowledge or action gaps the Methow Watershed Council can fill with their programming
- Concepts related to community motivation dynamics and the long-term concerns
- Areas in need of clarification when it comes to drought definition and drought dynamics within the Methow Valley
- Current administration impacts to public agencies' ability to study and address drought in the near- and long-term
- Cultural perceptions of water and their relationship to the Valley's ability to comprehensively adapt

Multiple survey participants requested that their full text transcripts not be shared beyond the Methow Watershed Council. Due to the wide-ranging nature of these interviews and the conversational structure of the transcripts, the consultant requests the Council keep the full text transcripts strictly within their immediate group. If any direct pull-quotes are used for public or partner report-outs, it is requested that those quotes should first be approved by the interview participant. Multiple survey participants also indicated an appreciation that the Council is doing this research and expressed interest in some sort of roundtable or educational event sharing synthesized viewpoints from this survey.

*December 2025 update: The Council has obtained permission from 15 individuals to share their interviews publicly beyond the Methow Watershed Council, which are represented as their full transcripts within this version of the document. All 21 interview transcripts are available for internal use only within a different document held by the MWC.

# Survey discussion

Several observations arose throughout the interview process that may influence the comprehensiveness and/or use of the data collected. The below observations on question phrasing and participant selection provide context for understanding and utilizing interview content for Council purposes.

### Question #5 language inconsistency

The Council-provided text for question #5 states: "The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?" Many survey respondents reacted to "towns" as an insufficient characterization of all domestic water uses, particularly since many residents live outside of town boundaries. After interview #16, the consultant discovered that the Council's website language differs from the language the Council provided for question #5, broadening beyond "towns" to be "Water for People: Sufficient water supplies for vibrant towns and thoughtful rural development." That discrepancy affected the utility of some answers to question #5, as the "towns" language misdirected many interview participants into commenting on language it appears the Council has already thought through in other locations. For consistency between participants, the consultant kept the original "towns" phrasing for the final six interviews.

### Participant selection

The Council-provided list of participants had geographic variety, role variety and organization variety. While a wide range of viewpoints were covered in the cohort of 21 participants, this group should not be considered representative of the valley at large. The selected folks were, in general, longer-tenure full-time residents of the valley with pre-existing backgrounds related to some aspect of local water resource issues. This proved helpful in establishing deep and detailed observations of drought perceptions in the interviews, however, these perceptions of the informed participants may not align with those of the public less involved with the topic. For example, only two of the participants referenced ever being part of the valley's large cohort of second homeowners, and both now live here full-time and have been deeply involved in the valley's water resource management for multiple years. Newer residents, second homeowners, and those living in the valley without direct professional experience with water resources were not accounted for on the list of participants; interview synthesis and any generalizations will seek to recognize the needs and views of all stakeholder groups.

# Interviews

# Alexa Whipple

Project Director
Organization
May 5th, 2025

*Alexa was joined by longtime Okanogan local and Methow Beaver Project collaborator Gert Webster. Gert's contributions include (Gert) before her statements. All other comments are Alexa unless otherwise noted.*

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
I'm Alexa Whipple, Project Director for the Methow-Okanogan Beaver Project. Our project's been around since 2008 in different forms, as far as organizational structure, but we formed as a response to climate change, storing water through natural partnerships with beavers across our watershed and our landscapes to respond to a growing insecurity of water, but also the likelihood of there being less snowpack in the North Cascades. That's how it started. It has evolved tremendously from there. We're going on at 17 years now. Our relationship to water is huge; we're trying to keep water around longer, when our snowmelt happens, in the fall when we start to get rains again, anytime there's an opportunity to keep water around longer which really is year round, if you're partnering with beavers. Where they beavers used to be they aren't anymore, they're coming back in places, but most people don't realize they can live with beavers. It's like "they've been a nuisance since we've been here," or "they've never been here before." There is a lot of outreach, education and insight needed to reconnect people with the ecology of where they live, and that goes for all of us, we're always learning all the time, so there's absolutely no judgment there. But people usually have "aha" moments like "oh, I can live with beavers just by wrapping my trees or, just watching and learning from them and then seeing what happens." The conflicts usually aren't something terrible, or if they are, then we try to remedy that, or we relocate to some place that can tolerate them and coexist.

*(Gert)* But if they realized the amelioration of the effects of drought that beavers can do, they would be even more excited. And I'm sure a lot of them do realize.

*(Alexa)* Yeah, that's a big selling point for coexistence. When people call us, it's always to relocate, they don't even know that there's coexistence options. As soon as we start talking about that and the relation to their well, which most people in rural eastern Washington are on wells outside of our small municipalities, then it hits home to be like, "oh, this could actually benefit me." Sharing information is key to looking at these native species, keystone species, ecosystem engineers, as a partner instead of a conflict.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
Well, we're not too far into drought, but we're a couple years. I don't know, to me, we could get through any drought, except maybe if it moved beyond a decade, I think if we had more beavers in our watersheds to slow the water down, spread it out and accommodate the room water needs to stick around longer and then slowly sink into the groundwater, move downstream, back to the surface water opportunities—the water comes out cooler, comes out cleaner, comes out later.

For impacts, to me it just depends on where you're at, like Okanogan orchardists are in a lot deeper trouble than folks in the Methow are for agriculture. Generally, people think there is no such thing as drought, as long as there's water coming out of their tap. We have people watering their lawns in a time when we had a declared drought last year, second year in a row, and people are still watering lawns like no tomorrow. That part, I feel like, is where the Methow Watershed Council could really shine, in creating a culture not of scarcity, but of responsibility and stewardship. Like – why do you need that grass? Does it have to be that big of a lawn? What else could grow there that would be beautiful and enjoyable for the reasons you wanted your lawn or other watered, nonnative species, and really introduce the idea of landscaping with natives more that don't need the water the same way. I know that information is out there, but people usually have to go look for it if they're interested, rather than it being part of their Valley experience or their Methow culture. It has to be shared wisely so people aren't turned off by the messaging. I think it's making it part of what it means to be in this special environment; it means taking responsibility for the water even when it's not scarce.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**
Well, serious for who? People? Or wildlife? I think for wildlife, it's way beyond serious, because of habitat loss, every place they can be is at that much greater of a risk during drought. Humans, you know, we have a lot of ability to just chuck water into places if we really need it. I mean, there's people putting pools in in places that are a closed basin. They can't drill another well, or they're not supposed to, whether it goes noticed or not., but they're putting pools in, and then they truck the water in to have them filled up. It really matters how much money you have and how much say you have in how land is used or converted or permitted.

*For the ranking question, can you answer it from the perspective of the Methow Beaver Project, of what you consider under your purview, both people and habitats?*
I'm saying we're probably at an eight, seven and a half to eight. The Methow is probably better off than the Okanogan, and now I live in the Okanogan.

*(Gert)* Yes, eight is right. I would like to say 10, just because I don't think people really understand drought. They hear we're below snowpack, we're going to have a drought, meaning the rivers and the creeks are going to be running low, so maybe they can't water their yard. But it is more than that. Drought means the deer didn't have a place to drink and cool off. The bears or the fish will die if the humans need the water more. So for wildlife, we're at a 10, always at a 10, because if we're even in this much drought, the people are going to take what the wildlife need.

(Alexa) And we're only losing land to development. We're not gaining much land. Usually, where we have conservation or acquisition, it's of land that's open already. We're not removing structures or wells or straws in the ground, so we're only moving in the wrong direction in that regard, towards people using more and more and more water. There are irrigation efficiencies, and that's great, but then you have more people irrigate. I'm not one to want everyone to have boxes to check and rules to absolutely follow, but metering seems like a really important tool to at least have access to data, whether it's fines associated use – probably not a good idea right off the bat—but just say, "hey, we're going to put meters in, so if you want to use your water, you've got to accept a meter," and then monitor it for a while. Everyone will think that'll be a slippery slope, but the predictions are that we are going to have less and less water over time. Those who have the senior water rights are going to want to know who's using stuff down the line, and vice versa. Those with junior water rights want to make sure the senior water rights are only using what they should get. This is all irrigation, but it doesn't account for all the straws going in for domestic, private use of water.

(Gert) Those count too, but as far as county planning and development, they're mostly exempt from the minimum flow rules in the Methow.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**

I think only the wealthiest people will have enough water, because they can buy it. They can have it shipped. They can have their well drilled deeper. When I say wealthiest, that might be the most subsidized, as well, like for agriculture, if they're a large corporation and they can take loans or get government subsidies, there's going to be that opportunity for them, but the small growers, the people with less means, will have less water, and you're going to end up with just an unsustainable community.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**

It's a 10 for sure. We're headed in that direction every year. This was a good snow year; it wasn't a great snow year, but it goes faster and faster because we're warming faster and earlier. And if we had more beavers, the water literally would stick around longer.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
Starting with the easiest – help people understand the value of water. Water running straight down a straight creek into a straight Methow all the way to a straight Columbia River, through the dams and out to the ocean, is not how things used to work, and it's not how these places became productive in the first place. Slowing water down and spreading it out is how you build resilience in our arid environments. Resilience to anything—a climate disturbance like fire, which is needed but in a more controlled fashion. We need to create more space for accommodating water, it gets a little harder here now, like acquisitions and flood plains and moving people out of flood plains. Folks are working on that in different parts of the country. It is not happening here in the Methow. It's happening in western Washington, and there are folks working on it around the town of Okanagan, trying to move what's often trailer parks built on the most at-risk lands out of harm's way. Here there is a big trailer park right on the edge of the Twisp River, yeah, before it hits the Methow and there's a huge berm built up against it. It is literally below surface water in an average flow, so during a high flow, you have this huge risk of topping and then every one of those trailers would flood.

Same up in Lost River, a berm, a dam, basically, a levee built up to protect a development in the floodplain that never should have gone in in the first place. People seem to think levees will last forever, and they don't, and there's no money to fix it or raise it, or the money should really go into making homes for those people to move to outside of a flood plain. And let it be the river again, let it be beavers and side channels that then sustain us as human communities and our wildlife friends. I could go a lot about this. It's what I do all day, every day, is try to work on these issues. It needs to be framed differently than "you want to take my house." People don't want to hear that, but it's if it's approached differently to be like, you want to make people safer, we want to give you a place that can be yours, and the next generation's, and the next generation's after that without a loss every time there's a big snow year. You rebuild in the exact same place, because that's where your investment is, it is in that place. You can't blame people for not wanting to just give up on something valuable that is theirs to

(Gert) Especially when they're told, "Oh, this is the 100-year flood, this isn't going to happen again in your lifetime." So there's an old, engrained trust that we will be okay. There are a lot of educational needs to counteract that.

(Alexa) That's why we built in the floodplains in the first place. We'd straighten the creeks. We'd straighten the rivers. We were thinking we were controlling. But then there are these events that come along that show no, you're not controlling at least not all the time. But then there are massive losses to human interests because of that one event that likely would be 1000-year flood if it were a landscape, river scape watershed that had any resilience and complexity in it to accommodate these bigger events. We don't have that; we've straightened

everything. Efficient conveyance of water—that's like the definition for 'what did humans do on Earth? They made the conveyance of water very efficient.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**

No, I think rural development outside of towns is a huge contributing factor to water use. And what you see and don't see, like there are a ton of wells being punched in…they're supposed to be on ecology's radar, they're supposed to be permitted, they're supposed to be labeled and monitored. And then you have people diverting water for their use when they're out of the line of sight of others. It's completely illegal, but if nobody knows about it, then there's nothing to be done. Even when there is something known about it, it is really difficult to actually come in and make a change and make it stop, without a lot of legal investment in that. In the west especially, it is wild in the sense that people do what they want on their land, and it's property rights, and it's no responsibility towards your downstream neighbor, most of the time. I don't mean to demonize people. I just see it all the time.

(Gert) It's just a human characteristic—if I don't get it now, somebody's going to get it before I do, so damn the consequences, damn the regulations, I've got to do this. I'm doing this. I have every right to do this. You know that whole attitude? I do think humans can be lovely; there are some lovely humans out there. But I think overall, they're a damn mess. Even with the lovely ones, when push comes to shove, or you're going to not have a well, you're going to not get your water, there are going to be problems.

(Alexa) I can guarantee that if we have five more years of drought, most of the small tributaries that feed into the bigger rivers here, like into the Twisp River, any place that people live along those or even near them, that water will be diverted and it will not make it into the river. And then there will have to be a larger movement for people to go up and make sure those upstream of them are not unlawfully taking the water. We go to beaver calls regularly and find that people are diverting portions of the creek that they live along into an unpermitted pond that beavers have found. Beavers love a nearly perfect pond, they just dam up the outlet and they're like, good to go, and then the human is like, "wait a minute, I wanted it to do this, you don't get to do it too." And we come along and we look at the maps, because that's what we do, and we look at land owner agreements, and we're like, "well, you realize, if we're going to do something for you, besides wrapping a tree or trapping and removal, we have to get a hydraulic project application from Washington Department Fish and Wildlife." We ask if they're okay with us submitting an application to Washington Department of Fish and Wildlife and the answer is usually, nope, we are not, thank you for coming out for your free service call.

We have a unique view of some of these water diversions because we get invited onto people's private lands a lot, especially newer comers who aren't willing to take care of the beavers in their own way. Most of the old-timers do take care of the beavers in their own way. And we want to reach people who will want help. Then they've also come with their excavators and stuff from somewhere else and just use them on their own property. They're not contractors, or even if they are, they just happily use them on their own property to make it look the way they want it to. And that is absolutely not legal, but really hard to suss out and do something about.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**

People. We're the problem. And then it's funny, I just don't feel like anyone truly wants to admit it. I love living on this planet, and I'm part of the problem, and I absolutely know. Water can be a common cause to bring the community together around, but that can't be water for the sake of increasing the opportunity for development. I will tell you right now, one of the Methow Watershed Council, goals is to increase water availability for development, which is why I am not a part of Methow Watershed Council. They came to me six years ago and said "we'd love to go for a Patagonia grant with you, so we can get more water up in one of the tributaries here, so we can get more development higher in that watershed, and use beavers as a way to keep water around longer for more development." Absolutely not. That is not why I do this work, it is not to give more development opportunity.

(Gert) That's what the whole Okanagan Valley of watershed thing, with Aspect, they wanted to find more water for more development. It will never end. It won't stop.

(Alexa) There's got to be limits on capacity, especially in arid environments, and that is absolutely essential, or we become more efficient in the hubs of community, rather than just expanding up into the higher watershed. It's further, it's harder to protect from wildfire. It is so nonsensical to be spreading across the landscape this way. It really makes more sense that we could accommodate more people in smaller spaces revolving around the resources needed. I don't think I'm not anti-people. I'm just anti-development with no thought for a future whatsoever.

There is opportunity for more people to be stewards of the valley, of their watersheds, knowing the watershed, understanding how water moves through this place that we walk and drive and hike and boat on. What does it take to care for this watershed, and what does it need to be more resilient? It's really getting people onto the landscape, getting people to more community events that connect them with each other, as people who also care about the water and the place and the wildlife and the people, but then getting them on the ground, from youth all the way up to the elders, who maybe can't lift all the things, but can really teach others how to do some of the other things. Gert was just teaching us all basket

weaving to make these floating wetland treatments to hold the plants that will go in to become water purifiers that are cleaning up so much of these livestock degraded ponds. Livestock aren't managed to stay out of the water, even when you try to with fencing that's not reliable. People need to be involved with managing livestock. That's not the only thing degrading our water, but it is a huge one. It's been going on for 150 years. Constantly. Even people haven't had the same impact across such a large area as cattle and sheep.

(Gert) The Methow Valley is so good at community education, and I think that they have had a lot of success in some areas. If they could continue that around drought and water and emphasize the need, things like really articles in the Methow Valley News. People need to hear about it in a non-confrontational way, maybe even as a celebration of work that's been done.

(Alexa) Celebrations of water and community, instead of always being like, "it's dire, it's terrible." and we've got to do something, it's more of like "we're doing things right."

(Gert) And I think if some of those events were headlined by maybe not professionals, but people that live within the community, who have lived here a long time or just moved here from maybe someplace like California, where they don't have any water anymore anyway, that would be relatable. Maybe embed it that way. I wish that would happen in the Okanogan.

(Alexa) We give beaver site tours once a month now, and you know, people have been showing up in numbers. There are already limitations on the Methow that are great to keep development from moving all the way up to the highest parts of the watersheds, and I think we need to celebrate that. It's because of federal government in a lot of ways; federal government has served amazing purposes in the past, it doesn't mean it's always going to work that way, like now, but it's something that we can look to get back to that where public lands, both state and federal, are acting as critical locations to do some of this water storage, natural storage, not dams. Dams do not create resilience, they create failure and do not create habitat for all the species that are barely hanging on in so many places.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**

I don't know. I think this community is changing a lot, and it's changing fast since COVID, really. I'm worried that this is a bit of a turning point, honestly, unless there are people who are going to uphold things like 1) the boundaries of public lands, you know, whether that disappears or not and opens up even more lands to development, 2) the minimum acreage for lot sizes on the valley floor and in the uplands. I mean, this area is so special in the sense that not only is there public lands, but there's also the Conservancy, which you know was ahead of its time here in this small rural community and has been able to protect a lot of large ranching properties. But I just see the disconnect from the actual place with new people

coming in, and, yes, it's beautiful, and oh my gosh, it's so glorious to be able to recreate here and just visit here if it's your second home, and go away when things get tough. But that's not how a community survives drought and has resilience. Most of the folks that have lived here a long time can't just pick up and leave immediately, and most of them are now looking for other places to live because they can't afford to be here anymore. It's hard, because I see that shift with the wealthiest coming here and the least wealthy not having a really easy way to stay. I don't know if they'll value the place the same way.

**How would you rate the community's current motivation to make needed changes?**
Gosh, when you see the small groups of people protesting on the corner still at the community center, I'd I like to think it's a high number, but it's way too small a group of people to make me say it's high. I guess I have to go in the middle, because I'm not sure where it's going to fall out. I think the next three and a half years will say a lot as to what happens here under the current administration, and potential for the drought to continue.

I'm 52 and I've lived out west for 30 plus years. I'm still just getting the nuances of the differences in the years, the annual cycles, the seasonal cycles, but to have an average snow pack up high, but a well below average snowpack on the valley floor. What does that mean for agriculture on the bottom valley floor, which did not get a lot of soaking in of water. In that situation we still have flows, but they're just careening, flowing out through these tributaries and into the bigger rivers and moving out. We can't really count on our mountain snowpack to sustain us as much as I think we used to be able to do, and maybe we never could.

I think incentives are one key -- how do we incentivize xeriscaping, or any of these different ideas around water conservation. I don't think it always has to be that you're paid to do it, or you get a tax break. I think it's a lot around demonstrations and then helping people do it, putting together volunteer groups to be make it happen.

(Gert) And community minded—remember in the old days when people used to get the prettiest yard on the block kind of thing? Why couldn't we all get together and help everybody, and then somebody gets the least water intensive yard on the block? Something like that.

(Alexa) It's a source of pride and a recognition and an educational opportunity.

There are so many ways to make small changes, like working with the county to get approved French drains and have gray water versus black water that could be able to be something to be permitted in a new home, or restoration of a home. Right now, you can't do that and not get dinged for it big time. I'm thinking of TwispWorks where the splash pad is. Splash pads and pools are great, but what if you had a demonstration wetland next to the splash pad that took all that water and recycled it back through instead of it just going down a drain. In places where it makes sense to be a demonstration, make it a demonstration of the value of water.

You could put some signage out at these places where irrigators and agriculturists have pivots, and say “pivots are saving this much a year if used properly.” People love seeing the apples, pear signs and the Okanagan and I think there's just a lot of opportunity to make it more clear what's happening with our water why it matters

(Gert) And that there are people out there who care, right? Right next door to you, look at what they're doing. You could do this too. Be encouraging, instead of railroading.

(Alexa) People call us for beavers. It’s not our common call, but there are plenty that do, and we have a list that when we have beavers, if don't have a place that we already want them, they can be relocated if it’s suitable. It rarely works out unless it's a very large property and it has beaver food, but a lot of people are interested, so we need to capitalize on that. We've actually showcased Gert a ton because her property was super affected by wildfire, and so restoration was a really great option for this reach of Chiliwist Creek. It was the best opportunity to bring beavers back in once we got wood back in the stream and started slowing the water down, pushing it around. It had eroded, incised after the fires and debris flows, in some places 12 plus feet, and everywhere at least three to four feet straight down. We've spent three years now, only three, and it is almost back up to the flood plain, and there are beavers there, and the beavers have made it much better. It’s all on private lands, but it takes enough space to accommodate it. We've planted more food, and she just happens to have a lot of great food in the area because she's not a landowner who would come and clear all that thinking like that's the thing to do, clear all those native deciduous trees, riparian trees, out of an area. But a lot of people do that. They're not supposed to. That is actually a County ordinance to not clear riparian habitat at this point, though, it used to be County and USDA and NRCS would say, ‘clear all that wood out of there, because we want water to be conveyed efficiently.’

