

Tony Willardson: We have three great presentations. The first presentation is by Patrick Byorth. Patrick is with the Montana Water Project with Trout Unlimited. He is going to talk to us about Strategies for Managing Flows and Water Volumes.

Following Patrick, our next speaker will be Darion Mayhorn. He is with the Bureau of Reclamation, the Reclamation Drought Coordinator, and talking about putting the WaterSMART program to work.

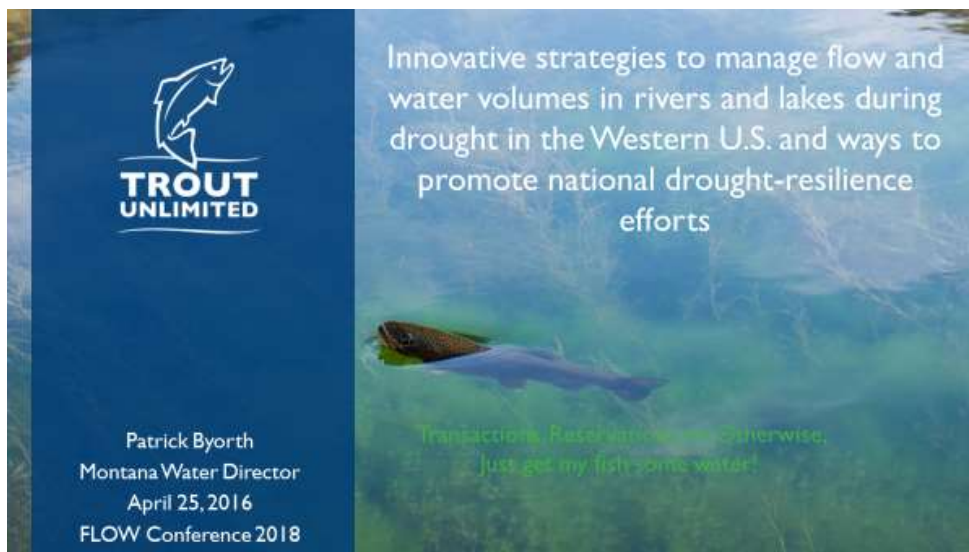
Then our final speaker this afternoon, Mindi Dalton, is with the US Geological Survey, and the acting coordinator of the Water Availability and Use Program, and will be talking about USGS Science and Information Support Related to Instream Flows.

So, with that we will get started with Patrick.

Patrick Byorth: So, is the mic picking up my voice okay? Not so much? How about now? We're good. I'll try and speak up, so I don't want to see anybody sleeping. If you start nodding off it's my own fault.

So, I work for Trout Unlimited. It's part of the Western Water Project, specifically the Montana Water Project is what I direct. What we're concerned with is kind of two things. They're catch 22, or they're completely tied together. The first is we go out and we work with watershed groups and agencies and other people across the West to actually do on the ground instream flow restoration. So, we're doing work on the ground, making partnerships with ranchers, water users, agencies, et cetera. But on the other hand, every time you try and deal with water you bump up against a policy limitation. So, you have to change the policy to make instream flow policy more fish friendly. So, that's what we're up against.

We have lawyers, biologists and engineers all working together. I just happen to be both. But, my colleague Laura, who founded the Water Project was supposed to give this presentation. So, the title on top, that's her title, a highly sophisticated title, and that's more like Laura, really intelligent and sophisticated. Laura was going to give this talk, but she was visiting Congress. She testified to Congress about some national drought resiliency efforts. Then on her first day back she went out for a ski and had an unfortunate interaction with a tree. So, she's laid up now, and so I'm doing the work. But, I'm more of a biologist than a lawyer, so I put a different title on there for you. I'm kind of more simple. I'm just saying whether it's transactions, or reservations, or otherwise, I just want the fish to have water.



So, I'm a little more simplistic. I'll try and meet Laura's abstract, but I'll apologize in advance. Really what I want to get out is kind of three key points. How do you keep water instream in the West?

Three Key points:



1. In over-appropriated, western states focus on water policy reforms allowing *water right transfers* within property right protections and the prior appropriation doctrine.
2. In Hawaii and Alaska, where waters are still lightly appropriated, the focus is on reserving water for instream and environmental flows. Other western state authorize reservations, as well.
3. Where instream transfers are not efficient or available, there are many drought management alternatives that keep streams wet and fisheries healthy, limited only by creative partnerships.