(Gert) There was a tour of the Chiliwist Creek this spring and some people came who want beavers and have a place for them, some came who don't want them. But, man, I had so many people come up afterwards and say, “Thank you for doing this. Thank you.” They thanked me. I'm still sort of digesting that, how fabulous, how wonderful it is that the people who can't do it are appreciative of the fact that somebody is doing it. That would hold true with watershed stuff as well, I would think.

(Alexa) and that does lead to an incentivizing program idea—to incentivize, and then continue to incentivize, doing something that is good for the community, by storing more water on your property, by saying, I'm going to give up some of my “usable” acreage to allow water to expand. There's no conservation incentive that exists right now for that.

Friends of ours in Virginia, who are also doing beaver work, tried to pay people to keep beavers on their property, but then she realized that the only people who really want to do it are people who aren’t using their land (agriculturally) and the beavers are already there. It

doesn't make sense; they're not needing that incentive to do it. It's the people who need the incentive we want to address – kind of like the conservation easement process. For conservation easements it's usually people over in the Okanogan at least that don't want to give up their land, but they're about to lose their land, and a conservation easement can be the way they get to keep their land and actually get a little money in the bank for it.

I'd like to see more NGOs and grant opportunities to say, like, "Okay, you are taking one for the community by keeping beavers on your property. They're cutting aspens down. They're flooding areas that you've never expected to be flooded. That's a challenge for you. Here's an incentive to say, thank you for taking one for the team." And that's when everybody comes and says, thank you for taking these beavers on and keeping water around for us longer. There are so many, so many examples and papers, research papers, showing that in a time of drought, beaver complexes are the only wet place most of the time.

It has to be ahead of time. This can't be last minute. Beavers can't save water when there's no water around, yeah, it's them banking it year after year after year, that keeps the soil saturated and keeps the water moving slowly underground back to surface water. Eventually it will be too late to look to them to partner with.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
If we can just help people tolerate beavers more, it is a big natural solution, not the only one needed, but it'd be silly not to look to them as partners in this process.

# Andrew Denham

Public Works Director
Town of Twisp
April 29th, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
I'm the public works director for the Town of Twisp. I've been in this position for 11 years, 33 years in public works. My role as far as drought and water resources would be that I'm responsible for the for Twisp's water system as a water purveyor for the town residents and a few county outlying residents as well that pay for our services.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
We do well monitoring. The Town of Twisp has three operating wells, and we do not see much fluctuation year to year. We have some historical record of what those well levels are but it is not nearly as is as extensive as we'd like to really be able to graph what, over decades, the wells have been able to produce. As far as our system and if drought would affect it, we would be the last man standing, so to speak, in in terms of drought. Everything would have been dried up in the whole valley before the Town of Twisp's water system would not be able to produce. There'd be much, much bigger problems.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**
Specifically for the Methow? Very low, very low. Two.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**
For what I'm responsible for, the impact number would be zero, I mean there's no impact whatsoever. For the Methow, you know, still, to be honest, low, like a two.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**
(2)

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**

The county has taken action with the moratorium, I think, generally speaking, that's good for the environment, and it’s good for the Methow. We live in a special place, and it's become kind of self-limiting because of the water resources.

I don't know the detailed plan is as far as the moratorium for the county, but continuing with the plan of fairly significant restriction to rural sprawl out in the county, and focusing on those water resources in in the municipal areas where we can regulate and be efficient with the water use, I think that's very critically important.

We do a lot for water use efficiency. We're required to by the state. Annually, we have to identify what we are doing with our water resources in an efficient manner. We have to prove that to the state, and so one of the ways we do that is we do leak detection. For example, we spend thousands of dollars for agencies to come in. We just finished that. We do that annually. They identify, usually in our system, about five or six leaks, and we go immediately out and repair those leaks so that we can minimize wasteful water loss.

The other thing that we do is we have a tiered billing system, and we've seen significant positive impacts by having a tiered system. Customers are allowed 800 cubic feet of water in a month during the winter and 1200 cubic feet of water during the summer for irrigation. If they go over that, they're charged at a significantly higher rate. Before we implemented that several years back, because there was no restriction to the use of the water, we would pump significantly more. Right now we pump about 80 million gallons of water in a year, and in 1995 we pumped 170 million. It's roughly a 50% reduction, and that's not taking into account the growth. In 1997 we were about 900 customers now we're 1100 customers so we've grown by 20% but yet still reduced our water use by 50%.

We’ve recently completed $10 million of water system improvements, including drilling a new well and updating all electronics, putting wells on VFDs for an example, for power savings and we’ve created new water distribution throughout the entire town. We have very little old and leaking distribution in town. One additional thing that is funded is a $5 million downtown improvement where Glover Street, our main street from one end to the other, and a little piece of Twisp Avenue, will be fully replaced. We’re that is we're in design right now, and it's fully funded to replace that starting the beginning of 2026, next year.

We’ve replaced miles of water distribution. It’s been five years in a row, from 2017 to 2022 just replacing pretty much everything that we could. We resolved all of our low fire flow areas in town, areas where fire hydrants didn't have the required fire flow volume. Being in a wildfire zone, we put a pretty high priority on funding and replacing those areas first. Now the Town of Twisp is has adequate fire flow.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**
I haven't put a whole lot of thought into that, but I would think so. I haven't really considered other sources of use.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**
Just information, getting the message out is probably a big one. People in the valley hear about drought, and water use and whatnot, but don't really internalize it, because they just don't know enough about it. I think the people that are genuinely interested are going to take note and hear the message, and those that aren't aren't. You can always continue to try to reach as many or more Methow residents as possible in different ways, but there's only so much you can do.

There are opportunities, but carrying them out is another thing. For the town, we have had this vision of having a weekly or monthly report from the mayor and from town hall, like the town hall forum or something like that, where we can get push information out better. That would be a way to do that. Social media is a big one, but there are still people that would only get that information through some type of a weekly or monthly letter to the editor from town hall.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**
As a whole, I don't have a very good sense, to be honest with you, I wouldn't be able to answer that. I'm really just focused on the Town of Twisp, so out there in the residential rural community of the county, I don't get a sense for everybody's awareness.

*How about for the Town of Twisp itself?*
Pretty darn motivated, because it impacts their pocketbook in a number of different ways. They're paying for our system, and they know that if our system is undersized or outdated we're going to have to go do capital projects, and that's going to impact their rates.

**How would you rate the community's current motivation to make needed changes?**
For the Town of Twisp itself I'd say seven to eight.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**

The towns invest a tremendous amount of effort, time and money into assuring our infrastructure, our water, all of our infrastructure, is resilient, it's here for the long haul, it's adequate, it's safe. We've done that in a way that going forward, we can grow three times our size and still have adequate water rights and adequate volume and pressures and have a resilient system. To try to match that populace, so say another 2000 people, if you were to put that impact of water out in the rural county it would have a massive impact. You wouldn't even be able to really put a number on the negative impact to the watershed that that would have, compared to 2000 residents that are growing the footprint of the town of Twisp or Winthrop, and using a very small piece of what our infrastructure is. It's cost efficiency and water use efficiency both.

# Bill Moody

Former smokejumper and air attack coordinator
USFS (+BLM and other contracts)
May 1st, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
My background fire oriented. I started up here as a smoke jumper in 1957 and I jumped for 33 years. I've seen a lot of the changes, not only here in the valley, but in the western US, in terms of vegetation and recurrence of fire and the impact of many years of very aggressive fire suppression, resulting in a lot of heavy growth. After I retired, I've continued to do a lot of air attack work, where I'm coordinating all of the air resources over a fire. I've seen a lot of fire, not only here, but also in Alaska and California and even Arkansas, Oklahoma, North Carolina. Nationwide. I continued to work on a 747 air tanker project concurrent with all that. I've been involved in fire since high school. That's where I come from, on the fire suppression part of it.

I've been a longtime forest service employee, doing a lot of the air work for the Forest Service, basically summers of 1956 up through 2016 or 2018. Then after that, just general protection of US Forest Service, BLM, any kind of wildland environment with air tankers. I've been a resident of the valley temporarily from '56 to '69 than full time since '69 so I've been a long-term resident of the valley. I'm obviously very concerned about wildfire or concerned about some of the issues you are in terms of water resources and the impact of drought.

I don't know if you followed the Orchard Hill Project. They proposed 53 units over on that hillside, and I was part of a group that took issue with the project in terms of the density, and what impact fire would have on that particular sub community of the larger community up here in the hill. I looked at it from what the codes have been, or maybe should be, and the potential eventually for a major wildfire coming through, and the impact of that high density housing, and the risk it would face.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
Having a background and interest in fire, I track what's the snowpack and what's the situation in eastern Washington, and in the last couple of years, it's gone to rather extreme in some parts of eastern Washington. I understand what we're looking at the current moment is concerned to what a light to moderate drought, at least in this part of the Cascades in Okanogan County. Moderately dry to a moderate drought, and I think we're already seeing some of that impact in the amount of water and spring water. I can see the potential impact, unless we get into a little bit of a mini wet cycle between now and in June. June seems to be a

determiner a lot of times of the fire season. If it's a wet June, a lot of times it'll create a lot of growth, but the fire season seems to be shortened and maybe not as impactful. But I think the trend is just increased drought. I see that the trend that started has had a kind of a carry over, I think, for the last couple of years. Looking at the snowpack and the spring weather we've had, such as today, I think the impact is going to be greater. I think that the moderately dry is going to increase in scope to maybe more extreme drought as we go into June and July, August.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**

I would say it's quite serious, from the standpoint of looking at the potential. Looking at what I'm reading right now, maybe seven. It's quite an impact on the agriculture, a lot of those people who are running cattle, their hay or what little grain is grown here, a lot of the folks that depend on their vegetable gardens, they could potentially be impacted. I think it could have a very serious impact on recreation. I look at it from standpoint of, if we do get fires, which we will, the impact of those fires on the particularly the National Forest, and a lot of the recreationists that like backpacking and the outfitters and so on that take a lot of people, because when we get the fires, we get the smoke and we get the fire danger, and those trails are shut down, so it has a very big impact. As far as the tourism industry, even us here in a very small bed and breakfast every year, once we get the smoke we get people canceling. On a larger scale, all the accommodations throughout the valley and Sun Mountain, every place feels the impact. Sometimes it even goes so far as to shut down the highways, like it has the last several years and so you lose the potential for even people who would want to come in and sniff around in the smoke, though they could go around Stevens. It has far-reaching impact, considering the smoke as well as the flames.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**

If it continues it's going to be a recurring difficulty for the tourism industry, and also the agriculture, and I think it's going to probably result in more fire impacts. When it happens a lot of times it takes quite a while to get the people back. I know, at least in our case, the tourists track the least little bit of smoke, and they remember the year before if it was smoky and takes a while for them to try it again. I think the impacts sometimes last for a longer period of time and if it happens back-to-back, some of the people that are in the marginal end of survival in the recreation industry or tourism industry are going to be lost. They depend on those summer months, four or five months to make it. Make it or break it has kind of been the history of the valley since I've been here. Loss of businesses is regular; a lot of it is due to the general impact of fires and when the when the pass opens or when it closes, something like that. I think we're just going to continue to have an increased negative impact on the valley and on all aspects.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**
I would say a 9 or a 10. We can survive it, because we don't really depend on it; I mean, we have guests right now and we don't need that much to survive, but some of the businesses do.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
I'm talking fire so I think there's some things we can do to mitigate the fire risk. We can't do much about the amount of precipitation we're going to get over a period of time. One small element would be a fire prevention program, and that is going to can eliminate one, two or a handful of fires each year. For example, two or three years ago, we had the two large fires In the upper valley. One was lightning, one was person-caused, and it went to 52,000 or 76,000 acres. I just read the person that took over the DNR position that Hillary Franz had, that person sent out a note yesterday that said prevention took a little bit of a cut in this latest budget coming out. A strong prevention program is just one small element.

I think it takes the state and local groups working closely with DNR fire and the Forest Service, and the agencies that serve this area, Fish and Wildlife, a little bit of the BLM and the Okanogan Conservation District to address things thinning and prescribed fire. From being on fire teams, particularly the aerial part of it, and watching some of the larger fires I think that the thinning, particularly prescribed fire, really makes a difference in fire behavior. In the Carlton complex, some of the prescribed fire activity they had done earlier in the Leecher Mountain area really seemed to make a lot of difference in the fire behavior. I think in whatever way you can encourage thinning and prescribe fire, it's certainly going to make a difference in the fire behavior, and maybe create opportunities to stop a fire before it continues beyond in larger areas,

Another one that I think would work even in the communities in the valley would be in wildland urban interface codes. In some areas, particularly down in Central Oregon, they have very well developed and aggressive program in a lot of their fire codes and so on. I think whatever legislation can be done effectively that might have an impact on land development would help. I know we have the international wildland urban interface codes came out in 2018. I think that whatever politically can be done to require and implement the latest international wildfire urban codes would help. Part of that would be the wildland risk assessments, and I don't know if those can be required or not, but probably with the right legislation they probably could. And of course, implementing FireWise. I think those programs would help mitigate what's going to happen, because fires are going to happen. We still have the lightning element there, and we still have enough dumb people out there that are not going to be positively affected by a prevention program. We're still going to have wildfires under very adverse conditions, like we get here, and coupled with cold fronts coming through. What happened in 2014 is that multiple cold fronts were staggered about a

week or so apart, and with a 40-50 mile an hour winds down the Methow and all these other drainages, it's pretty hard to be effective at containing it in those conditions. I think all those programs could make a difference in the impact of the fire on individual properties, as well as the spread and their ultimate size.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**

Yes, I would say so. Does nature include recreation? I think for main water users, you need to look at recreation, I particularly look at the impact of rafters. The companies kind of come and go, but rafters and kayakers, they all bring money and have an impact on the valley. Fishermen too, certain times of the year, it depends on steelhead and how much water they open up. But certainly there are a lot of recreational uses of the Methow River and some of the Twisp River and to a lesser degree in the Chewuch. I would list them though I'm not sure how you'd classify them. Otherwise, agriculture and the towns for water supply make sense.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**

Well, the challenges are there. I think we have a mixed community, but certainly challenges are there. I see Methow Valley Citizens Council, Methow Conservancy, take a very active role through their media to get the word out and to generate quite a bit of support for a lot of these issues. But the challenge there is maybe meeting the large tourist crowd that comes in, the tens if not hundreds of thousands of people that come through the valley, either transiting through or are stopping for multiple days to enjoy the general recreation. A lot of the challenge is getting the message to them, and how you do that, maybe through different media, different advertisements, probably a lot of social media. I think a large part of the permanent community here are very receptive, but even with the locals, there's an element there that probably is not as receptive.

I think there are opportunities to create awareness. Through MVCC and Methow Conservancy and some of the different programs there are often presentations available to the community. Through the Methow Valley News would be another vehicle. I don't know if a very specific presentation would be helpful, like at the barn or the community center, but I think you might be drawing in the same people that would be responding to MVCC or Methow Conservancy. In terms of the fire there's the fire danger signs along the highway. There's one as you go across the Chewuch out of Winthrop, adjacent to the Forest Service. There might be other opportunities in Twisp to highlight the fire danger again, though that's just one aspect of it.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**
I think there's a percentage of people here that would be compliant, or who would be willing to make at least some level of a change in their lifestyle. I don't what the percentage would be, but I still think there is a large percentage that would say "no, I grew up here, I've gotten by and I'm not about to make any more changes." I think there's two different attitudes, like I mentioned in a previous question. There may be some people who would be more likely to make a change in their lifestyle, but only probably so much.

**How would you rate the community's current motivation to make needed changes?**
If you had to take an average of the community at large? Three or four.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
After you compile all your data, are you going to have a public meeting and talk about the results? It looks like it could be multi-agency involvement for a presentation, so it comes from different perspectives. It could be that all the agencies involved have somewhat similar concerns about the impact of the drought. The council should consider having a public presentation on the impacts, and by that time, we'll be going through another fire season.

That's one thing I found quite interesting a couple of years ago, when the fire teams made presentations in the evening, both in Twisp and in the park in Winthrop to go through an update on the progress on the fire. I thought it was a good turnout, particularly the first ones up in Winthrop. Of course, they had the two very large fires, but they had the incident commanders and their operations people and the public information people out for hour and a half meetings. They updated on progress on the fire and what the forecast and the impacts were and those meetings were very good. People do seem to be fairly hungry for information in this community, and generally the public information officers are pretty good. They'll post information at Hanks and maybe up in Winthrop and give a daily update on the progress of the fire, but it certainly highlights that fire is very serious issue in the in the Methow, and it has been and will continue to be. I know a lot of the fires they've had so far in eastern Washington, where the fire behavior has seemed to be ahead of the normal fire season. The snowpacks, down as much as they were, it depends on which basin their reading, but anywhere from 65 to 90% of normal. While that was pretty much through the whole Washington Cascades region, some places were even worse than that, and that is usually a pretty good indication of what's the potential is for what's to come.

# Casey Canby

President
Chewuch Canal Company
May 9th, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
I'm the President of the Chewuch Canal Company. The Chewuch Canal Company is one of the larger irrigation companies in the Methow Valley. It was established in 1910, so it's been around for a while. We have two sections of our irrigation system; one has head gates up on the Chewuch River, and then it flows five and a half miles into Pearrygin Lake, of which we own the top five feet as a reservoir. From the lake, there is a lower section of the canal company that runs a little over six and a half miles. That section is currently piped, and the upper section is currently an open ditch. I became the president of the canal company when the previous president passed away two and a half years ago.

We have 175 shareholders in the Canal Company. The Canal Company is a 501-c12 which is a nonprofit agricultural designation by the IRS. It's basically an agricultural co-op, and our product, our "crop," is water. Okay? The Okanagan Electric co-op is also a 501-c12, and their product is electricity. These were set up for small organizations on a tax exempt basis. That's kind of the whole idea behind it.

The fiduciary duty I have to the shareholders is to deliver their allotted water at the lowest possible cost to them from May 1 to October 1. That's our irrigation season. Currently, we don't have a specific drought policy statement at the Canal Company, and the reason for that is basically our water right on the Chewuch canal is a senior water right that has no conditions for when we can't take water out of the river. The only thing that can keep us from taking water out of the river is if the river is so low that we can't get it through the head gate. Many irrigation systems or organizations are restricted if a certain CFS is reached in their source of water they're required to shut down. That is not true for our particular water. The other thing that makes it complicated, and at some point we're going to have to deal with this as the board, is the upper part of the ditch is open and flows into a reservoir. The lower part of the ditch has five feet of reservoir that it can work off of, even if the upper part of the ditch can't get water. So how do I take the shareholders of the upper part and shut them down and not shut down the shareholders on the lower part, since they all pay the same assessment? That's just a practical thing, it's not like the end of the world.

One of the things that we are trying to do at the Canal Company is we're in the process of working with the Okanagan Conservation District to finance the piping of the upper five and

a half miles of the ditch. That's our recognition of the drought, because in the Methow Valley as a rule of thumb for every CFS that is brought down the open ditch, we lose 50% of it to transpiration and evaporation. If we can stop that, in other words, save 50% of our water that's being lost by not having it in a pipe, then we're helping keep water in the river during low periods, and that is not only beneficial for the river in general, but also specifically for fish. Under this proposal trying to get the financing to pipe the ditch, right now, we have a legal right to take up to 34 CFS out of the river on an instantaneous basis during irrigation season. If we can get it piped, we are willing to give up 17 cubic feet of that and leave it in the river. During the freshit period of time right now, where the river's running hot with snow melt, it's really not a huge amount of water; 17 isn't a big deal. During September, it becomes almost 35 to 40% of the river flow, so it has a significant impact, and it's significant as we think about drought hitting home. That's how the Canal Company, who is a major user of water, is trying to improve its infrastructure, not only because it makes sense for us operationally and it's easier to run, but also because we need to get it done, because we're going to be in these drought situations on and off for the foreseeable future.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**

I don't really know anything about it from a fishery standpoint, or silviculture or forestry standpoint. That's not my focus; my focus is to try to move that water as efficiently as possible. For my shareholders, some of them are agricultural producers, and some of them are simple homeowners, but as long as they use it for beneficial purposes, then that's what I focus on. We haven't had a situation where we've had to shut our canal down yet during drought period. In the last two years there have been very low flows in the river, in the Chewuch, especially late in the summer, that August, September, window. But it hasn't been so low that we had to reduce the amount of water that we've taken in. All our shareholders have the water they need. I haven't heard from any of them that they've had problems because of the drought in producing their cattle, or raising their sheep, or growing their hay, those would be the three main things. I haven't heard any feedback from anybody saying that that's been an issue.

It's little bit complicated, because it's not something where there's only one variable that is moving. You have a drought situation, but at the same time you also have these programs in which the efficiency of using that water has been improving through pivot systems. There are a bunch of irrigation systems that are much better. There are ranchers who have been approached by various entities to have their piping systems improved that were 50, 60, 70, years old, and now they're putting in better piping systems. There is the lack of water being lost from open ditches. One of the things that I guess we could do, if there would be money available, is we could help educate or get our residential users to use more efficient sprinkler heads and so forth. But that money would have to come from somewhere; if I propose that with no funding, nobody's going to volunteer to rip up their irrigation system and do that.

It's the big agricultural people that really suck up the water. When one of my ranchers turns on his five pivots, we see the water drop in the canal, so we have to increase the flow in order to compensate for his use. But there are only a handful of those type of situations in what's going on. Everybody else seems to use their water pretty judiciously. Our water master, who monitors the whole system during irrigation season, he goes around and he makes sure by visually looking whether people are using more water than they're allotted. He can just look at what people are doing and say, "look, you only have got 20 shares, which gives them a right to do 20 gallons per minute instantaneously." They can use that 24/7 during that period of time, but they can't bank that. In other words, they can't say, "well, I only I only irrigate Monday and Friday, so I build that up over seven weeks, and then I can then use whatever I didn't use in those other days." No, it doesn't work that way. It's only when you're using it. That's how much you can use. You can tell by just going around and seeing how many sprinkler heads somebody's using. We don't have meters. We don't have any money or people to monitor it. For a simple small company like the Canal Company our total budget for the year is $70,000, which isn't a lot of money. We try to do the best we can.

The big thing for the drought, as far as we're concerned, is trying to get this ditch piped and it's tough, because the state budget is very thin right now. They're not throwing money at people, that's for sure. We've got to see what they're going to do, hopefully in the next couple of weeks when they finally pass a budget. We'll see how much money they can come up with to get this project done, and then we've got to scramble around and find money outside of that too. I'm sure they won't fund 100%.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**

I think it's probably somewhere low, it's below five and above four, or three, somewhere in there, three to five, something like that. It's mostly because it causes us to become very conscious of those low water levels in September. The practical aspect of it is that downstream, my shareholders, they don't see anything. It's an operational thing with my water master and myself trying to keep things working as best as possible, but I think we may be an exception to the rule for that. There are a bunch of older canal companies that are still open ditch that may be shut down, but so far, Ecology hasn't been really aggressive about that.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**

I think that if it gets to that point where we're in a severe drought situation, it's going to impact it by dramatically reducing the amount of growth in the upper valley. Growth in the upper valley would be Twisp to Mazama, and that growth is just code for people building houses; that development will stop instantaneously. It's strained right now, but it will get to the point where you simply can't do it—there will be no more water available, period. We have

another project that we're working with Ecology and the Town of Winthrop on to create a new reservoir right in Pearrygin Lake for the Town of Winthrop that they could use for their future water needs. It's complicated. I want to get into it. It's really complicated. Basically what would happen is that the Canal Company would allow the Town of Winthrop to use our upper ditch to fill this additional reservoir in Pearrygin Lake, and the Town would then be able to re-time the water. You can't use irrigation water for domestic or municipal purposes, that's against the law; you can only use it for irrigation purposes, agricultural purposes. But if you can show that you can move that water 12 months out of the year, then it technically can be considered retimed and can be used for municipal purposes.

What the town would do is take this reservoir, spill it down a little creek called Lake Creek, back into the Chewuch River, which would then allow them to pump it out of the Methow River downstream. That's being put together because everybody knows that there are no more water sources in the upper Methow, and this is this is trying to use some of that water for future growth of the valley, concentrated in the town of Winthrop. We're in negotiations with the town, the Canal Company and Ecology on defining exactly what the town boundaries would be, and that that water would have to be used in that boundary for 20 years. Nobody knows after 20 years what will be going on, so to restrict it in perpetuity is ridiculous. That's not a negotiating point. The idea is that it we try to concentrate in the valley and relieve some of the problems of not having enough water, with everybody punching wells out in the out in the open. The Colville tribes are behind that concept because they want to try to keep the rural nature of the upper valley as much as possible. So it's complicated. There's a lot of people involved. So that's the impact on the upper valley, right now,  it's relatively small.

In 10 years, I don't know, I won't be involved, and in 20 years, I guarantee you I'm not going to live that long. But you have to do it. The Canal Company doesn't really receive anything for trying to create this reservoir aspect of it, other than being a good citizen of the valley. We do get the benefit of having other partners now who will lobby for us to get this piping done, because that will make it a reliable way of getting that water down to them. If we have to rely on the upper ditch, it becomes problematic. We were digging an avalanche out just five days ago on the upper part of the ditch so it could get snowed in; it just gets complicated.  The pipe makes it better. There are downsides to it, though. Certain trees are going to die from the riparian areas that had developed over the last 100 years Another way of looking at it is that that's an artificial ecology to begin with, because without the canal it wouldn't be there. But if you own property along it, and you really like these giant cottonwoods that have grown up, it can be dispiriting.

We'll try to mitigate it as much as possible, and the shareholders who are worried about their trees can use their water to keep those trees going. That's up to them. But if the trees die, they're then legally liable for the damage that they cause when they fall down. It's a cascade of decisions, there's no one thing that makes it better. I don't have any direct drought worries,

other than that if we run out of water, it changes the character of the valley. But I don't know how you stop that.

I think the other thing you have to consider is that both the Methow River and the Chewuch River valleys, and to a certain extent the Twisp Valley have never been huge agricultural areas. Most of the people who have lived there for generations and generations, they all used to have two jobs. They'd work in the sawmill, and then they go home and farm. That's a sweeping generalization, but that's the history behind the agriculture aspect of the upper valley. There were a handful, literally a handful of, people who raised cattle as their sole source of income, because they could graze them out on the Forest Service lands. But, the valley floor was never that big as far as agricultural concerns. That's why the valley wasn't very populated until highway 20 came through, and suddenly it became a recreational area and now its biggest product is secondary homes and tourists.

It's hard to say what impact drought has on tourism. It depends on what they're trying to do, but it would impact the fact that a lot of those areas would be more prone to fire. They wouldn't look as beautiful as people think they should. As they dry out and the forest changes and the rivers aren't ratable, because it just isn't water in them anymore, those aspects would have economic impact. And it will definitely change the social character of the valley.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**
I think it gets worse. I think it's a sliding scale; I think right now it's relatively low in the in the valley, because of the lack of dependence on water for the economic survival of the Valley at this particular point. But if the current trends persist, as far as the number of low years of water that we've had, the water table is going to dry up. People's wells are going to start to go away, and that's going to have a major impact. I think it's like three or something like that now, but in five years, it could be five or six, and in 20 years, it could be a 10, I have no idea.

The other concept out there too is that the whole valley is one giant aquifer. The visible part is the rivers, but the rivers are connected to everything else because it's one giant glacier basin filled with glacier rock. If that water starts to go away, it impacts everything, not just the visible river, but people's wells, the wells for the towns and so forth. When those wells start going dry then the whole character of the valley changes.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
The knee jerk, smartass answer is stop growth. Good luck. That's fantasy. People are going to come over and they're going to continue to want to live there, and the people who live there are going to probably continue to have children and still want to be there. You can't get rid of growth, but that's the smartass answer. If you stop growth, that's the best way to mitigate water use.

One strategy would be to put in more stringent regulations on how you can use water and how much water you can use, both efficiency and total quantity. That's the only thing to preserve water. With efficiency you're depending on technology to make the water go longer than it can, but if the general water is going from ten to five to two, there's no technology that's going to solve that.

We also don't know that if the snowpack, which is our summer water source, is going to continue to be unreliable, on a trend line less and less—that doesn't necessarily mean that there's less water. It just may be in the form of rain. The question then becomes, if it's in the form of rain does the ecology and geology actually allow us to keep the water tables high, or is the geology such that it just runs off. If it just runs off, then they have to figure a way of slowing it down so they can use it and create this artificial snow pack kind of idea like a reservoir. But to try to create a reservoir in the upper valley, there's no place to put it unless you were you going to flood people's land. Who's going to give up their land voluntarily? Not many, and good luck trying to put a dam in the wilderness. I know it sounds ridiculous but that's kind of the way it is. It's a really tough problem. I would say that the Methow Valley will not affected as much as the Okanagan Valley. Okanagan Valley has higher percentage of population dependent on agriculture, especially the fruit industry. Lack of water in the orchards is death, it's just as simple as that. They have a bigger reservoir, the Columbia River, but lack of water is lack of water. The impacts on the upper valley, to me, have more to do with housing and recreation, not agriculture. The agriculture could go away, and nobody would really even notice it.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**

Yeah, it is. I don't know that the order you put them in is the order that they're prioritized. I would think it would be more town, agriculture, in-stream flow order. I think the towns are the biggest water users by far.

I'm not sure how you would classify the economic impact of the lack of water. If wells go dry, it is going to affect the rural character, people outside of towns first. That'll be a major impact. I don't believe it'll be an acute situation where one year it's okay, and the next year it's suddenly that there's hundreds of wells going dry. I don't think that's the way the valley works. One year could be five wells in the next year it could be eight wells, and the next year it could be 10 wells, you know, and then a period of time where nothing happens, and then it starts all over again. That's kind of the cycle of weather. But the climate is definitely warming. It ain't going away. It's not going to get wetter. The precipitation could change its form and that will also have ramifications. Nobody's really predicting that the Northwest is going to get drier. It's

just going to not have as much snow, which is going to affect how you collect the water and when you use it and all that kind of stuff.

There is an example from Seattle in the early, mid 80s. There was a drought and they asked people to voluntarily reduce their water use in King County, and people did to the point where they dropped their water use to a 20 year low in one year. People became really conscious of water use, whether it was washing their cars or watering their lawns, and that dramatic drop helped preserve the reservoir system over here. It also cost the City of Seattle millions of dollars of lost revenue. So then they needed a way to counteract that. What they now do is charge a summer surcharge for water use, so if you use your water in the summer over your base amount, it's expensive. Let's say you have an average house over here and you water your lawn three or four times a week in the summer, you can get a bill of 700 or 800 bucks a month. It keeps people from watering their lawns, they just go dormant. That's something that maybe over in Winthrop and Twisp and so forth, areas who have control over their water systems, maybe they have to come up with tiered water use charging in order to conserve water. People sometimes voluntarily do it, you can't tell, and when they do, then your revenue goes down. It’s really funny, people do the right thing and then it costs them.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**

There is always going to be a group of people who are totally engaged and want watch every drop of water they use and then criticize other people who water their lawn. That's just human nature. That's just the way communities go together. The only way to stabilize that so everybody has skin in the game is to come up with a monetary system that costs people who waste water, however you define that. That then becomes a political issue, so good luck. We know what politics are like these days. Hopefully we still have a discussion type of society, not just one person telling us what to do.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**

I think in general, in the Methow, it's probably pretty good. I think it just depends on who's delivering the message. If the message is being delivered by people who represent the secondary homes and part-time residents of the valley, it will be pushed back and rejected as tainted by the people who live there on a full-time basis and people who have lived there for generations. In my opinion, you need to find the people who live there, who use the water for their livelihood, whether it's the agriculture, or recreation. Get them convinced that you need to have policies that help restrict water use, and encourage conservation and have them deliver that message.

It just depends, because the valley has two societies. They have the people from the west side or wet side, who have sloshed over the mountains with a lot of money and have created the tourist and second home economy that exists there now, and then you have the people who live in the valley who basically run that economy, and they approach problems from completely different aspects. The people in the valley who have lived there for generations, their way of solving problems is through personal relationships and experience. So if my horse is sick, I don't immediately pick up the phone and call a vet. I pick up the phone and call Claude Miller, who has been raising horses for his entire life, and say, Claude, my horse is doing this. What do you think? If I'm from the west side, the first thing I do is I research vet journals online, try to solve the problem theoretically, go to this and that, and then make my decision based on that. Because that's the way people from that side are taught; they're all highly educated, and so they fall back on their educational training in order to solve problems. The people in the valley are highly educated in a different way. To make the water use issue most appealing to those people, it has to be homegrown. They have to see it as a problem, they can't be told it's a problem, otherwise, it's just outsiders telling them what to do and screw them.

Andy Hover is a prime example: he's grown up in the valley, you know, his dad's been politically active for years, his brother is the largest alfalfa producer in the valley. He's kind of got his feet in both sides. I think he understands that it's got to come from a local homegrown effort. He knows the rest of Okanogan county too, which is totally different than the Methow. The rest of Okanogan county is relatively poor, very much so in comparison to the second home people who drive the economy in the upper valley. He knows that, and he understands the differences for how to make things work.

**How would you rate the community's current motivation to make needed changes?**
I think the community in general in the valley is very much attuned to being progressive, and I mean progressive in the fact that they try to work together and use the current political organizations, whether the Town or the Fire Department or the Police Department or the County, to help solve problems that they recognize. Whether it's traffic problems, or recreational things, or it's school situations, I think they pretty much come together, and for the most part, they respect each other's different opinions.

I've owned property in the valley for 38 years now, so I've been around and I know both sides of the of these two societal groups that I tried to describe, I know some of the founding families. I know them by working with them, working for them. And I know the people from the west side too, because I've spent half my life in Seattle. But again, it comes down to who is the information coming from? The Wagner Pool taxing district plan that failed is a great example in one direction. The prime example of how that working from the grassroots on up can be really successful is the ice hockey rink. That was so successful, and it started literally as a plastic tarp with 2x6's around it. It was all grown from the bottom up, and so everybody had their opportunity to buy into it, and those people who didn't, that was okay, they still

supported. Now it drives, a part of the winter economy in the valley. It wasn't imposed on anybody. I'm just saying those are two ways of approaching things. One is really popular, but it took time. The other one got snuffed off because people don't like things shoved down their throats.

*You're saying community is fairly motivated, if you had to put a number on it what would it be?*
I would say to probably a six, because there's always that 40% who don't like anything,

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
Our piping project helps get water for the city of for future use in case of drought, it makes it more efficient so we're not wasting half of the water that we are using right now. It's a win, win for everybody. I just needed a couple of million dollars.

# Chuck Brushwood

Senior Policy Advisor
Colville Tribes Fish and Wildlife Program
May 7th, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
My job title is Senior Policy Advisor within the Colville Tribes Fish and Wildlife Program. I've been with Colville Tribes for about 16 years. My job has evolved over time, but generally speaking, I report to the program director of Colville Tribes Fish and Wildlife Program. My portfolio includes a variety of anadromous fish, meaning salmon and steelhead and other resident fish and wildlife issues. Primarily because of Endangered Species Act listings and recovery efforts, I would say about 75% of my time is focused on salmon and steelhead. I'm the Tribe's representative to the Upper Columbia Salmon Recovery Board. I'm involved in some integrated water resource management and planning down in Icicle Creek in the Wenatchee. I'm the Colville's primary representative for the Icicle Work Group, which is modeled off of the Yakima Basin Integrated Plan.

As for my background, I have an undergrad degree in ecology. I worked for a decade with the US Forest Service in various capacities, including working as an ecologist for the Portland Forestry Sciences Lab doing forest health monitoring. I also have a law degree, and I came to Colville after law school. I'm involved in a whole host of fish and wildlife management jurisdiction and interagency coordination. The Colville Tribe have an agreement currently called the Columbia Basin fish Accords with the three federal agencies that operate the hydro system on the Columbia River: Bonneville Power Administration, Army Corps of Engineers and Bureau of Reclamation. In that agreement, among other things, Bonneville has committed a significant amount of funding currently in this fiscal year, about 19 and a half million dollars annually, for the Colville Tribe's Fish and Wildlife portfolio, in part to help the three agencies and Bonneville meet mitigation obligations that arise under the Northwest Power Act and the Endangered Species Act. I'm the Colville's point of contact with the other agencies towards implementation.

Among other things, I have an interest and some expertise in water law and water resources management. In my free time I serve on the Okanogan County Water Conservancy board, which is an independent body of local government established by the legislature to assist the Department of Ecology in facilitating water rights transfers in the county. I've been on the Conservancy board for about seven or eight years and have been engaged in a variety of water resources issues in the upper Columbia and specifically in Okanogan County. I mentioned the BPA funded Accords that supports the Colville Tribes Wildlife Program; we

have a dedicated project that BPA funds to acquire land and water. Over the last 16 or so years I have been involved in land and water acquisition projects for the Tribe, with the intended goal of improving instream flows for the benefit primarily of ESA listed salmonids: Upper Columbia Spring Chinook and Upper Columbia Steelhead, both of which federally ESA listed. I was engaged in some watershed planning in WRIA 49 which is the Okanogan subbasin, as part of the Streamflow Restoration Act implementation. I worked with the Watershed Council, or the planning unit in the Okanogan as a technical advisor to that planning effort to help develop an addendum to the watershed plan to meet the requirements of the 2018 Streamflow Restoration Act, meant to address issues related to the consumptive use impacts of permanent exempt wells over a 20-year planning horizon. I have been engaged with the Methow Watershed Council over the years on discussions about the Methow instream flow rule and the Water 2066 effort. It was part of my job and interest in trying to protect instream flows and improve habitat conditions for with a specific focus on ESA listed salmonids, but other aquatic life as well.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**

Throughout the Upper Columbia and specifically in the Methow, we're seeing increasing frequency and intensity of drought conditions, particularly on late season stream flows and temperatures that are concerning for ESA listed salmonids and other aquatic life. We have talked with the Methow Watershed Council and others about what we can do to improve stream flows to provide drought resilience in the face of a warming climate and these increasingly frequent drought conditions that affect everyone—farmers, irrigators, other municipalities, other water users, but certainly fish and wildlife as well.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**

Understanding that there are a variety of concerns around tributary habitat for these species of interest is important. Certainly, drought and low stream flows and high temperatures are among major concerns for ESA listed salmonids and other aquatic life. Drought as it relates to stream flow and temperature, is a major concern for some of these species in the Upper Columbia in terms of extinction risk. 2015 as an example was a particularly intense drought year that led to high temperatures even in the main stem Columbia River that led to a significant pre-spawn mortality event for migrating Okanogan Sockeye, which is not an ESA listed population, it's actually a pretty healthy population, but these drought related pre spawn mortality events suggest to some that even healthy populations are at risk of decline and perhaps extinction.

I guess, just to pick a number, I would say maybe seven. Drought is definitely a serious concern for these species of interest and in the work that I do. During low flow periods of time, particularly late summer and particularly for the stream-type salmonids meaning Spring Chinook and Steelhead juveniles that spend more than a year in freshwater environment

before immigrating out to the ocean, those critters are particularly vulnerable to temperature and low stream flows as a result of drought in the tributaries to these rivers. Already these species are ESA listed. Upper Columbia Spring Chinook is the Washington state's only endangered species of salmon. Other populations of salmon and steelhead in the state are listed as threatened, but essentially, Upper Columbia Spring chinook and Snake River Sockeye are the most imperiled species in the basin at the highest risk of extinction. Drought certainly exacerbates that and is a pretty significant consideration, which is why Colville Tribes and our partners are really focusing on doing what we can to improve habitat conditions and improve instream flows, and work with irrigators on efficiency projects and other efforts to provide drought resilience. It's a major concern, and a major effort underway to address that concern.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**

The ESA listing status relates to risk of extinction and the Upper Columbia Spring Chinook, as an example, is listed as endangered. It's the population of salmon statewide that is at the highest risk of extinction, and drought is only exacerbating that risk. There are various tools that Fish and Wildlife managers have in their toolkit, including hatchery supplementation to preserve these stocks and prevent extinction. Even some of these non-listed populations in the Upper Columbia, for example, Upper Columbia Summer Chinook, and as I mentioned Okanogan or Upper Columbia Sockeye, there's population in the Wenatchee as well, if these trends continue, related to low stream flows in an increasing temperature it is possible that some of these species could wink out. That's not acceptable for the Tribe and for many of us in the region. Extinction is not an option, so we're doing everything we can to try to provide climate resilience and proactively plan for the impacts of climate change and increasing drought frequency and intensity. We're doing what we can, but some days feel like a losing battle in the longer term. But again, because extinction is not an option, our group of various agencies and other partners involved in salmon recovery are going to continue doing what we can to address these concerns and try to proactively plan, follow the science and learn as we go, adaptively managing our efforts. A big part of that is addressing stream flows and increasing temperature associated with drought.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**

Just to pick a scenario, we're talking about the extinction of some of these populations of fish 50 years from now.  Based on my last 16 years in this role and my understanding of the trend, and both in terms of fish populations and habitat conditions, I don't know that we have extinction concerns at 20 years out. Given various climate change scenarios and the fact that as a policy, we're not really doing anything to address continued greenhouse gas emissions pollution that relates to increased drought frequency and intensity that I would say in 50 years

it is not inconceivable to me that some of these populations of salmon steelhead in the Upper Columbia could go extinct or be extirpated in specific watersheds.