Well, we're transactional focused. We spent a lot of time over the last 20 years trying to reform instream flow in Montana so we could have some legal protection for water instream. We have to do that within the constraints of the constitution, right? Both the federal and Montana constitutions say water rights are constitutionally protected water rights. Then you layer on top of that the prior appropriation doctrine, "first in time, first in right." So, water transfers can be very successful. But, if that's all you can rely on, you'll see as I proceed through the talk, that's not generally going to be enough.

In other places, unlike Montana where they haven't fully allocated their water system or their waters, Hawaii and Alaska, actually are still in the process of reserving water. They can hold some back, as opposed to Montana trying to bring some back or claw some back. So, we'll talk about instream flow reservations.

Another tool, or not just another, but many other tools exist outside that statutory constraint. We've already heard about drought strategy planning. That's a tool. But, there's a lot of ways to do this without just leasing water, or doing statutory changes. I'd like to talk about a few examples of that as well.

Restoring Flows to Dry Streams: A Review of State Laws*



- Requires the ability to transfer a senior water right to an instream purpose.
- Different state-law authorities across the western states.
- Instream flow *transfers* are less relevant in Alaska and Hawaii, where focus is on reserving unallocated water



* Environmental Water Rights Transfers: A Review of State Laws <http://waterinthewest.stanford.edu/sites/default/files/WITW-WaterRightsLawReview/2015-FINAL.pdf>

Pacific Northwest has the greatest number of water right changes 4

So, earlier Andrew Purkey mentioned the Szeptycki Report, Environmental Flow Transfers. I'll base a lot of this on this document, but also another one that Laura Ziemer put together called How the West Is Won, which also builds on that and talks about limitations to legal systems across the United States, state by state survey. I can't do these justice in 20 minutes, but if you need a copy and you can't find them on Google, come and get me, and I'll send you a PDF of these.

I crossed out 10 and put in 11 tools, because I think water reservations is an important component of the flow transaction toolbox. For this section I want to talk about the flow transaction toolbox, but start by just taking an excerpt out of the Szeptycki Report. That shows the number of water transactions across the western United States. You'll see that Washington and Oregon peg off the charts. I'll explain maybe why that is. And that some states don't seem to have many transactions at all. Does that mean there is no instream flow program? Of course not. In Alaska and Hawaii again, they still have water that's unallocated, and they are in the process of reserving water.

So, I don't want to focus completely on water transactions at first. But, understand that the process of withholding or removing water from potential

allocation is probably the easiest, or not necessarily the easiest, but the most important drought strategy that we don't have the luxury of in most of the western United States and Canada, I'm sure.

Eight other western states have this ability to reserve water, including Montana. The problem with some of our western states and reserving water is we're reserving water that's already been allocated. In Montana we have these awesome water reservations instream flow. They are considerable, except they have a priority date of 1972, or 1983, or 1986. So, in Montana, like in the Gallatin Drainage ... I live in Bozeman ... if you don't have an 1880 or more senior, you don't even have a cup of coffee in August. So, here we have these water reservations that come 100 years too late.

Well, that's during the irrigation season. So, there is still hope, because after about October 15th after irrigation season, there is actually very little water appropriated. So, now our instream flow reservations go from being the most junior to among the most senior, and largest, so there is really good instream flow reservations during the winter. As a biologist I just kind of shrug that off, "Yeah, you know that's important." But, we didn't have any development pressures in the winter, but now we do. Lots of groundwater abstraction starting to affect instream flow. So, that's a big hammer to have that reservation, so I didn't want to skip over that. That's the eleventh tool that I talked about.

Protecting Flows in Wet Streams



- Water is over-allocated across the west; flow transfers are "buying back" water rights. Water reservations are also common, junior.
- Alaska and Hawaii enjoy unallocated water, are reserving water for environmental flows
- Eight western states also authorize instream reservations (OR, WA, CO, MT, ID, CA, WY, UT)



Let's just zip through these 10 kind of statutory tools in the instream flow toolbox real quick, and then we'll talk about who has what, and how that's manifested in actual transfers. First, the state has to recognize that instream flow, or environmental flows, are actually a beneficial use. That's important. Then is there explicit authority to transfer water rights between one beneficial use to another? And explicitly for environmental flows, can private parties hold instream flow? Montana Trout unlimited is probably holds as many instream

flow leases as any other entity, and we're not a state entity. Some states, instream flows can only be held by a state agency.