The impact is a ten. There is no coming back from extinction. There are populations of salmon in the true Upper Columbia that were lost because of construction of Grand Coulee Dam, which blocked salmon passage into the true Upper Columbia. You may have heard about these June hogs, pictures of these massive Chinook that caught at Astoria big as people. These were fish that were destined for Canadian waters in the Columbia and those fish are extinct. They're never coming back. Extinction is a major concern, especially for tribes and tribal members who rely on these species of fish for not only ceremony and subsistence, but spirituality and culture. It's critically important and iconic fish for the region, but specifically for tribal people whose culture and religion have centered around salmon as one of several first foods that have nurtured tribal people since time immemorial. The prospect of losing these fish forever is incredibly concerning. Drought is a major risk factor, as I see it, in terms of longer-term impacts; we're doing what we can to address the various factors that have related to salmon decline that have been in play for150 years now, like over-harvest and development impacts of the hydro system. We're doing what we can in the tributary habitat. The real elephant in the room that we were trying to figure out how to address but don't have our arms around is climate change as it relates to increased drought intensity and frequency.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
Water right acquisition is one—acquiring water rights that that are being used for irrigation or other out of stream purposes and dedicating that water in stream. Sometimes this happens through efficiency projects working with irrigators to improve their irrigation conveyance infrastructure so they're not losing water. They're just taking the water from stream that they need to irrigate their crops. Re-timing water, whether through surface storage or managed aquifer recharge, alluvial storage of water, is a way to re-time water. The analogy is wetting the sponge in the upper watersheds to, rather than have a flashy hydrograph where you have all of the water come off at once, re-time so it slowly trickles out. That can address not only stream flow, but temperature. Those two things are really related, because a greater volume of water warms more slowly than a lower volume water in response to air temperature. Increasing stream flows through acquisition, efficiency, and then re-timing, are big actions.

Other habitat actions, including improving habitat complexity, improving channel conditions, creating pools protecting cold water refugia, where there's hyporheic surface water interchange, where these fish when water is warm can find that cold water refuge are also important efforts. It's really not only increasing stream flows which has the result of improving temperature conditions, but improving habitat conditions in tandem. Those are the things that we're finding can provide climate resilience for these species of concern, and can help, buffer the effects of increasing drought that we're seeing to the future.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**

Yes, other than I would take an expansive view of nature. There are aesthetic and recreational flows. The Methow is a pretty popular rafting river. There's a company Methow Rafting that operates out of Winthrop that does commercial guiding river trips. I'm a recreational boater and raft and kayak the Methow quite a bit myself. Including aesthetic flows, either as part of nature, as an ecosystem service that rivers and watersheds provide, or as maybe a separate category. Recreational and aesthetic concerns could either be lumped with nature or split as a separate category which is related to the valley's economy. The valley is a very special place, it's a very beautiful place, and the river ties the valley together.

We actually worked with Methow Rafting to get some folks, including local elected officials, out on the Similkameen river, to talk about the Enloe dam. I'm a strong believer, along with others who I work with in the value and meaning of getting people out to interact with the resource, because people can't necessarily feel passionate about or protect what they don't know or they don't understand or where don't have a connection Reflecting on my own experience in life, I'm passionate about those things that I've interacted with more than abstract ideas of things, and so that's something to understand when you're getting people engaged who aren't engaged. Many in our communities, including farmers and irrigators and others are engaged with these resources and do care about them. But others, newcomers to the valley, and others may not necessarily understand some of these issues, and trying to figure out a way to engage them with these resources is an important and positive development.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**

Certainly there's the zero-sum scarcity in a mentality that some have that it's farms OR fish, and that one benefits to the detriment of the other. There's that perception in some quarters. My experience has been that, in many natural resource contexts, that that's not the case. There are true win-win solutions. There are many examples of this in the Methow for irrigation efficiencies projects in which the irrigation conveyance infrastructure is improved using public funding, resulting in reduced diversions from the river or stream; irrigators are getting the water that they need and they're not wasting it, and public funds are used to improve their infrastructure so they get modern, reliable infrastructure, so that irrigators are benefiting in both ways. These old, open ditches are unreliable. They're difficult to manage. They're susceptible to things like fire and flood. They're just not great for the irrigator. They're also not great for fish and stream flows, and so by making these investments to improve irrigation infrastructure, irrigators and farmers are getting a benefit and fish are getting a benefit.

As an example, you get these open, unlined ditches. You pipe the ditch and as you pipe and pressurize the ditch. One concern that some of the community have is, well, "I like the open ditch in my backyard, and wildlife use it, and there's this riparian vegetation that's grown up around the open ditch." That riparian vegetation isn't natural; it would otherwise be shrub steppe or upland habitat, but for the fact that there's this ditch. We need to help people talk through or address those concerns and help them understand that the natural resource decision-making and management necessarily involves a series of tradeoffs. You can't necessarily just benefit one interest to the exclusion of all else.

I would say that the zero-sum scarcity mentality, where someone has this vested property interest with a water right and they think it's at risk because the fish people are coming after it can be a pretty significant concern or a barrier to solutions. Not to confuse politics too much into this but particularly given the current federal administration and the DOGE related efforts, and some targets at existing funding, like the proposal to eliminate the Pacific Coastal Salmon Recovery Fund, that money may go away. There's significant concern around hobbling or eliminating administrative agencies that we work with to try to recover these fish. Reduced or eliminated funding to make these investments in infrastructure that benefit fish and farmers and benefit the region is another risk or concern. I think that we are at risk of losing some of these win-win opportunities if we don't have funding or the agency support to implement them.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**

You probably have heard from others in this effort about out of basin transfers. There was a Seattle Times front page article about the proposed transfer of water rights out of the Chewuch River to Wall Street investors who are looking to hydrate a water bank. That issue was actually before the Okanogan County Water Conservancy board, and I was the lead for the board on that change application. There was a lot of community engagement, in part because that water rights transfer really threatened the Chewuch Canal Company that has a pretty significant water diversion on the Chewuch River. That really elevated the issue of out basin transfers and the value of water resources to the community of the valley. I guess maybe in contrast to some other watersheds in the Upper Columbia, I see the Methow as actually very engaged in conversations about water, protecting water, and working as a community to protect water, protect the rural character of the valley, finding ways to preserve and protect agriculture, which is so important economically and culturally and aesthetically for the valley. The demographic of the Methow has some pretty engaged populations and that includes being engaged in conversations about water and protecting and preserving it and all of the amenities that it provides to the community. That's actually pretty heartening to see how much engagement there is.

**How would you rate the community's current motivation to make needed changes?**

Eight, maybe. I think people are certainly engaged in conversations about protecting water resources and part of that necessarily includes thinking about creative solutions to protect this vital resource because it's important to the valley.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**

The Methow tribe is a constituent tribe of the Colville Confederacy. They lived in the valley since time immemorial, and we're working with the Methow descendants to re-engage in the valley. The Methow Conservancy, several years ago, purchased and gifted to the tribe a 320 or so acre property up the Chewuch river that we call the Hummingbird property, in order to create a physical space for Methow people to return to the valley, given that they were forcibly removed from the Methow to the Colville reservation. Slowly over time, the Methow people are re-engaging physically with the valley and its resources. I do really appreciate the acknowledgement in the community and the growing understanding of that history and the importance of welcoming back the Methow people and members of the Colville tribe to the valley. It's encouraging to see that as part of a greater and growing awareness and consciousness of what the valley is and has been since time immemorial.

# Cody Accord

Fire Chief
Okanogan County Fire District #6
May 1st, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
I'm the fire chief for Okanogan County Fire District Six, which covers from basically Gold Creek to Lost River at the upper end of the Methow. I guess our organization has to use water to put out fires, so that's pretty much the main reason we use water.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
My expertise in drought is not necessarily a lot, but it's an index that we pay attention to for wildfires. There's so many predictions out there still for the current year that we don't know where the index is going to hit come summertime. That's when we look at it, for July, August, September. Just from what people have been saying, it's been a drier than normal spring. Dirt has been drier than what they're used to when they dig into it, a little bit sooner than normal. Those are the kind of things I've been hearing anyways.

Thinking back to last year, for our location I didn't really see impacts. A lot of it is ignition source for us. Whether it was drier or not, you still have to have something to start to the fire with. We saw impacts over in Stehekin, the fire up there; if I had any observation at all, it would be that the higher elevations seemed dried out last year, possibly from a drought, to be able to have more fire.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**
I don't really have enough understanding to give you a good number.

*Maybe just generally, if it's if it's a dry year like we had last year, on a 1 to 10 scale, did you see serious impacts to your ability to do your job?*
As far as impacting my job, I mean, I can't really come up with anything different. Yeah, if things are drier, they're going to catch on fire quicker. But I didn't necessarily see anything in this community. I do travel around on a management team, so I go to Oregon and throughout parts of Washington, to go on fires throughout that zone. You can see a difference in those larger geographic locations. Oregon had a significant fire season last year; I'm assuming they had a high drought index. But I still can't put a number on it.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**
I mean, of course we're going to see drier seasons. I don't know if that is necessarily a result of the drought index or climate change, as far as seeing fires sooner in the spring, later into the fall, different things like that. I don't know. I just know that things are going to be more receptive to fire because they're drier.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**
I don't know, I mean, I'd probably put up a mid-range number. I look at the previous 20 years, and from early 2000s on this valley has seen more fire, larger fires than they did before the 2000s. So there's an indication there, possibly though I don't know what the drought index was like from in the 90s and 80s to 2000s or if that's significantly different or not. But what I've seen historically is that you see more fires and larger fires in that time frame.

We don't necessarily have issues in the ability to get water to fight fires. The only thing that was an issue there was some restrictions at one point for getting water out of rivers and streams, related to fish type of issues. I think that's resolved now, to where in any emergency situation, we're allowed to just get water and use it when we need. I haven't seen impacts as far as access: you're still going to use the major streams, you're still going to use our regular access points. You might see some ponds that dry out sooner some years and other years, but we're not necessarily going to use that water to fight a fire.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
I don't know how to address drought impact, from my job. We just draw information from the index portion of it. We are, as you know, working with the Watershed Council on trying to get more access points for firefighting water, for our type of apparatus, and different things like that.

*Maybe more broadly, what actions would you like people to be taking now to mitigate their fire risks or the risks to your team?*
There is FireWise and things like that that people can do to help protect their homes from fire, which will still help in a drought context, of course. I mean, for us, it's using water… if they could use water and keep things green, it makes our job easier. But obviously that leads to overlapping issues that have different needs.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**

Yeah, the top two would obviously be the agriculture and the community. I guess that saying community use is more appropriate than town use. Town use would be the larger concentration, but you know, you have like Edelweiss and you have different areas that are also going to have more use than a single residence.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**
Education, because I don't have a big understanding of the issues either, right?

I think, as you see natural disasters, and if they are influenced by a drought index, having that educational aspect tied into there would be something that would get more people's attention.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**
I don't know. It all just depends on how it affects us personally, right? If you're going to say, well, you're only going to be allowed to use so much water down on your property to keep you grass green, you're going to have a huge amount of people coming to you, saying "whoa, wait, wait, why? This is because of a drought?" It just depends how it personally affects you.

**How would you rate the community's current motivation to make needed changes?**
Well, right now, I probably put on the lower end, just with where we're at educational wise, and what people know and not knowing what effects it's going to have on them.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
For us, it's really about just having that access available for us as a fire district, to be able to use the water to protect communities. The drought index part of it we don't really look at it more than just another indicator of how possibly dry trees, brush, and other fuels are and how receptive they'll be to fire.

# Dylan Marks

Co-Owner
Methow Rafting
May 6th, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
I'm Dylan marks, and I am the owner of Methow Rafting. I have been the owner of Methow Rafting, along with co-Owner Brandon (Bertelsen), who doesn't live in the valley, since 2019. There's been a company in the Valley for a while, a couple decades, at least. We run river trips, guided rafting, kayaking, and we also have tubing and do rentals primarily on the Methow River. We run late April or early May through Labor Day weekend, and Methow River is our main or pretty much our only river that we run. We really rely on a good water year for a good season; it's very directly correlated.

We're 100% dependent on water. We've started to think about how to have a little bit of income that's not really dependent on water, for sure. Every year is different, but I think that's something that probably longer term, meaning even just in the next few years, we've started thinking about.  We have these big busses, so we've been doing shuttles and stuff like that. Some seasons it's a really low water year, and yes, that's difficult. We've also started to try to really emphasize and advertise towards earlier trips, like May and June. Trying to sell earlier trips even hasn't really worked a ton yet, but we've definitely seen that it has worked. Customers that have come here in August have come back and gone on a trip in May and have told us that they came back for a trip in May because we told them to the previous year, so it has worked. I think it will continue to work slowly, but there are a lot of people who come here in July and August, who that's just their season to come here, and it doesn't make sense for them to come here in early May, necessarily. I understand that too.

We've tried to advertise and open up the season earlier, and are trying to get people on the on the river when we know there'll be enough water and when we know they'll be no smoke too. That's another big one. I think since 2019 we've definitely had a big increase in May trips, probably in part to do with our efforts, and partly I also think that people are maybe a little bit more aware than we give them credit for in terms of water level.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
We have a couple trips that we do, the guided raft trips. The Black Canyon raft trip is probably our primary trip that we run, and we have to stop running that at a certain water level, just because it gets too low, too shallow, and also just takes too long. Historically, in good years,

we've gone all the way into, like mid-August, and I think the earliest we've stopped running those Black Canyon trips is the 18th of July. That's a huge range. I think this year, if I were to make any predictions, it'll probably be more towards the 18th of July side of things.

We've adapted and been able to do some shorter float trips, and able to run that to really, really low, but it's very much a float/swim trip, it's not really white water. We don't really advertise a big white water rafting experience for that, we advertise it as a splashy, family fun trip, or, not exactly that, but that's the general idea. Having to end raft trips early in general is a big one. I think it can still be a very good quality trip, those low water trips for guests, because they're over here and on vacation, and whether they're from Seattle or somewhere else out of the valley, they just want a good day on the water. It's still a very good quality trip, those low water trips but it's tough on guides to be up here running trips at 400 or 350 CFS each day and it just leads to burnout. It's tough for people to work well into August, running the river at like, 350 CFS, which is somewhere around the lowest it gets down Valley. And so that's a big one too, to continue to have buy in from guides and make it a good work environment as well.

Another one is tubing. We could run tubing all the way down to really low water levels, but the low average of what we see for river flows is really hard on our tubes too. It's easy to see once it gets below a certain water level, every day we have to patch tubes. With medium and even less than medium flows it's great, there are no tubes getting damaged, but then once it gets to that lowest level, which usually happens like the last week of August/the first week of September, then we're just patching tubes. And it's like, "oh, man, is this even worth it?" Those low flows we've seen for tubing, we've seen happen, as you probably can guess, earlier and earlier, and it's just really tough on our equipment. Also, people come here and really low water and just don't want to go rafting, which makes sense. I think there was one season, it might have been 2021, but one of those seasons there was just an epic water year. We had tubing. We had Black Canyon raft trips through mid-August. If we had those seasons all the time Methow Rafting would be so much more reliable of a business to have. I think water level and smoke are the two main factors that lead to this being a less reliable source of income.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**

It's probably a little bit more complicated of an answer. I'd say, like, if we didn't put efforts into diversifying our trips or advertising, or switching around low water trips I'd say like eight or nine. But given the fact that we can maybe find some different sources of income for the shuttles, or create trips that cater to low water, like, bringing masks and snorkels, for example, on those low water trips, to swim around in the pools and look at fish, so creating new experiences that are directly related to having less water… given that, I'd say it's probably more like a six or seven. But if we just operated like we wanted to in 2019, yeah, it would probably be like eight.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**
I think that we will have to end those whitewater trips earlier. I think that we would put a lot more effort into spring trips, I think that we would advertise the whitewater season in May and June. I think we also do more outreach to try to get more school groups or youth groups or business trips or things like that, to fill in like May and maybe focus a little bit less on the July, August, summer tourism. I mean, we would probably still try to do those float trips, but I think our whitewater season would just end earlier, and I think it's just going to be more difficult. There's no way around it.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**
There is only going to be more impact. I think it's probably pretty similar. Until there is like zero water in the river, I think we'll be able to do something. If we continue diversifying our trips and adapting them to provide good experiences on low water, which I think we totally can, I think it's just going to continue to be like an eight or nine. I mean, there's so much to do out there in low water, so I'm not completely at a loss or feeling like it's catastrophic. It's more just changing the idea of what July and August looks like.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
I'm very far from any sort of expert, but I feel like just managing water use especially in the upper reaches of the valley, and just in general managing water use in the Methow River is probably a big one.

Even things like what you're doing here, funding to be able to do these interviews, which hopefully helps increase awareness. There are a lot of people who are directly affected by it, who are very aware of it, and it's on the forefront of people's minds, like myself. Then there are a lot of people who are indirectly aware, but like any tourist in here, that it's not on the forefront of their minds right now, in terms of how it affects their business and life. I'm sure they're very indirectly affected by it, and they'll be especially in the future, so I think more conversations and awareness is going to be an impact.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**
Yeah, I think so. Would the towns kind of encompass recreation? I guess that could be my interpretation, that towns encompass recreation. I think this river is fairly undeveloped when it comes to recreation, and I think that it's an awesome river to recreate on. In this area, the mountains, the hikes, the climbing, even the mountain biking is picking up. There are just so

many ways to recreate in this valley. I think the river is the one that there is a lot less focus on, but it's a wonderful resource. It's an underutilized resource to recreate on, in part because there's not a ton of access, or it's unclear. I would have a feeling that as time goes on, it's going to be more sought after, and I wouldn't be surprised if there's more demand to recreate on the river. I think that might all just fall into the towns use category?

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**

It feels like an issue that's tough to know what to do about it as an individual. Outside of the line of work we're in, how do we make an impact? There are a lot of other things that are also challenging about living here in general, in a the small town with housing issues and jobs, there's just so many things that are important issues to tackle. You can probably say this about any sort of environmental issue in general—sometimes it's tough to see an issue unless it's really slapping you in the face. I'm sure it already is for the fish populations, but for recreation and stuff, there's an argument that it's probably not there yet. It's hard when there are so many other things to also focus on. It's probably also hard to get buy in from people to say "the salmon populations are really struggling" but how do we convince those people that's the case, and why would they care? It's probably a challenge to get buy in from people about these issues who aren't fishermen, who aren't who don't recreate on the river, who aren't connected to the river or people who are outside of this valley who love to come here and visit but don't live

I think building awareness is something that Methow Rafting could maybe help with. In the last few years especially, we've got more and more locals out in the river. That certainly helps us as a business too, but looking at it from a different perspective once you get to experience the river and the outdoors in general, and be in the watershed it makes a difference in the amount that you care about it. If we just went out on a great raft trip with a local group or a family and they had a great time, and then we talked about some of these issues to them, it might have a little bit more of an impact, because they just had the greatest time the previous day. I guess what I'm saying is, there is opportunity in figuring out how to foster a little bit more of a connection between these issues and peoples emotional connection with the river.

I'm proud of, to some extent, trying to get local businesses and people out there as much as we can by doing friends trips, friends of friends, low cost local business trips. We've done a lot of those with like, OSB, very much at cost, just to pay the guides. There are a lot of other benefits, right? Promotion and giving our guides work, of course, but at the same time, one of the drives is just to have people experience the river and get people out who otherwise wouldn't necessarily. I think that's something that could be a little more of a driving force, trying to get locals out or local businesses, just emphasize the importance of this river, keeping it as natural as we can, and emphasize the importance of what it provides to us in the

valley. Having a little bit more of a strategy to spread that message to people, especially locals, intentionally, could be an opportunity.

Our guides share lots of information about the surrounding area and ecology and have some info on the fish, but I think that having a few more resources (on drought) in our back pocket would be great. It reminds me of the Similkameen River trip that we did a couple years ago. They've been talking about removing the Enloe dam because it hasn't been useful in like 60 years or something, it's been sitting there, and it's a terrible fish wall. The dam is blocking fish from getting to where they'd historically spawn and it's a very significant site for indigenous tribes, Native Americans who live in the area. Through the Methow Citizens Council we did this trip and started above the dam and floated down and then floated a couple miles into the flat water that the dam was backing up, with a smorgasbord of stakeholders and interested parties, and a couple like native elders.

There was like a congressman from Spokane, there was the mayor of Oroville, a couple of fish biologists were there, and we all came together and did this little river trip and talked about the importance of the river and how the dam is affecting the salmon. What would it take to be removed? It was super cool. There were 10 or 12 of us, or maybe more. For people who are making these big decisions about the area, I think this was nearly everybody's first time on the river on that section. It was people's first time really out there experiencing that little section, and to be able to jump in the water, to see the beauty, to be able to talk about it, to be able to see you transitioning from a free flowing beautiful river and calm, clear pools to swim in, to getting into this stagnant reservoir that is being backed up with a dam and then having to work hard and paddle across this thing that doesn't have any flow. It really brings it home.

I think that trip was a highlight for people. And that is an example of what it can do to just get people out there and really get their hands dirty; to see it, to jump in the water, to feel it. And I think that really like hits can help hit points home for people too. I think the more we can close that gap between these issues through fun and play it really has an impact on people. Yes we had a lot of discussions and went over a lot of points. But I think to also be able to be truly playful really helps bring those two things together, kind of hits something in people that makes them pay attention and care.  I think one thing Methow Rafting could help with.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**

This valley is lucky to have a lot of organizations and nonprofits who either directly put their efforts into climate change within the valley, and also those that are indirectly involved, like Methow Trails, for example. In terms of just residents, I'm not sure.

**How would you rate the community's current motivation to make needed changes?**
I think maybe three. Maybe that three that I said is a little bit higher, maybe I'm little too pessimistic, because I know there's just so many organizations, and so many people who volunteer and put their time into great organizations within the valley that are either, like, directly concerned about climate change or indirectly, like Methow Recycles. Maybe I'm being a little too disgruntled about people in general, because I think this valley probably does a much better job than average

I can imagine it's probably hard for people to find a balance of where to focus their energy for a good cause with all the other things that need support in this valley. There are things that people are concerned about or very directly being affected by today, tomorrow, next week, and I can see it being a challenge to really get people to put these issues in the forefront of their minds in some ways.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
In general, there are so many ways to recreate on this river. In the next five years, I think that we'll be able to continue to provide people with great experiences on the on the river, despite water levels. I think it's probably smoke is a bigger factor in some ways, because we just can't operate if it's smoky, but if it stays clear, and if it's really low water, we can still get people out there. There's still a lot of things to do on the river, and a lot of ways to recreate and so, I do feel thankful for that. These lower water levels have been a forefront of my mind for a while, and I'm definitely interested as an individual and also as a company to put thought and resources into actions, and to take steps to mitigate these changes and preserve our watershed and keep current flows as close to historical flows as possible. That's much on my mind, and it's so directly correlated with the quality of trips and the success of Methow Rafting in general.

# Jacob Gates

Superintendent
Winthrop Public Works
May 8th, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
I'm the superintendent of Winthrop so public works. I manage all of the water systems and wastewater systems. I am working with the Canal Company right now to access 186 acre feet of water from Pearrygin.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
It's not impacting our water system right now, not directly, no. People here are actually really good at being cautious and not keeping green lawns etc. I appreciate that a lot. We've had a few times where we've run out of water, but it's not to do with drought or anything, it has to do with our system. We have really good water here, which is super nice. We're one of the few places that don't treat the water at all. As for drought affecting our actual water system in town, it hasn't done that yet. I'm fully aware that it's there and it's a big deal, but it hasn't yet done anything, and we haven't taken steps yet to make that more of a priority in town, to get people to know about it more. We do have a pretty thoughtful community here, though.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**
I would say like three or four, maybe.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**
I would worry about late summer impacts, because our water is directly connected to this river, and every year it gets a little lower in the fall. My biggest worry is if we can't fill our reservoir on the east side (Pearrygin), which is our fire system back up that feeds our hydrants. If we can't maintain something like that if our water levels are too low and if our wells pumping too little water, that worries me in the future.

We're worried about late summer supply and availability. Generally, with the system right now, we have plenty in the spring. But the Methow almost went dry up on the top end last year, and that's our water level. That is directly in with our aquifer, and that worries me in the future.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**
I would say like seven or eight, because currently we only have one well and if that happens to be the spot we're low on water, we're out of luck.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
I think our biggest action for this town is just to make people more aware. I don't think we can do much more right now. I guess one other action I'm doing right now is trying to limit our water loss. Before I came here, we were at 48% loss from how much we're pulling to how much we're metering, which is massive. At least in Winthrop the water drainage is amazing, so if we're losing water into the ground, it's going right back into an aquifer. But that amount of loss is not good no matter what; that's a huge amount of water. So right now I'm focused on our is leak detection system, fixing as many leaks as I can afford every year. And then public knowledge is the other big one.

The project with the Canal is to get additional water. Last year we ran out of hookups; the EPA gives a certain number of hookups for each town, and we ran out. We put in a request, and we got 280ish more hookups – that's not exact. Since we have two wells, one is inoperable and one is running. The Pearrygin connection will give us 186 acre feet that we can take out of the third well on this side of the river. That's important because presently we only have water service from the other side of the river, so if that well goes bad, or if a main line breaks on the bridge, we don't have water for anything on this side. That's our only service. So we want to put a third well on this side for backup in case we do run short on water on our first one.

*Do you all make any charges based on the amount of water used?*
Yes, people get 8000 gallons on the general water/sewer fee, and then if you go over that, you get charged overage. Our billing is so low, our billing needs to go up. I mean, it affects people, but really, the people that are getting overages… for example I get overages because I have a garden, or because I have a bunch of trees I have to water, which is understandable, but it's not enough of a fee that would really affects anything. It's not enough for people to notice. Some people do, obviously, but it's not significant.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**
Yeah, that's great. That's what we have - three main users.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**
We have a poor communication system in the valley that makes it hard to get to everyone. Rumors pass here, but we don't have a big, large communication system to get the word out. As for agriculture, I mean, those people need to use all that water. This is also a town that has a lot of people that have been here for 70 years that you can't tell them what to do no matter what you do. If I tell certain people in this valley what to do, they will do the opposite just because they don't want to listen to people.

For opportunities, I think we could find some. We're developing the red barn to be more of a community use space, and think that's a place where we can start building events for stuff like drought awareness. I'd be excited to do more community planning for that. Really, on my end or on Town's end, we aren't taking action right now because our staff is just three people, two other people and me that run everything. I could work 20 hours a day and still not get my to-do list done. Capacity is also a challenge. Our biggest thing in this town is we're super shorthanded, and we don't have the funding, or any way of getting more people. We just can't afford it. It's fine, it's a great place to work in a great town, but there is a reality to take this job. You have to know that you're the fire marshal, the building official and the superintendent, all in one.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**
I think our newer community is really motivated, our younger community here, like me, I came from another place, and a lot of the people in town are the younger, not even younger but newer aspect of Winthrop and the surrounding area, especially in the Methow Valley, I think people here would be really susceptible to changing and working on it. I think we could actually develop community groups to help spread awareness. I really appreciate this valley for stuff like that.

**How would you rate the community's current motivation to make needed changes?**
I really I want to say five, because you have to average out the whole spectrum.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
I think this is a great town. We can work on these issues, for sure. We just need to develop more of a community outreach program to let people know what we're dealing with. Even, I mean, our town hall lawn is green, and it's like, well maybe we should not have a green lawn and can set a different example. We should do something else, but that's not my choice. It's stuff like that – it's a hard thing to change.

# James DeSalvo

Executive Director
Methow Trails
April 29th, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
My name is James DeSalvo. I'm the Executive Director of Methow Trails. Our connection with the water resources of the valley is that we operate a trail network that's over 120 miles of year-round trails. They go near resources in the watershed, and then we manage essentially the snow on top of the trail network that feeds into the watershed. There's a lot of careful management on our part of moisture, primarily in the winter, in regards to how it connects with our product, the ski trails. We're conscious of how we operate in and around the rivers. We have some seasonal bridges, we have year-round bridges, but the seasonal bridges we pull in and out and we work with the Department of Fish and Wildlife and other agencies to make sure that we're doing that in the way that works. Our bridges interface with the waterways quite a bit, so we don't use any treated lumber over the waterways. That's a very specific example of a detail on how we manage around the water.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
I think more on a personal level, we have a well at our house that's a really low flow, deep well. It's over 500 feet deep. I think the more wells that are drilled, and the more water use and increase in population around here, the more wells are going dry. Steve Bondi had his well go dry a few years ago out by Big Valley, and had to redrill. It just seems like the capacity isn't necessarily meeting everyone's needs. There are more expensive measures that people are putting in place to make it and so for us personally, we just manage it really tightly. For our family, it's like, okay, we're not going to have baths in the summertime and we're not going to water outside. Our grass spot has gotten smaller and smaller and might even disappear this year, little things like that, that affect just you.

I think professionally, being in the ski industry, we've thought and considered the idea of snow making, but it's always been conscious of the water resource around here, how that would be perceived, how realistic that actually is, and what the capacity is. I know other ski areas have basins that they set up, and storage. I don't think it would sell well with the general public and population here and I just don't think it's the right thing to do, water resource wise.

As a parcel owner, for our nonprofit business, we own 18 acres here, and we have a well, we have town water, and we have ditch water. It's been fascinating to see how we manage those

three things in concert with one another. The ditch seems like an ever-endless flow of water, once the ditch is on, and the more you use it, the better, even if you don't really need it, which is so weird to have that juxtaposed next to our low flow family well at our house.

Depending on the source and the culture around water use, it's fascinating to me that there is such a spectrum, right? We have this almost seemingly endless water resource that we're being told we should use as much as possible to just water a field, and then in the winter time, if there's some way we could bottle that up and store that and then produce it, you know, that would be really advantageous for us in the local economy. But it's just not in the culture to use water in that way. But it is in the culture to use water to irrigate. So that's fascinating.

And then, the Methow Trails well is not on our property, but we have an easement to access it; it's down this hill and on someone else's property. It was set up years ago, before 1963, and we spoke with an attorney about, you know, what's the value of it, how do we register it with the Department of Ecology, and what's the history of it. We don't really pay for the well, and we do pay for a little bit for the ditch as well. So again, it's just that whole equation of those three water sources in this property, and how we balance them and where we use different resources. I could talk for a long time on how that's evolved my thinking on the valley's water situation, because you're hitting all three main types of use.

For us, the well is just kind of this a little bit of an emergency water source if the Town's water ever went down. But I think eventually we're going to just scrap it, get rid of it, give it away. But it's worth something, right? And it's valuable. In the initial sort of annexation of this property, it was a county parcel that was a donut, surrounded by Town of Winthrop property, and we got annexed into the town of Winthrop because water was easier to get permitting for all the uses that we wanted to have. This well was never going to cut it. The irrigation ditch was never going to cut it either for the type of business that we want to operate out of here, and the recreational amenity that we want to have here. We needed to go for a third water source, which was the Town, and to get that, we had to get the property annexed from the county into the town. I don't know all the details, but it's just simpler to get water.

Really, a lot of our decisions around this property and our headquarters are based on water availability, how tricky and hard it was with different jurisdictions or municipalities, and it continues to evolve in that way too. We're limited in the annexation agreement with the Town to three units, or whatever the measurement is. I'm probably not saying that correctly, but three hookups, basically, is what we could have for these 18 acres. If we didn't buy this parcel, I think some developer would probably have come in and tried to get more. We're using one of those right now on a very limited basis, but we're well aware that the limit to our development of this property is largely connected to the water resource, even though we've got a pretty diverse way to access it.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**
It all depends on where and who you are. Like, at my house, it's, it's pretty high. I think it's like eight, nine, because at some point, our well might go dry and then we're spending 10's to 1,000s of dollars to try to get an alternative that may or may not work. So then we'd be shuttling water into our cistern, which makes it seem like we shouldn't live there anymore, right? If there's not water there, then we don't live here, then we're not working here. And if we're not working here, then we're not, you know, going to school and doing all the things that we love to do; we're not living here basically. So the impact seems really high, personally.

On the other hand, on this Methow Trails property, it seems really low, right? It seems more like a two or three as like a business owner nonprofit, just because we're resource water rich just because of our situation.

*Interviewer: for the winter trails, have you seen impacts of drought, specifically, or not really, yet and it's more just about managing variability?*
For the trails, we manage it so tightly. It's connected to El Nino and La Nina seasons and climate change, and so we're acutely aware of how much moisture comes in each year and what the temperature is when it comes in, because that's what enables the recreational amenities in the valley really to happen. I would say the impact is up there. It's probably eight or so, just because our life in this valley is so short in the grand scheme of things. I've been here for 26 years, a very short window of time in the grand scheme of things, but in that short window, maybe it's because my responsibilities are increasing, but I'm more stressed about water on a professional business/trails end of things each and every year that goes by. Anecdotally, it just seems like we're getting less, and I don't know if that's really true.

Amy Snover did some climate work, and depending on where you are in the valley we're definitely supposed to get less volume of snow in the wintertime, and then there are varying degrees on the model of whether we're going to get more or less moisture coming in, but the timing of that moisture and the capture of that moisture are more problematic for agriculture and for recreation. That's the predictions in the next, you know, 10, 20, 50, 80, 90 years. So that's stressful. For a nonprofit that's been around for 49 years, we hope to be around for another 49 plus, however many we can get. One of our chief strategic priorities is to is to address climate change, and it's one of five major priorities for us that we have had on our target and on our list. It's on the wall over there, and it includes the management of that water resource, very heavily, related to climate.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**
If this pattern continues, I think it's a worst-case scenario. It's a shortened season, right? A short ski season. These are old numbers, but $12.4 million annually comes into the valley

because of the system of trails that's here. That's not just winter trails, but a big chunk of that is winter trails. If we have a shortened season, that pot of money just for the valley and the residents and for everything to work just shrinks. For every dollar that someone spends on a ski pass, twenty more additional dollars is spent somewhere in the community. So if our season is shortened even by a week or two, the return on investment that recreation has is significant, and it ripples, and it's multiplied. If our season is cut short because of the water resource issue, it's hugely impactful.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**
I'd say nine.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
We're looking a lot at water capture in the wintertime. This is really specific to ski trails, but we're looking at elevation, where the trails are located, ideally they can get higher; we're looking at canopy, snow intercept on trees, making sure that we have an open sky to receive the snow? We can capture snow and ice longer if it hits the trail and stays on the trail, instead of hitting the trees and then melting. In our trail construction and reconstruction, we've looked at north aspect, shady sections of the valley, cooler areas. Cub Creek is one of the coldest places in the trail system in the wintertime, significantly so, and we're investing a lot in a new trail head up there. The rendezvous huts are awesome, and that whole section of trail system, but for us, it's a climate resilience strategy to invest more in our higher elevation trails.

Then with construction of trails, we're looking at shady north-aspect areas. The best example of that is probably the new Devin ranch trail. It's on a fire break on the north side of Sandy Butte. We've just got authorization from the forest service to add on USFS property 2000 feet, but in total it's three miles of trail that's basically doesn't receive sun at all in the wintertime. Operating on areas that have that resource longer is a good strategy. Specifically on the trail construction there's even the camber of the trail, if it is just tilted slightly, a degree or two away from that South aspect that can make a difference. Not tilting it towards the sun, tilting it towards the North and the shade, just by a degree or two, will retain the snow on that trail quite a bit longer. I think about all these things in managing that water resource, and essentially, we want to capture it for a longer amount of time in the winter, so that it's on the trails for our business. But also, I think it's probably good, in some small ways, for how the water gets released back into the system.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**

I think by volume that's probably right. When you say towns, I think that just includes the volume of people that live here, whether they're in a town or unincorporated Okanagan County. It's not just towns. I think it's beyond that.

You also have to consider the value, not just the volume of water. The value of the water that falls on the trails is immense for this valley and the related businesses. I think that that seems like a bit of a missing piece, talking about value of the water resource and where it is geographically. It's not just Methow Trails, too. There's the Loup, there's snowmobiling, all winter sports, essentially… Heli guides, mountain guides, ski guides. The ice rink is a little bit different, but as far as volume goes, the value per square inch of water resource, you're making more money on that 200 by 85 foot sheet of ice than you are on anything else in the valley. The rink is probably the most valuable valley water, as far as transferring into economic dollars, per square inch, than any other use.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**

I think the cultural customs around water use. It's a little frustrating to see the volume of water that gets used even by us coming from the ditch, when you're like "that could be used better," but it's just how it's been done for decades. There are different cultural judgments on water use that I think of, and if you could wipe all that aside and say, "how could we best use that ditch water?" I think it'd be used and managed a lot differently, right? I'm not saying that the agricultural uses are bad, it's just a lot of volume. This used to be a dairy farm, and I think that's ultimately why we had a connection to our irrigation here, but it's not a farm anymore; we're growing grass… and then we got to cut it…and then it's a fire hazard, and so on. The value system around use it or lose it and water rights on ditch areas is mind boggling.

There is a whole recreation piece on ditches as well; it's more efficient to cover that ditch, and then it could be a recreational amenity. You could ski or bike or do whatever on top of that; these ditches tend to be like what Rails to Trails is on the west side of the mountains, where it's a built in trail network and activity piece. If people had a different sort of ethic and custom around that corridor and that water use and how to be efficient with it, there could be secondary benefits to the whole community.

That's where my mind goes first: ditch water, agricultural uses, and seeing how historical use, for better or worse, is not allowing us to think creatively about that resource. Permitting-wise, you're grandfathered in so this grandfathered in use of the well and the irrigation ditch on this property has forced us to use water in an inefficient way, in my opinion, or in a way that could have more benefit if there's just a little bit more flexibility to that. As the landowner here, and the representative of the organization that owns this land, I don't want to lose that right to what water we have, that grandfathered use. But I'm also part of the problem if I'm not willing to change how I view that resource.

For opportunities, I think if there was an example community that does it right somewhere else in the world, or manages their water in an innovative way, I think that would be fascinating to learn about. I think the Methow prides itself on doing things differently, and doing it right, and doing it innovatively. There is a lot of resistance to change here, just because of the population that we have, and once you get your little corner, everyone's like, "okay, got it, everyone else go away". But more than that, there is this feeling here that we want to manage things the best possible way; so if there was an example from Mongolia, or, I don't know, Africa, on how to manage irrigation more efficiently, I think that has potential there for sure. Guest speakers who come worldwide, experts who could come and just share like "you guys are sitting on this opportunity to do X, Y and Z, and if we had what you have, this is what we would do, or we do, and this is what we've done."

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**
Again, it so depends on who you're talking to, and what they currently have. But I think there is room to motivate people, and I think as the problem becomes worse for more people I think there's going to be more motivation.

**How would you rate the community's current motivation to make needed changes?**
I'd say, six, seven, somewhere in there.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
We just want to be a partner. I mean, we want to be that innovative partner, and our organization is willing to be creative and give up some of the things that we have so that that it's better for more people and better managed for everyone. We're excited to be a part of conversations moving forward.

# Jennifer and Bill Duguay

Lower Valley residents
Former MVSD, current Methow River Wildfire
June 3rd, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
(*Jennifer)* We were both teachers. I taught in the Methow, and Bill taught in Chelan. I grew up here. We moved here when I was four, and I lived up Poorman Creek. When I grew up, we were always running out of water. We had an artesian well and a bunch of families shared it, so there was always a concern with not having enough water. My mom and dad in the summer still have a little tub and they wash their dishes and then use that water to water the plants. We have a lot of water here, on this property, so we really don't have to think too much about using our sprinklers and stuff like that.

(*Bill)* For the last 21 or 22 years, we've also had a wildland fire business, which is drought related and water related.

*(Jennifer)* We have 11 brush trucks. That's kind of why we quit teaching, because that business got really big. We own the trucks and we hire the people, and then we contract through the government. We probably have 45 employees, but it just depends on the fire season. They have other jobs too, but I think last year some pay periods we wrote ~44 checks. We have a lot of seasonal people that work for us.

*(Bill)* Now it's become a real serious income potential for firefighters that don't do a lot of other stuff. They might do construction, or they might work restaurants, or they rely on unemployment in the winter, or they do firewood. They do like the variety of things that a lot of people here in the valley do. These are not just people from the valley; hardly anybody from the valley works for us. They're from Bridgeport, Spokane, Okanagan Valley. They're from all over the place. Most of them probably haven't gone to a lot of college or post-secondary. The government has given big raises for firefighters over the last two years. Last year was a 60% raise from $16 an hour to $26 something an hour. Big. And so we raise our bids and pass it on to the firefighters. Some of our firefighters, in just a couple months last year made $50,000 to $60,000.

*(Jennifer)* Our kids fought fire for us, starting when they were 18, and paid for college. It's a weird thing, because it's lucrative when there is a good fire year, or lots of fires, which is a bad fire year for most people.

*(Bill) S*ome things I was thinking about sharing about with and global warming is that 20 to 30 years ago, all the ridges around here were green, and with fires it was like every now and then you'd see a place that had burned a ridge or mountain remotely. It seems like now almost everywhere you go, you can see a ridge that burned like in 2001, 2016, 2014 you can see all these places. Of course, Carlton Complex was the big one, but there are other ones everywhere you go in North Central Washington. I think there's been a lot more fire in the last 20 years, since we started, particularly since about 2000. Carlton Complex time was about mid-2000s.

*(Jennifer)* I remember growing up, it was like once in a while there was a fire, but now it's like, everybody evacuates, every year –there are fires all the time.

*(Bill)* When we started out the business in the mid-2000s people would say things like, "oh, you got in the right business, with global warming." And I was like, how is that going to help us in the next 20 years? Global Warming is a long-term thing, I'm not going to be fighting fire 50 years from now, when finally affects us. But I honestly think that about 10 years after we started, I started thinking global warming is actually our business. There are more big fires at the same time, and every year there are big fires somewhere, big meaning like 50-100,000 acre whereas before, you didn't have that many big fires.

**What do about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**

*(Bill)* Climate change impacts like we just talked about kind of answers it. There is a lot of fear with people because of the few times that big fires have run through, and there has been more focus and emphasis on fire prevention or protection. I mean I even started reading that in the Seattle Times the other day; you never used to hear fire talk or fire prevention or anything on the west side. I hadn't been on a fire in Western Washington since I started doing this in the late 90s until 2015. That was the first time that I personally, and any of our equipment, went to Western Washington, and since then, we've gone quite a bit. We went a bunch in '23, a bunch in '22; it's just becoming more normal to get over the west side.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**

*(Bill)* Maybe a seven or eight, not the highest, but not middle. It's not necessarily in a terrible way. It's just changing things—changing our business, changing how it affects people. What do you think, Jennifer?

*(Jennifer)* I'd say probably seven or eight? It's mostly fire. Thinking about my mom and dad up Poorman Creek, there's always some threat of fire because it is so dry.

*(Bill)* One thing that I've noticed is that we've lost a few trees. Partly it's neglect; we had an irrigation issue last year so I didn't water as well down this way, and we lost some cherry trees.

I think other years, if we lost irrigation, they might have survived because there might have been enough groundwater and enough spring rains.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**
*(Jennifer)* More fires.

*(Bill)* Instead of every few years having big fire seasons, I think it's going to be almost every year that we're going to have serious fire seasons. I say almost because there are definite El Nino, La Nina patterns that even though we're in a drought and we're getting drier and the temperatures are in general going up, the Pacific Northwest and the West Coast could be affected and have a cool spring, damp spring, cool summer, low fire season. That doesn't mean that there's not global warming. Things go up and down but the definite trend is up. I think we can count on regular fire seasons more than we could before.

As far as here on our property, on our river and all that, we might not notice big changes, like, "oh man, the river is kind of low this summer," and not really realize that it's part of a trend that has been low more than it's than it's been normal. I don't know if we would notice that.

*(Jennifer)* Probably not. We like to float the river a lot. We might have to stop earlier, not be able to go into September.

*(Bill)* This year it peaked early in May, and usually it peaks right about Memorial Day weekend with high water. The high water already happened. When it got hot last week, when it was forecast to be 90, it didn't really come up anymore. I couldn't predict that; I wondered, but I didn't come right out and say "it's not going to come up again." So it's already peaked, even though we haven't had 90 degree weather yet.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**
*(Jennifer)* It's like nine or something.

*(Bill)* I'd still say somewhere north of seven, seven or eight, for now and then the future is probably going to be more.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
*(Jennifer)* Our son has just bought a house, and I would say he needs to get some kind of water storage, like cistern or something. That kind of stuff, where we don't rely on just one water source.

*(Bill)* I don't know if people in the Methow Valley know what the situation is. People seem to think there's enough water to water big yards and keep stuff green, and then they say, “well, it's fire prevention,” but also it uses a lot of water.

*(Jennifer)* It's a fine balance. I think a lot of people are getting better at FireWise, clearing out debris. I think a lot of those newer homes, they're putting in FireWise, drought resistant plants.

*(Bill)* But they're still building up in the fire zones, in Pine Forest, Edelweiss, some of those places. We don't really want to change farming practices too much, because I think the farms are important to have, and we're lucky we have so much open farmland in the valley.

*(Jennifer)* Our kids run BCS and the Food Shed. That agriculture piece is important to have.

**The Methow Watershed Council currently assumes the valley’s main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**
*(Jennifer*) I think so, I can’t think of anything else.

*(Bill)* They just keep building and letting people put wells in. I don't know if that's measured, or if that's changing things. Of course, they're building in town too. If you look at the population of the towns and the population of the valley, more people live out everywhere beyond town, so I wonder about that. I also wonder about an individual who lives on five acres what their water consumption, especially in the summer, is, compared to somebody who lives on a lot in town, or compared somebody who lives on 20 acres off the valley floor, how much they're irrigating.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**
*(Jennifer)* Making people take it seriously, showing them it’s an issue.

*(Bill)* Also selfishness. People will say “yeah, that sounds reasonable,” and then just not doing anything about it, because you do what you've always been doing.

*(Jennifer)* Everyone likes their trees, like us, we have all these trees. Selfishly, I don't want to sacrifice anything. It's also so hard because there are so many nonprofits in the Methow. I'm on the board of the Public School Funding Alliance. We're always talking about how the people that volunteer and donate are overtaxed.

*(Bill)* And I think there is a lot of information out there in the valley, because organizations we have as far as water and fire prevention and the MVCC, so we have a lot of information compared to other communities. Also, I think it's kind of challenging broadly in our society now, because of politics. There are a lot of politics that are like "no, we don't have to conserve, no, we don't have to be careful, no, that science isn't right." Denial. I don't think you see or hear that too much in the Methow with most people.

*(Jennifer)* The people we surround ourselves with are likeminded, but I'm sure there are people out there that would say "there's no problem with the water."

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**
*(Bill)* I think the wealthier you are, the more motivated you are to do something. Like in your construction, you have a property, and you do construction and you can spend money for mitigation—different types of irrigation, different types of planting, different home designs. But for the average person, and people that already established, I'm not sure.

*(Jennifer)* Like I was just saying, I think probably most of the people that we associate with are pretty motivated, but then I think there is a big chunk of people that are not motivated at all.

*(Bill)* Income might play a part of that. There are people that spend more money because it's the right thing to do, or they believe it, or they think it'll help, but it takes an investment.

**How would you rate the community's current motivation to make needed changes?**
*(Jennifer)* I would put it somewhere in the middle, because there are also a lot of people who aren't motivated. I would say five.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
*(Jennifer)* Not really. It's obvious it's getting drier.

*(Bill)* We didn't talk about fish very much. The salmon and the tribes might help with at least the flow of the river, because there are restrictions when you get minimum flows, maybe that helps. Maybe that's kind of a mitigator for the river anyway.

# Kirk Lohman

Board Member and Water System/Permitting Manager
Lost River Airport Association
May 1st, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
My wife and I bought a place here about 10 years ago. I worked with USGS for a while, National Park Service for a while, and I was a professor at the University of Idaho, where I taught stream ecology courses. I always worked with water, and I got involved with it here once I retired. We've been here full time for most of the 10 years, and so I've gotten more involved with the Lost River homeowners association.

We have a unique situation in Lost River. We have two water rights: a senior right and a junior right. One of them is very large. One of them is very small. The junior right is interruptible, which is the large one, of course. I've been spending quite a bit of time trying to make sure those water rights are secure. There have been odd things that have gone on in Lost River over the years; we had two water certificates, and one of them was changed back around 2000, 2001 from a certificate to a permit. I still don't know exactly why, but anyway, that's the one that's not interruptible, and while that one is not large, it's critical to us during summer and low flow years because that permit is senior to the in-stream flow regulations. We can continue to take water, even when the Methow River drops. Our wells out there are closely connected to the river, so even though we're taking groundwater, we are affected by the in-stream flow regulations.

I work closely with trying to develop plans for water conservation so we don't exceed our limits. We made some changes a year ago, after considerable thought and discussion: in the past you paid $300 generally, that amount changed a little bit from year to year, but generally, it costs you about $300 a year to take as much water as you wanted if you're a homeowner. We have about 200 connections and Lost River. Most of those are part timers. There are probably 25 households that are full time. But anyway, for $300 you could take as much water as you wanted. So some people have grass lawns, some of them have planted trees, some of them have watered to their hearts content. We decided we couldn't do that anymore. Starting at the beginning of last summer, we implemented a change where if you went over 2000 cubic feet in a month, then you paid a nickel for every cubic foot that you went over. We didn't see it as a moneymaker or anything, just as a way to try and limit excess water use and to build awareness, because we had people going way, way over 2000 cubic feet per month. Even 2000 still seems pretty generous to me; most people probably don't use 500 cubic feet.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
Well, everybody worries about the same things in the valley here, I think they worry about wildfire and they worry about not having enough water, and those are both pretty serious concerns. We've also been trying to address some of the fire issues related to drought. Lost River has a couple of people who have been active in the FireWise program, and we've had people come out and talk about things that could be done to protect the community in the case of wildfire. Whenever we have dry years, like we did last year, and like it looks like we'll have this year, fire becomes a major concern. It's often related to water too, because we have folks who are convinced that if they keep their grounds wet, that they will prevent fires from occurring.

The junior right being pulled is just a potential threat. We're really not on anybody's radar, and I don't think anybody ever checks on us, we're so far off the grid. A lot of years, we've run very close to our limit on this seven acre feet per year. With some conservation measures and talking to people the last few years we haven't exceeded that, but that's always a concern. We have lots of discussions about - is there a chance of increasing the amount of that right? Or is there a chance of increasing an additional water right for more water? Because if we have several dry years in a row, especially, we're likely to bump up against that limit.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**
They're getting to be a seven and eight, I would say,

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**
Well again, fires are getting to be a threat every year; that's not going to go away anytime soon. This place gets more and more popular, so the number of people we have spending summers and falls here and using water increases. Increased dangers of fire and increased number of people and water use are going to go along with the drought conditions I think.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**
They're going to be serious. I mean, they're going to be eight, nine, even 10.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
Water conservation is going to be one of the primary things, and we've taken some steps, but we'll likely have to take more in the future as our neighborhood population increases. We'll have to ask people to cut back more. Right now, the increased costs we have for water use is

not meant to be punitive, it's not meant to be a penalty. It's more getting people to think about what's really important.

I don't know, in the future we may have to tell people that you can't have green lawns. You live in a place that's dry, and you have to learn within those or learn to live within those limits. We can increase the cost of using excess water, and we might do that in the future. So far, we're having pretty good luck with the steps we've adopted. We really have seen a reduction in water use, and the whole plan has been well accepted in the neighborhood, and we worried about that a lot.

*Can you tell me more about that planning process? How was it structured, and what do you think led to its success?*
It'd been talked about for a long time. The year before it went into effect, we had formed a committee of about seven or eight people, and we had monthly meetings discussing what the limits should be on water use, what the cost of excess water use should be. We talked about it board meetings, and we have an annual meeting Memorial Day where everyone, well, not everyone, but most all of the homeowners come to and so we discussed it at those. So we had discussed this for two or three years in advance before we actually adopted it, and we had thrown out various ideas of what the limits of water use should be and how much it was likely to cost for exceeding that. It wasn't a surprise to people when we put it into effect last year. Even when we put it into effect, we gave people a couple of months so they could see their use. We measure the water use once a month, and most people aren't aware unless they ask about how much water they use, but we tried to make it easier for people to find out what their water usage was. For the first couple of months last summer, we sent out water use information to people that were exceeding the limits to say, "Okay, this is how much you used, if we had had the policy in effect, you would be paying $150 more this month for water." Some of them were a little taken aback by that, but they started cutting back. I mean, you can get into people's pocketbooks, and it makes a difference with most people.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**
Are we a town? Maybe we are. In Lost River, we have our own water system and so we have to be concerned about water rights. But everybody that lives between here and Lost River are individual homeowners that have their own wells, and they can take as much water as they want. They don't have to please the Department of Ecology. I would say towns, as long as you include small communities like ours, yeah, I'm not quite sure about some of the other locations, the developments that are similar to ours, like Edelweiss and Wilson Ranch, Timberline; I'm not quite sure how they how they're set up, and if they have the same kind of water concerns that we do, or if all the individual owners have their own wells.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**

Some of our challenges are related to sometimes this slowness of state agencies to respond and work with us on some of these things. We have issues coming up, on occasion, with the Department of Ecology that are very, very slow to get resolved. For a year now, we've been trying to get this senior permit turned back into a water certificate, and it's been in their court for over a year now, and we'd like to get it resolved. What happens with our community, at least, is that someone will start working on a problem, and then after a few years, they get off the board, they get old, they move out of the community, and the issue doesn't get resolved. It falls in the lap of someone new a few years down the road. They look at it, and they go, "what is this all about? I have to start over again."

For example, I got a letter this week that was addressed to someone in our community who still lives in the community but hasn't been on the board and hasn't been active for a while. It was from the Department of Ecology concerning the classification of two wells, and it was in response to something we submitted in 2015. I had to keep rereading it. This week, I'm on the phone, trying to get a hold of someone at the Department of Ecology, just to figure out what this was all about, and finally, someone got back to me yesterday to say, "yeah, we approved the wells and their designation, and we just wanted to let you know." But I didn't get any explanation at all as to why it took 10 years to do that. I have the same fear with trying to resolve these water rights, the water permit question, since I'm getting off the board in another year or two. I've done this for almost six years, and I'd like to pass some of this on, but the next person is likely to get a similar letter in a couple of years saying this is still up in the air.

For opportunities, I feel like most people have a pretty good feel for at least the consequences of drought and the dangers of wildfire around here. I guess what people are less aware of are the potential solutions and avenues moving forward, what we can do to try and better use our water and to ensure that that we have as much as possible.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**

I'm pretty positive about it, at least in Lost River. I went into these water conservation issues thinking this is going to be a hard sell, people aren't going to want to change and they're not going to pay for additional water, but I've been kind of surprised. We've had pretty good support, and most people at our annual meetings now are nodding and saying, "yeah, we need to do something about this." I think in general, there's a pretty good awareness of just what we're up against. You're still going to find people who say, "well, they're making fish more important than they are people, and that's a problem." But that's a minority opinion I think. I think most folks in our community, they love living where, where they live, and both

the Lost River and the Methow River run through our community, and it makes it really special. I think people are generally receptive. If you lay out what needs to be done and what we can do to address drought issues in the future, I think most people are receptive.

**How would you rate the community's current motivation to make needed changes?**
I'd give it an eight, I guess I say I'm pretty positive about it.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
I have been curious about the Watershed Council, and what their role is and what their goal is in dealing with water issues in the valley. I was glad to see Boo Turner get on the Council. I had thought about it for some time, because I know the position had been open for a long time, and I had other stuff going on and I couldn't do one more thing, so I was really happy to see her get on the Council. I'm curious what the role of the Council is in managing different water interests and the change over time between agriculture, tourism, more population and water demand, and how that gets balanced.

# Mallory Hirschler

Assistant Regional Habitat Program Manager
Washington Department of Fish and Wildlife
May 16th, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
I work for Washington Department of Fish and Wildlife. Our mission is to preserve and protect fish and wildlife and habitat. Water is pretty critical to all of those missions, because every aspect of life is dependent on water and every species is dependent on water. I was recently the Methow Watershed Habitat Biologist, which is a position that focuses on ensuring there no net loss of critical habitat. It does that in three ways: The first is through hydraulic project approval—so any project that affects the better flow of state water has to be permitted through the habitat biologist, and they're really looking at it for the protection of fish life. That's where the jurisdiction lies. They also focus on forest practice applications, providing wildlife technical assistance for timber sales or forest health treatments. The third piece is our land use—we work with local jurisdictions throughout county like Winthrop, Twisp to ensure that their ordinances and zoning codes are wildlife friendly. We also provide review for SEPA and NEPA projects to ensure that projects are avoiding, minimizing or mitigating impacts to habitat.

I recently transitioned into a new position where I now supervise a group of habitat biologists. I'm the Assistant Regional Habitat Program Manager, and now I cover Grant, Adams, Douglas Okanagan and Chelan County. We're currently trying to fill the Methow Habitat Biologist position.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
You can go a lot of ways with that. I'll think about it from a fish and wildlife perspective, because that's what my agency's mission is. The obvious one is that we have a lot of salmon populations here; we have Summer Steelhead, Spring Chinook. Those are ESA listed. We also have Bull Trout, Lamprey, Summer Coho. The list goes on and on. If there's not water in the river, then those fish aren't going to survive. I will say that's probably the number one threat to our fish species in the Methow is the availability of water, and then what is the temperature of that water? The less water that's in the system, the warmer it's going to be. Those species rely on cold, fresh water, so the availability of water and the temperature of the water are obvious ones. On top of that, we have other species that rely on water. All species rely on water.

With drought, you know, there's increased wildfire risk. Wildfire is natural; our landscape here is fire dependent, but we want to make sure that those fires don't reach a certain threshold that's detrimental and that could wipe out habitat. If drought increases our likelihood of severe fires, those severe fires can be very harmful to our species. For instance, for mule deer, bitter brush is a big thing that they eat, especially during wintertime. Bitter brush takes a while to respond from severe fires. Luckily, Sage Brush bounces back fairly quickly, but bitter brush takes a long time. Based on some of the fires that we've had, now, we don't have as much bitter brush as we used to, and that's detrimental to mule deer.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**
I mean, I want to say 10, but is that too dramatic? I just think that is the number from me, looking at it from a fish and wildlife perspective. I think drought is probably one of the number one threats, because if we don't have water, nothing can survive.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**
I think all of our species are going to suffer. We live in an arid climate. Drought is part of the life here, like wildfire is part of life. It's just these new extremes that are causing an issue, and with climate change, that's only going to be more extreme. I think our salmon and steelhead populations, not to be totally dire, but if things continue we might not have those populations anymore, and then that has so many cascading effects for all species,

**H ow would you rate the seriousness of these projected impacts (10 being highest impacts)?**

Rating that is also a 10. I just can't express how much the urgency there is. I want to say climate change is the biggest overarching threat to the Methow, and then drought is a factor of climate change. I think if I had to choose one issue to be like screaming from the rooftops, it would be that. We could also get into the recreation pressure of the Methow, but that's not drought related.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
The first one that comes to my mind is efficiencies for irrigation intakes. Whatever we can do to first get water consumers off of surface water, so not pulling water directly from the river, but if you can pull it from the well and then have a localized water source on your property, that's just more efficient, and it's also not going to impact fish life as much. Whatever we can do to make water conveyance more efficient, like piping ditches and getting more efficient systems for agriculture crops would also result in water savings. Any water savings are going to be a better outcome because we're ensuring more water is in the river. Yeah. Then there is

some cool restoration work happening. We're at a cool point right now where we're more focused on process-based restoration, or low-tech restoration, and that's restoration that's essentially mimicking beavers. Beavers are the key. They are such cool ecosystem engineers. They do such a good job at slowing water down and keeping water in our head waters; having more restoration practices where they're mimicking beavers, so that water is just staying on the landscape longer, it's not being conveyed quickly is huge. And then our flood plains could be more of a sponge, where they're soaking up that water, and that's going to raise our water table, and it's also going to make us more fire resilient too.

Part of our drought is being exasperated by the anthropogenic impacts on our creeks. Our creeks have been harvested heavily, they've been manipulated and straightened, they've had cattle or livestock influence. Our creeks are incised, they're straight, and that's creating a scenario for the water to be traveling so quickly. If you have a super straight thing like this, water is going to move fast, but if its sinuous and has some roughness in there, that water is going to move a lot slower and increase our riparian buffer to have more vegetation, and all of that is going to lead to a more resilient climate, especially against drought. I've seen those low-tech process based restorations, where creeks have normally historically run dry, then they've had this restoration technique, and now they flow year-round, even in drought periods.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**

This is definitely not my expertise. Our hatcheries use water, yeah, but probably not at the same scale as those other things? I guess domestic used to be a better way to say it than towns, because a lot, most of the people that live here live in unincorporated townships, throughout Okanagan County. We could talk about use from a recreational standpoint. We have Davis Lake that has an intake, and Pearrygin Lake, for instance, that that's a closed system and water gets bumped into there. I guess their recreational use could be another component, but again, most of that use is a byproduct of that water being used for agriculture.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**

Education and outreach are always number one. My pet peeve is people building rock dams to in the rivers to do make their own personal swimming pool; I've seen so many fish get stranded in that, because the water level drops down, we're in a drought, and the fish now have dams that they can't get over. If people just knew the impact that would have… it's kind of a silly example, though, the problem is much bigger than that. I think education and

informing people on more efficient uses or systems for their water, like we were talking about wells versus surface water, and then building understanding around those pieces.

Some examples from other watersheds, and this might be happening in the valley... I don't want to open up the can of worms here, but people selling their water rights to downstream developers. I think that's a big issue, because if you know water rights are expensive, people will pay a lot of money for them. Figuring out ways to keep our water within our watershed is important. If they're selling it to someone that is further downstream, then you can argue that at least the water staying in the system longer. But I think understanding the long-term impacts of not keeping water in the local watershed is critical.

To require people to change fundamentally how they think about water consumption and realize how your individual actions could impact the watershed as a whole—that is hard for people to grasp. That is a big shift in the way they think. I think that that's the challenge.

With efficiencies there is the potential to save money, so from a monetary perspective, that's, that's an opportunity. There is also an opportunity to be smart about development. Luckily, we have our one acre on the valley floor, and then it goes to five acres, and then 20 acres, and that's incredible, because if development gets more condensed than that, the water consumption is going to really skyrocket. Ensuring that development is happening at that parcel scale, because there are other counties that are trying to reduce the 20 acres and five acres, yeah, and we have concern about the impacts that's going to have on water. One other thing is native plantings, having drought tolerant species, that's a big thing, and something people can grasp.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**
I would say highly motivated. The Methow is real unique place.

**How would you rate the community's current motivation to make needed changes?**
I would say like eight. Everyone that lives here feels a stewardship, but then we have a lot of outside influence—second homeowners, tourism, and that's critical to our economy, and I'm not downgrading them, but I don't know if they would feel the same stewardship as a true local and thus maybe not have the same concern. That could maybe skew it down a little bit. The Methow is a good place, we have a really strong sense of community, and if any town could rally behind a cause, it's definitely the Methow.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
I guess I can end on a shameless plug. As habitat biologists our scope is really the watershed as a whole, and to make that the best wildlife and habitat; that's where our mission lies. We

want to give people technical assistance when it's related to biology. We also have an engineer too, yeah, that can come provide technical assistance. We have a fish screen team that can help make your intakes more fish friendly. We have fish passage biologists to help you think through a push up dam for your irrigation. We have a suite of resources that are free for the public to use to talk through anything related to water.

# Rick Alford

Methow Supervisory Fish Biologist
Yakama Nation
May 9th, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
I am a supervisory fish biologist with the Yakama Nation's Twisp field office. Our priority is coho reintroduction. It's been a 30-year process so far. We do other things, such as assisting recovery efforts for ESA listed spring chinook and steelhead using remote acclimation sites, assisting the habitat folks with snorkel surveys and tagging activities. We have priorities, but pretty much anything fish related we might assist with if asked. Then I have been in a group with other fish biologists and helping local folks and organizations with questions regarding fish use, habitat needs, that kind of thing. It hasn't been happening too much lately. We've had several panels and discussions with people over the years. That's my livelihood. As for my family and I, we moved down to Gold Creek from Twisp and I've been here about 21 years now doing the same job but growing it. It was a very small effort back then but it has grown in scope considerably. Before, it was just myself and a couple other people. Now I have staff of nine permanent employees, and at this moment, four or five more temporary people; it's a big project.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
Well, that's a big question. Certainly drought, short term and long term are going to impact water availability as well as quality in certain circumstances at different times of the year for everything. Right now, I'm looking at the hydrograph almost every other day because spring run-off events are extremely important for out-migrating juvenile salmon.… certainly it affects everything, not just fish, we're talking ecology as a whole. But the reason why I'm looking at this every other day is because currently, all of our fish are leaving Natural origin fish that are in the system have already started going and our hatchery releases are happening now, and for a better survival chance, they're going to need to go out on higher spring flows, which is what these animals have adapted to do. That's part of their life history. Increased flows also increase available habitat that are needed for better juvenile survival as well. Albeit on a temporary basis as those areas dry up in the summer months. In a low flow year those habitats may not be available and cause competition between species for example.

But as the effect of drought becomes more and more severe, that gets complicated, because now you have the potential for persistent lower flows over time that will likely correlate to lower survival for out migrating fish as well as resident speices Higher flows also bring

increased amounts of sediment that can function as cover during outmigration  When you have less flow, you have a tendency for fish to potentially not migrate as quickly or as fast as they might normally, and clearer water may increase mortality through predation.

Part of what we do and part of our monitoring efforts are to assess the out-migration rates, and the longer the out-migration rates, the less survival we see.  This year's flows seems pretty good for releases albeit a very early peak run-off. It's all about timing.

There are also landscape effects in terms of drought.  We're not only talking the amount of flow, but certainly temperature. If you're a fish and you're out-migrating, you're going to run into a series of changes in the mainstem Columbia and that temperature has a big impact on the ability to survive. The way dams operate during the spring also change based on spring flows every year. On the way back upstream we also see temperature effects. In July, you'll be fishing for sockeye, but you're seeing dead ones float right by you because it gets so warm. Tributaries  like the Similkameen in the Okanagan that used to be a cold-water refuges, and now people are beginning to see that they're not a very good choice for ish to be dipping in there in the summer months for cooler water because the temps are now too high sometimes.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**
Well, I think I will answer that question with a link into the future and say 10. It's a train that's rolling off the tracks, and we can see it, the timing and the issues, and the problems, the impacts to not only fisheries and water resources that we have huge impacts with all of the irrigators, particularly farmers, too.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**
I think that we're going to see some species blink out, like our Summer Chinook, particularly in the Okanogan River. In other words, we won't have any actual natural original fish left, those endemic genetics, those fish that have over the millennium locally adapted. That is also going to impact our ability for supplementation, certainly for production through hatchery mitigation. Fish need, whatever species we have here, they need cool, clean water. Drought not only impacts our surface water, but it impacts our water tables, and as things become more difficult, no doubt we'll be tapping more and more into the water tables.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**
It's absolutely at a 10, yes. This is a five-alarm fire, I think, with the impacts of climate change and what we're seeing. As the science gets better, over time we'll have a better idea, but for right now, our best science tells us that we are careening down a hard road

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**
Well, there are some efforts right now. One is my favorite program our beaver relocation program, and part of that is cold water storage. They put relocated beavers into the higher areas where they can make impacts by creating dams and homes that that provide cold water storage. I think that our irrigation systems can continue to be, and this is just my opinion, I am not anywhere qualified to talk about our irrigation systems, but I think that if they were upgraded so that we didn't have any open irrigation that would have impact. You lose that to evaporation. Certainly in some places where we've had our open irrigation systems you get a lot of habitat that actually comes out of that and I think that, as a nod to those, if they're now important for habitat, then they should probably be considered. But otherwise, I think that we would be wise to prohibit the evaporation as best as we can.

It's a tough problem. Growth in this area is increasing . At what point is enough enough? That's, politics there, I'm not getting anywhere close to that one, but we only have so much. We talk in terms of snowpack and it ebbs and flows, but as things get a little wonky here, due to the effects of climate change, who's to say what can happen? We do know that we're going in a direction that you'll have to consider growth. At the end of the day we could be sucking more water out than is going in – I mean, look at California; that is a prime example.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**
Well, it's funny that nature is a part of that question, because that's just how it is. Nature "uses" water... I guess. I think those categories make sense though. This is an agricultural community, you bet. I don't know that you would limit nature in terms of just instream flows; you're also talking about wetlands, both permanent and perennial, water storage. I think instream flows are just one part of what mother nature is using water for, certainly.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**
I think there is a need to come together and create a cohesive plan, alongside a lot of user groups plan based on best available science. I think the biggest challenge, and this is just me off the cuff, is getting all of these user groups to understand the issues, and then there's going to be compromise. There has to be compromise to get to common solution. But that's one part. The other part is the politics, asking the question when enough is enough? I'm only talking about just this community, and I haven't rehearsed these answers, but what's our growth potential here? That's a potential challenging issue. We also need to talk about water

treatment; I know we have an expanded water treatment plant here in Twisp to meet those demands.

But, yes, I think the step is to have all users come together for a compromise solution, an understanding, and to provide a plan. This isn't going to be the kind of thing that, okay, we're going to do a, b, c and d and go, right? There are going to have to be contingencies, and it's time sensitive, and it's going to change. It's a very complex onion. I mean, some years we might have awesome snow, maybe too much. Again, looking to California, they're like a rubber band, they're all over the place. But at the end of the day, even with some of the gains and back and forth water levels, you know, continued to drought will bring that back down and people will continue to siphon it out of the ground.

I think there are a lot of opportunities to build public awareness. I haven't seen a lot of mention about drought, I really haven't. I'm not going to say I read the paper every week religiously. We look at the bulletin board all the time, but as a community, we're pretty good about getting things out, and I really haven't seen a lot of meetings or workshops or whatever, community wise. Professionally within normal natural resources folks there are; climate adaptation is kind of baked into most of our projects.

One related example of community engagement - the sixth graders have a salmon unit every year. One of our friendly local fish biologist has helped with it for years, and I got to help this year because my daughters are in sixth grade. There was an assignment where the teacher assigned different kids different roles: you're a farmer, you're a fish biologist, you're a landowner, to live here in this exact spot, and then set up this scenario where water was scarce. They practiced their roles, and then we had a town hall, and the kids came up with their own solutions based on maybe a list of three or four ideas that they had. The parents got to go watch it. They had two kids that were the moderators. It was kind of chaotic, but it was also pretty awesome. It was actually pretty in depth. They put some twists in it to really make the kids think based on their user group assignment, and there were like, I don't know, five or six different types of people, different jobs, different interest groups.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**
I think we could do a better job. I think it starts first of all with a little more effort in public awareness. It's hard to gauge. I'm just responding, because that's my initial gut feeling, but I think that we could do better.

**How would you rate the community's current motivation to make needed changes?**
This is going to be a weak answer, but I have got to go with five. We are a motivated community for sure but I don't know. It's an extremely important issue that is at our front door. Unfortunately, like everything else, these things are politicized, and in today's climate it is

extremely difficult to muster the effort or the initiative to start a conversation about something like that.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
The tribe has a pretty robust climate program and we do have biologists who work directly on those issues. We do have a hydrologist who provides monthly reports, so that is primarily where I get my information for big picture forecasts, . It comes out every month, and I know I'm going to get it. I just hope that through this effort (interviews of different user groups)the Watershed Council can come up with a plan. I would hope that they would gain a little insight into what their next steps would be, to get out public awareness. Let's get a couple town halls going or something, have some people out, some professionals, to discuss this kind of thing, so that people understand, have question and answer. I feel like, well, we'll put it off, and put it off, and then the next thing you know, it's 10, 15 years down the road, and now we're not talking about a planning for it, we're being reactionary, and that can be extremely impactful. The writing is on the wall. Can't act surprised.

*Addendum via email from Rick on June 5th:*
*"Our discussion was before we knew and realized the onslaught against our science communities by the current administration. Particularly the folks whose jobs are/were directly related to climate monitoring (ocean, weather, etc..) at a time we need them more than ever. My answers (in the interview) would have reflected this to a degree. It's hard to say right now, but these cuts will likely have a huge impact on our ability to adapt globally, much less a small community who depends on those resources to adapt localized plans."*

# Steve Dixon

Lower valley resident
Former MVSD, MVID, USFS
June 3rd, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
We came here in 1976-77 without jobs. My wife has a BS in zoology, and she was the first female zookeeper in Denver. I came through psychology at UW, and now I have a master's in education and supervision of instruction. I did all sorts of jobs here, and so has she. We started out with the Forest Service. I had been a surveyor, worked in the woods, cut down a lot of trees, dug graves, anything I do make it go. I was social worker a couple of different times, and then I got into teaching sixth grade, which I did for 25 years. I'm still substitute teaching, and my wife was the Twisp librarian for 31 years. We landed at a good time and made the best of it, I think, compared to how hard it is to get established now, with all the new people.

I was also one of the MVID directors when we switched over from open ditch to the pipes. I had fought the switch for several years, wanting to keep the habitat, but we kept going to court and losing water every time and we lost significant funds. The DOE and others made a deal we just could not refuse; actually, the judge said "just don't come back anymore" because we were spending all our upkeep money on lawyers, and even the lawyer said, "you'll never get a better deal than they are giving." Yeah. We got over 20 million bucks to put in 12 miles on this side and as much on the other side. I don't know the numbers anymore. We all, down at this end, went onto wells 45 or 50 wells this way. The pipe wasn't going to be economical this far out. I'm proud of being involved in it.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**
I know that it's significantly more drought-y now than it has ever been. In my limited little ecosystem here we use more water, we use it way earlier, and I don't see it getting any better. There are a significant number of people who want to do small farms around here but it's had. There is a farm we call Turnover farm just a mile up the road that's been through four hands already in four years because of the impacts of drought, I think. Insects drove one group out last year, grasshoppers. That's, basically the problem is, there is basically no soil moisture building up. It's gone too early, and so we're going to the way of weeds and bugs. It's inevitable, but hard to see.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**

I see it getting a lot worse. I don't want to overestimate it now, because there are going to be some tears later on, well, there already have been. If the snow holds up the recreation people will still be happy. We'll still be bringing in people from the coast to do that, but with that brings more water pressure. They like a lot of services. They like green lawns. They're not going to be farming. My interest is more in Ag, and I hate to see that go. We're fine down here on the river with water, but 200 feet up that direction, it's a different story. Nobody's going to get any more water than they have right now. And the salmon are going to be seriously impacted if we keep dragging water out of the river like we are. If I had to put a number on it I'd say 6.5 and growing.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**

I haven't kept current with the fish people, but I think we're going to come head to head with any ag or any fish. It's just a such a complicated calculus of when the water is needed by fish and when we can irrigate, and everybody's aware of it and trying to do their best. I want to bank 30% of our water for that purpose, but with what I'm looking at now, I'm still going to do it, but it's only because I'm not farming anymore. I got out of cows. I've got a big garden, but that's inconsequential. I'm letting the guy use the property for hay. He's got cows, but he's a dry land farmer, so he's used to doing without that. I don't know who's going to grow hay for us… Canadians? But that's going to be pretty expensive these days. We ship out a lot to Canada right now.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**

It will be eight or nine, for sure. Everything will all limp along, but it'll be a different world here. The complicating factor is, of course, people coming over here to live. I don't know what's going to happen. My son's a contractor, and he's got work, and he'll continue to have some work, but with the financial markets like they are, and cost of houses, that industry is going to go through its ups and downs. It has since we've been here, we've seen a lot of that, but it'll get pretty severe with the number of contractors and real estate agents we have right now. I don't know what the people on the coast are going to do. I suspect they're going to want to come over here, because they'll be flooding over there! But over there. Lots of unknowns.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**

The FireWise stuff is big. As we sit out here under an 80 foot tall, giant spruce … I cut one of them down here 30 years ago. It's was just as big or bigger. This one should have gone; it should never be planted there, but I'd hate to see it go. I'm hesitant to even invite the

FireWise people down here; I know exactly what they're going to tell me. The whole area here is green, and when we've had fires we have 20 people staying with us with all their animals. I'm pretty confident we are okay here. But just go up in the Golden Doe and fire season is there –it's just two foot tall grass everywhere.

We've got to finish putting all the canals and pipes. There are still a few out there. The direction we're going now towards putting more housing in the towns a little less on five acre pieces would be a good thing to continue. I wish the lower valley would get the right kind of zoning to move towards that and get away from the one acre minimum. They're just as vulnerable as we are and we get the water first. We've got a lot of open ground and a lot of orchards that are not going to be economically viable here probably. I don't know, that industry is hard to follow.

I have some other notes here – I mentioned irrigators under stress earlier, and us having runoff earlier than ever, and it's like a month early from the old days, which leads to a real long season.  Drought will lead to more restrictions on water, and there's going to be a lot more battles over what we've got; when you put water in the fight there are a lot of opposing views of what to do. That's going to be a problem. I hate to see a tear neighbors apart. It's going to lead to less small agriculture, and have an impact on firefighters. If we lose our firefighters, we're deep trouble. We need some political action to take care of that. There's a lot of things that need to happen on national political stage to make us safer. I was thinking about the wildlife and the forage with less soil moisture, three will be a lot more pressure on the deer herd and all wildlife. The hunting industry here is also significant engaged group, with a voice that is going to be unhappy if they can't go out and shoot things. There is also fisherman, they are not well organized, but there's certainly a lot of them. I see 50 a day float by at certain times of the year, they're active.

They is going be fewer poor people around here. The whole structure of our demography is going to change. We're going to be dealing mostly with people with resources and expectations. We're going to be less diverse, I think. I mean anybody with any land that was here 50-60 years ago is going to be selling, and we'll be selling to people from the coast with jobs out of town. Our culture is going to change. It already has tremendously, especially like in school; I've seen that schools double and triple in size since I've been here. The haves and have nots are more deeply divided. A friend Terry's, Jennifer Sherman, wrote a book – Dividing Paradise – about the Methow a few years ago. She's friend of ours and she sees it very clearly, all over Eastern Washington, well, all over the West. We're going to be a poster child for that division; we are already.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**

I think it's 80% good. But you've got to consider the recreation use and tremendous number of people here skiing. I don't know what the numbers are, but fishermen and water storage is just a huge use. We could extend at least summer seasons a little bit by building artificial lake here, things like the beaver project. All those things can help out for the summer season. But what you can do for skiers? I have no idea. It's warmer and wetter in the winter, and that's good for some water coming down the river, but it's not good for snow.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**
Well, it's back to the same have / have not divide, I think. It's going to be real hard to get the people who are struggling right now to look beyond their own needs. I've got plenty, and I still am selfish, so it's a challenge in how do you encourage people to step back and see the community as an organism, and want to help be part of the change? That's education, that's environmentalism, that's DEI in school; I support that 100%. We need more education… more socialism!

I see opportunities for building more awareness in conversation, one on one. I get along with a lot of Trumpsters and I am trying to get better at it yet, to share opinions and views equitably, with friendship in mind, kindness in mind. But there are a lot of forces against that. I think there are going to have to be a lot of national political changes, and politics start at home. I entertain this basically every day.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**
I think we're pretty much ahead of the curve. We have a lot of engaged people, and a lot of engaged people with resources, which is wonderful. People here speak out. The newspaper tends that direction. They invite editorial comment, letter writing from people with views I share anyway. Politically in the county, not so much, but we do speak up there, and we do put some pressure as a community in that direction. I've been on a lot of letter writing groups.

**How would you rate the community's current motivation to make needed changes?**
Seven or eight. I appreciate everybody's efforts. I try and be part of it. I think there's more and more people coming in who share my beliefs too. Unfortunately, we're getting pretty homogeneous, at least my crew, we tend to stick together. It's hard to engage the others sometimes, and it's hard to lose them, because they've got the history. When I came in, all we wanted to do was be part of it, we didn't want to change it, and now that perspective has changed. We need to be part of the change, because it worked in 1970 isn't going to work anymore.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**

I live by it. I love it. I've got grandkids next door that live by it and love it, and I want to keep it. I don't have a whole lot of ideas other than a whole lot of gratitude for where we landed. It is bittersweet, but generally speaking, I am grateful for what we've got and where we're headed, at least in this little neighborhood. In our area, things are still looking good, and we work together. I'm happy there's people like you who want to gather opinions and share them and keep working on these issues.

# Vic Stokes

Rancher
Beaver Creek
April 28th, 2025

**Tell me a little about yourself, your job/position/livelihood, and your organization's relationship with the Valley's water resources.**
I was born and raised here. Well, I was born and Twisp, no hospital for me, but I was raised here, right on this ranch. My great great grandparents had come from Chicago with their family and homesteaded up in the dry hills, up here, on what is now Department of Wildlife Land. My grandfather and the grandmother also took up a homestead up there, and my dad and his siblings were all born up in that area, and then they moved down here for a while and had this place. My grandparents lost it during the Great Depression and had to move back up the hill. But then my mom and dad came and bought this again in 1945 and we've owned it ever since, so I was raised the Beaver Creek Valley.

We grew up with water issues. Beaver Creek is an adjudicated stream. There are other adjudicated streams in the Methow, I think Libby Creek and Bear Creek and Wolf Creek, some of the smaller tributaries are adjudicated. Growing up, they'd talk about drought and preparing for drought. We were always in a drought situation it seemed like because of the competition for the water resource and the poorer water rights would quite often get curtailed in the summertime, because it was a little more competitive back in the homestead days and up into the 70s and 80s. Back then there were a series of small farms and ranches up and down the creek and everybody was making their livelihood off that. It was pretty competitive and really important to have that water resource to make a living. If you had a poor water right it was tough, because you got curtailed in the summertime.

I think the adjudication was in 1921, and in looking at the history, there were at least two or three lawsuits between neighbors over water before the adjudication; even after the adjudication, there were lawsuits between neighbors on particular ditches and how they were operating. I was raised in the house down here by the highway, and I remember sitting at the kitchen table listening to my dad talk to the Department of Ecology's water master, because there was a big struggle on the creek in the 1960s and there were some lawsuits between neighbors on how the interpretation of the adjudication should be handled. I've been around tough water conversations a lot over the years. I would say in my lifetime, it's gotten easier now because we've got more efficient systems.

I'm a proponent of piping ditches. I understand the dilemma; people see that there's a ditch right across the valley there and you can see that a nice little green row of trees. People get

accustomed to that, and they don't want to see that disappear. But for me as an irrigator, getting water from point A at the creek to point B at the fields in the most efficient manner, and not having to worry about ditch breaks and loss of water and all those things, it has made life a lot easier. And then there are center pivots. When I was a kid they had open ditches and flood irrigated the fields, and my dad talked about that, when he was growing up. He grew up when the adjudication had become enforced during the dry part of the summer, and he remembered his dad only being able to irrigate small portions of the ranch because of the leaky ditches and things like that. It was quite a turnover in how people operated when that adjudication happened.

In fact, when my mom and dad bought this place in 1945 he had a conversation with the original homesteader, and he said "Oh, you poor kids, you'll never be able to make it because you don't have enough water now," because prior to the adjudication, they were they had bigger ditches and some of the guys just drained the creek. They'd take as much water as they could, which worked all right this time of year when the creek is high, but when it got into the heat of the summer, it didn't. That's why the adjudication happened, because people at the lower end of the creek, which ended up having class one water, weren't getting. their water. I imagine they just pretty much dried the creek out further up in this area at times.

This conversation around water is nothing new in this part of the valley. It's a little newer in other areas when the ESA listing came for salmon species in the 1990s, when NOAA fisheries came in here and started shutting ditches down it really started to capture attention.

**What do you know about the impacts of the current drought on the resources within your area of expertise or on your or your family's livelihood?**

I think we're much more prepared for it now. We lease some properties with ditches that aren't piped, but the ability to, if you do get curtailed, you're still getting some of your water to the field and you're able to use it, especially with center pivots. With pivots you can get the water across the ground and irrigate it more efficiently. So I think we're much more drought resistant than we used to be. Fortunately for us in the Beaver Creek Drainage, hasn't shaped up to be quite as much a drought concern as maybe other parts of the valley. I get information from the NRCS on their SNOTEL and other snow measurements they take, and I think Starvation Mountain, which is the highest peak in the Beaver Creek drainage, has a snowpack measurement close to 100% of normal. Loup Loup was 120%.

Fraser Creek is quite a bit smaller of a drainage, but I think Beaver Creek has been insulated a little bit from the rest of the valley. I hear Harts and Washington Pass are quite sub-normal. Just looking at the river going into wintertime last year, it was really low down here, where highway 20 meets 153. It was phenomenally low for the Methow River, though it's come up some this spring. We've seen that before.

I know other irrigators have piped their ditches, and I'm sure they're more efficient so they can deliver water to their customers better. We're not an irrigation district here on Beaver Creek. It's all individual. It makes us a little different than having an irrigation group like Twisp Power and Light on Twisp River and Barkley and MVID and Foghorn and all those ditches. There are a few private ditches, I suppose, farther up the valley. We're a little different here, and we have to figure it out ourselves. We do share ditches with other people, and then there are other systems we have where we're the only one on it.

Another thing that happened on Beaver Creek is we got listed on a 303-D list with Department of Ecology years ago, related to impaired waters later in the summer. I don't know if that leads to ideas around what they can consider pollution, like low oxygen levels and things like that; I would imagine they're all tied together. There has been a lot of money that came in, just like elsewhere in the Valley, for irrigation efficiency and piping ditches. That's all been really positive for us. We wouldn't have been able to finance that ourselves without some kind of external dollars.

**How would you rate the seriousness of these current impacts (10 being highest impacts)?**
I'm going to be the middle of the road in that five area, I guess. We've been through these so many times just because of competition for the resource competition for the resource. I guess maybe it's a frame of mind that has put us where we don't get too worried.

**What do you project the likely impacts of the current drought might be on the resources within your area of expertise or your or your family's livelihood if the current pattern of drought continues?**
There have been some late season water right purchases and there has been water put into trust, which will probably help us. It's sometimes that late season water competition that diminishes the stream. Some water gets shut off August 1 on the on some of those late season leases. Some of it has also been purchased outright. We farm some of those properties, and I think we have to be on top of our game to be good irrigators in order to get at least two good cuttings of crop. Normally, we could probably get three on a lot of that, but when your water gets shut off August 1st you just try to do the best you can to get two good crops. Department of Fish and Wildlife and some other people have put their water into a trust so they don't use it at all right now. That's helped reduce the competition for the resource. Our sons are involved as partners in the ranch; they have off the farm jobs now, but they'll have to make those decisions if they want to maybe lease some of those late season water rights periodically.

It a lot of it depends on the pressure from outside entities like this 303-D listing to make sure that there's water that's not impaired at the lower end of the stream. We don't have an instream flow level set here on Beaver Creek. If perchance some legal direction was given where we ended up with an instream flow level that would change the dynamic quite a bit. It

depends on what that instream flow volume would be. I think there's going to be continued interest from agencies to purchase some property in this this area, and I don't know whether they're looking elsewhere in the valley; I know there's Tribal interest in purchasing property, and they're probably looking to put some that water back in stream. Certainly, Department of Fish and Wildlife like to see the ground irrigated, but maybe they will switch to some late season curtailment, I don't know, if we're projecting into the future.

More of the ditches will probably get piped in the area. It is just so easy to move water around when you can shut the head gate on the pipe ditch if you needed to and direct it a different way for a while; if you need if, let's say, if a rain storm came along and Creek came back up, you could open up and you'd get water right to the field and be able to apply it. In the past, as an example, I was probably a teenager at the time and it was a dry year, and these fields up behind here are class five, which is a medium risky water right on Beaver Creek. There's a lot of years that it would be partially curtailed or fully curtailed, maybe as early as July, but August for sure. Dad, when it rained again in the fall, would try to get the water to create some pasture for the cattle. One year, I went and helped him and the ditch had been dry for probably six weeks, and he turned his normal amount of water in the ditch, and he felt he could get down the ditch. And the water got part way down the ditch, then it just disappeared into the ground. It took a long time to finally rehydrate that ditch and to get water to the field. But with a pipe you're just "bing", and you've got it right there—you turn the faucet and you've got your water. Those are very helpful tools for water management. And again, the pivots have been wonderful for us, you turn a switch and you could get the water on the field and shut it off and move to another section of the field.

**How would you rate the seriousness of these projected impacts (10 being highest impacts)?**

Well, that could be fairly serious. It'd be between five and seven, somewhere in that neighborhood. I'm sure you know people will work to adjust to things. It's always a shock to the system, you know? If I've noticed anything in politics it is that somebody will throw the nugget of concern out there, and everybody says, "oh my golly, we can't live with that. Oh no." And yet, people start to think about it and work through it, and especially if there's some funding to help move the ideology along, then they can learn to accept some of these changes. It's just like piping the ditches and people I still hear say, "oh, they took away our green belts." Well, for us, it's better to concentrate on keeping the riparian area healthy along the creek that is habitat that has been there forever, rather than create an artificial one on a dry hillside. It does add beauty to the valley, to have these green stripes down the valley, but people can learn to live without those too. They can plant different trees or plant different shrubbery, and maybe use a little less water to keep those types of trees growing. The cottonwoods and willows and on the on the dry hillsides take a lot of water.

**What actions could be taken now to mitigate the current and/or projected impacts of drought on the resources of your area of expertise or your or your family's livelihood?**

We've put a lot of these structures in place already, so it's hard to think of others. One of the more controversial things for some folks too might be constructing habitat. We worked with the Colville confederated tribe to put some structures in the creek down here. We've always had beavers on in the area, and I've read a lot of articles on how if you slow the stream down, you get more subterranean storage, an I hope that works for us. I'm anxious to see how that works this summer. We have slowed the creek down quite a bit in certain areas, and I'm seeing water spread out across the floodplain and seep into areas I'd never seen it go before. That's an immediate example—just one year ago in the summer we did that. I think that's going to be quite helpful.

We need some water storage system, and we're not going to build big dams. I just don't see that happening. There may be opportunities to but you start getting into water rights and things like that. I think there's some off-stream water storage, and it wouldn't take a lot of water to create a different inflow of water, spreading out the riparian area in another way. I think there's some opportunities, and it wouldn't take big structures. I don't know how that applies to the rest of valley; it becomes a little more difficult in the Methow River, if you start putting large wood structures in there you've got to make sure they aren't going to move and affect somebody else's property or end up on somebody's road or stuck in somebody's headworks for their irrigation. Beaver Creek is a little smaller area to work with, so I think we can do things that hold together better.

The Beavers Project folks came out here and helped with the project on with the Colville, they were subcontractors, and they've been out this spring doing some work. For the beavers to work, riparian vegetation takes a certain amount of water, so if you want to store water to have some later season returns, you can't just lose it all to vegetation. You've got to have the beavers there to keep that vegetation in check a little bit, and hopefully that's a circular deal where the beavers are building their dams and helping spread the water out, but not letting the vegetation get so big that you're having a net loss on your storage. That's the theory, yeah, time will tell. Beavers are a fickle little animal, just like anything else. They're going to be here, and they're going to eat too much, and they're going to move on and then there's other predators getting them. You're just hoping everything works out in the long run.

**The Methow Watershed Council currently assumes the valley's main water users are agriculture, towns and nature (primarily viewed as instream flow for aquatic species). Is that assumption regarding our main water users sufficient to characterize water use in the Methow Valley?**

I would suspect it is, but I don't know how much water usage there is from wells. Beaver Creek is a closed basin. DOE had concerns years ago that too many straws in the ground may be affecting the surface water. Valley wide, I think there is somewhat of a concern, because there are those reaches that have two CFS reserved for homes built outside of towns.

It's really hard one to quantify, and I know the watershed council has done a little bit of that, putting some meters on the wells and trying to figure out what people are actually using. The exemption is 5000 gallons a day through state law, I believe, for homes. There are very few homes that are going to use 5000 gallons a day, unless they're using it to for a lot of shrubbery outside. You could get over 5000 gallons a day real quick that way. I know other parts of the state have grappled with this; down in Suncadia and Kittitas County, they allow you a certain number of gallons each per day for the house, and you are not to use anything outside—that use isn't included in that permit. It was 500 or 700 gallons a day for in house use, something like that. But that doesn't mean you get to irrigate. There is the other exemption in state water law, I think, is you can irrigate up to a quarter of an acre.

5000 gallons a day in the summertime really isn't too much. One of these little sprinklers could put out 10 gallons a minute. So you calculate that out for a day's usage of water, and I think you're going to be running over be running over 5000 gallons a day.

For towns, Twisp has been under the lens for quite a while because of the lawsuits, and they've had to go through and make sure their pipes and everything aren't leaking. They metered all the water to everybody, and they probably discouraged over watering on lawns because people were actually paying some something for that water. It's a very reciprocal type of influence there in town. If you don't want to spend a lot of money, you're going to learn how to irrigate your lawn or do some xeriscape or something like that. I know that it's been a controversy about wells outside of municipalities, and that's like I said, that's one of the reasons doh has shut down well drilling in Beaver Creek drainage. I think there's other drainages in the meadow too, isn't there?

They first closed this basin in the 70s, and then they said, you can still drill a well, but you have to go down into bedrock, and it has to be a de minimis type of well, you can't be pulling up 30 or 40 gallons a minute, just enough for the household type of deal. Then they came back, not too many years ago, maybe 2016-2018 they did a reevaluation of that was based on the DOE one drop rule which is you can't take a drop of water, because it's going to affect somebody else's drop of water. Since we're in an adjudicated basin, they wanted to make sure that the new wells weren't affecting the adjudicated water. They said they can't guarantee, even in the bedrock, that that isn't going to have some impact because you got that recharge. It's really hard to measure, and that's why the one drop type of thought process is hard to grapple with. Ecology doesn't like de minimis uses; ecology has never liked that term. They just want it more black and white than that.

**What are some of the challenges in generating public action for all valley residents on long term drought impacts? What opportunities do you see for building more awareness?**

Aesthetics is one thing. People want to be able to see the greenery. And of course, you have the fire danger. You want to make sure I want people to have some green space around their

house, to protect themselves from fire. There are all these FireWise avenues, but you still need to have some water availability.

That's a hard one. If I've characterized people's thought process, you've got someone over on this side of the equation, and you got somebody over on this side of the equation, that's totally 180 degrees. Then you've got everybody in between that might have gradations of those feelings. They might agree with this person over here once in a while, and they might agree with this person over here once a while, but they don't agree with them all the time. That's the way it is with water. People like to see green fields until they think that the green fields might be affecting their own water. Everybody's friendly until they think that somebody's taking their water.

We get along just fine on Beaver Creek until somebody thinks you're taking their water.

This is a conversation that's been happening for a long time. Yeah, it's not new, and most people are aware of it. They've pretty much taken their position. I call it the rubber band. You can convince somebody that they might have to change their mind a little bit, and then you think you've got them over here, and then you talk to them a year later, and they're back right where they started. It's a fairly long process to change public opinion. I think some of your public that you're dealing with—maybe recreation, they certainly want to have the river flow with enough water so they can either float it or fish, they probably come from a little different angle. They see somebody with the pivot going, and the sprinklers are all blowing nice water out through them, and they wonder why they can't have some of that, because they think that their part of the economy is just as important as my part of the economy. In the great scheme of things, it'd be nice to solve everybody's problem. We're probably not going to get there. There's going to have to be some give and take.

Let's say you do come up with a process where people say, "well, we'll sell our late season water, or we'll at lease our late season water, and we'll make sure the streams are flowing better." But then then you have that possibility of creating some more fire danger, because then the fields dry out and things like that.

**Given the potential, longer term impacts of drought on lives in the valley, how motivated do you believe the community at large is to make changes in lifestyle in order to mitigate some of those impacts?**

I think we've seen quite a bit of change it just takes time, certainly. We'll go back to the 1990s when NOAA Fisheries came in here, and it was like I said, they threw that controversy out there and said "we're going to shut ditches down." And people said, "no, we're going to fight this." And the County went through the lawsuit and lost some lawsuits. Finally, some of the ditch companies said, "we need to get water to our customers." And I think Skyline had one of the first, maybe Early Winters they and MVID has been one of the last ones, I guess. They

started going to wells, or they started piping their ditches. That initial reaction was “no, no, no, no, no.” Somebody had to start that change a little bit.

I got involved in that to a certain degree out here. NOAA Fisheries came and at that time we had a Water Users Association on Beaver Creek, and NOAA Fisheries came with the Department of Fish and Wildlife and said, “you need to screen your ditches for the fish.” We'd never had ditches that had fish screens on them. A lot of the other ditches already did, but they weren't the best fish screens in the world; there were fish getting by them. First we started with that, and then diversions had to be fixed to make them fish passable. I talked to the Conservation District about that, and we started that process. I wasn't very popular in this area; I wasn't very popular in the valley because I could see that there were laws on the books that were already saying you needed to have a fish screen in your ditch, or you needed to have a diversion that was fish passable. I didn't want to spend a lot of money, because we're an individual, rather than an irrigation district. Meadow Valley Irrigation District took the attack that we're going to fight these, fight this to the very end; they spent hundreds of thousands of dollars on legal fees, and they ended up piping their ditch finally. It would have been much more convenient for them to just try to figure out a way at the beginning. Craig Boesel was another one that said at the beginning we've got to figure this out. But it comes with the harsh reality that if you try to be a leader or take a step out in front of everybody, not everybody's going to like that. I think that's what slows the process down to a certain degree is people say, “let's do it this way.” And everybody says, “no, no, no, no,” and anybody that steps out and says, “ok”, they're going to take some slings and arrows.

The benefit for us though was that we got funding for all the pivots and piping in the ditches. Other people benefited from that, and once they started seeing they were going to benefit from that it got more traction. The piping the ditches is a tough one.  Most folks have gotten over the having a fish screen. Fish screens are not the most convenient things in the world, they take maintenance and they get plugged up and things like that, and you just want systems that work, and that don't take a lot of extra capital to keep operating. Obviously, pivots cost a lot more than flood irrigation, but the benefits are that we're just so much more efficient.

**How would you rate the community’s current motivation to make needed changes?**
I see it as higher than five. I think the naysayers have been tamped down a little bit because there's been enough projects put in place that worked, that people didn't fall and get run over by the bus. Yeah. Quite often they come out and say, “well, if you volunteer to do this, volunteer to pipe your ditch.” I was willing to volunteer. I was fully aware that there were some legal ramifications pushing you to become a volunteer. If you waited long enough, then the legal part of what would catch up with you. It was obvious it was there. MVID pushed themselves into that; they couldn't see being voluntary as being proactive. They just thought, if you're volunteered, you're going to lose out. You're going to lose out on what you thought was a good thing. Leaky ditches. They had all these reasons. The leaky ditch was good for the

system. It wasn't necessarily good for their irrigators, but it was good for people's wells and I think there is some concern there. But I don't know if you can justify an inefficient irrigation system to maintain people's wells. I think those two things have to be decoupled.

Motivation is hard to gage. I've gone to a few of the irrigators meetings that were put on by the Methow Watershed Council, and I got the sense that maybe people up like Twisp River, which had been anti piping, are a little more looking into that strategy. The other thing about an open ditch is the liability when it breaks and goes down through somebody's yard or does something to their house. It didn't used to be that way– there didn't used to be a million dollar home sitting down below the ditch. Most every ditch I've ever dealt with out here has had a ditch break in somewhere along the line. Ditches age just like everything else, the tree roots in there die and the gophers and groundhogs and whatever rodent makes holes in the ditch banks, and so as a ditch gets to be 100 years old, things break down inside of them.

**That's my last question – any parting thoughts to add about your perception of drought or your organizations' relationship with the valley's water resources?**
I'm not going to say that I don't disagree that we're in a drought or a dry period. It isn't anything new for the Methow Valley from my perspective. Summers are dry here. The difference is the number of people that are looking at the resource that want to have a say in it. Let's say back, back in the day when agriculture was the king, and there were orchards here in the 1930s and 40s and into the 50s, if the if the river got sucked down dry, you didn't hear anybody saying, well, let's worry about the fish. But it's a different perspective now. I don't disagree that we need to maintain a resource for fisheries and recreation and things like that, but it is a different perspective that we've worked our way into. There are a lot of people with different views now; at one time was more that homogenous agriculture view that agriculture needed the water, and whatever it took to get water to agriculture was fine. Then as endangered species became more potent in enforcement of that, and then as the valley morphed away from some of the agriculture aspects and maybe the recreation and just aesthetics came along, people start saying, "well, where's my water?" "Where's the water I enjoy?" And things like "you're not being efficient with your water, so if you're not going to be efficient with your water, give something to me."

I think the solution quite often comes in the in the dollars and cents that flow in to solve the problem. It becomes a lot easier to buy into something if somebody's going to pay for it, and we've benefited from that greatly. I don't deny it. We put a lot of our money into the process, but it's been magnified tremendously by grant money from other sources, and we wouldn't have been able to do it ourselves.

I look back at the adjudication and I have an old abstract that used to follow the title on the land. There was a petition at that time. The water law in 1917 I think, was finally enacted to do adjudications in this state. There were some petitioners on the creek said, "yes, we want an adjudication." I think it only took six or seven people to petition to have the creek

adjudicated. The state said “yes, will adjudicate the stream” They turned around and sued everybody that was in the watershed to get them to the table. It didn't matter if they were irrigators or not, as long as they were in the drainage and homesteaded here, they were called to the table to justify their position. My ancestors were up on the old dry homestead at the time, and their names are in that document; they didn't have any irrigated ground, but they wanted to make sure everybody was informed of it. But at that time, nobody of the tribal interests were included, so the instream flow was “no you can dry the creek up, because we want to make sure all the irrigators are taken care of.” Since the class one right was at the bottom of the lowest ditch on the on the creek, everybody could irrigate as long as the class one was satisfied.

Beyond class one, it had to be any little seepage that maybe would have come back in to create a little riffle down the creek; it got pretty dry. I think we've really improved that. There are many reasons for that. Like I said, the late season water rights, some of the water put in trust, and the efficiency of our systems. Even on some of the drier years here recently, we've been able to keep a little bit of water going down the stream. You might talk to somebody and they say the Beaver Creek is dry at the lower end of the summer, but I haven't seen it for quite a few years. I think we've really improved that. I feel somewhat proud of that. It’s been a collective part on a lot of different folks. It's hard, like I said, we farm some ground that has the late season water taken off of it, so it makes us pay attention a little more and we do everything can to try to get water on it this time of year and keep that soil well hydrated.