Ten Elements*



1.) State law recognition of recreation, or environmental purposes as beneficial uses?



2.) Transfers to instream or environmental uses allowed?



3.) Environmental transfers *explicitly* recognized by statute.



4.) Can private parties hold instream flow rights?

Are permanent transfers allowed? So, can you actually take a water right, a former irrigation right or otherwise right, can you transfer that to instream flow on a permanent basis? In Montana we have a very limited authority, and that authority might lapse in the next legislative session. So, that's an example of an ephemeral tool. It's similar to a reservation, but different.

Do you have a short-term lease in your toolbox? Can you just lease water for a short term, and then have an expedited process to get that water right instream, kind of as a drought response tool? Or one of the earlier speakers talked about short-term leases as the way to build credibility so you could do a test drive on an instream lease, with kind of a reluctant irrigator, and still get it instream. That's an important tool.

Are there limits on your environmental transfers? Do you have a conserved water statute? Where, if you have a leaky old ditch and put it in a pipeline to conserve those seepage losses, can you take that quantity of water, that flow rate or volume of water that was conserved, and can you put that to another use, like instream flow?



5.) Permanent transfers (reservations?) allowed?



6.) Short-term leases and some form of expedited review?



7.) Special limits on Environmental transfers?

Can you stack an instream flow beneficial purpose or environmental flow beneficial purpose on another beneficial use? So, for example, during a drought situation could an irrigator toggle from its beneficial use purpose of irrigation over to instream flow without causing adverse effect? That one is rare across the states in the 10 toolbox.

Finally, is there protection for short-term agreements or drought agreements against tolling abandonment or forfeiture statutes? So, you are probably all aware of this, but most states have a forfeiture or abandonment statute that says if you don't put your water to a beneficial use for a certain time period, the presumption is you have abandoned that property right. So, if you enter into a drought situation, especially what if it's a five year drought, and you agree as a water user or as an irrigator to forebear from irrigating to help out the stream, you might lose your water right altogether. So, in some cases there are actual statutes that say participation in that drought response precludes a finding of abandonment or forfeiture.

Ten Elements



8.) A conserved water statute?



9.) Can instream uses be "stacked"?



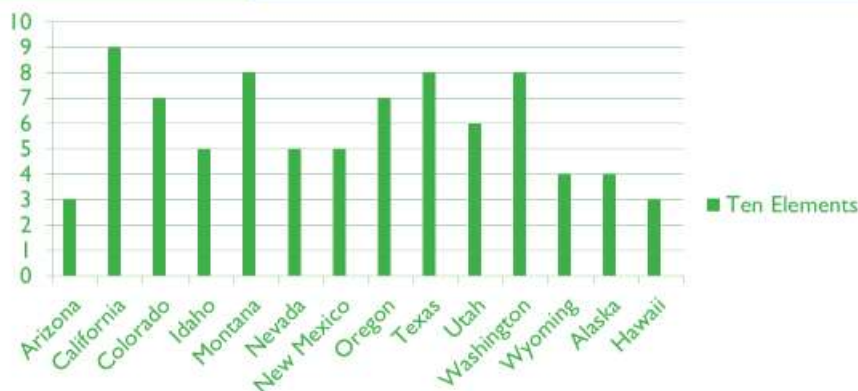
10.) Protection for informal short-term private transactions from any risk of forfeiture or abandonment.

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Let's compare really quickly state by state. Again, we can't go into great depth, but I think this is kind of interesting and kind of to the point we are trying to really get at about innovative drought strategies. You might have all the tools in the toolbox, like California. California has all, or nine of the 10 tools that I just described available to them, but they have very few transactions relative to other places. Then, on the other hand, you have Washington and Oregon that they are kind of in the top third in terms of their toolbox, but they have a huge amount of transactions. Again, Alaska and Hawaii don't have many transactions, but they have these other statutes like the reservation statute. Alaska also has another habitat protection statute, and I'll get the name wrong, but the Fish and Game can actually restrict an activity, bulldozing up, or mining, or putting in a culvert, if it affects stream flows. So, there's these other safeguards that don't really relate to water transaction tools.

Close-Up of the Instream Flow Toolbox

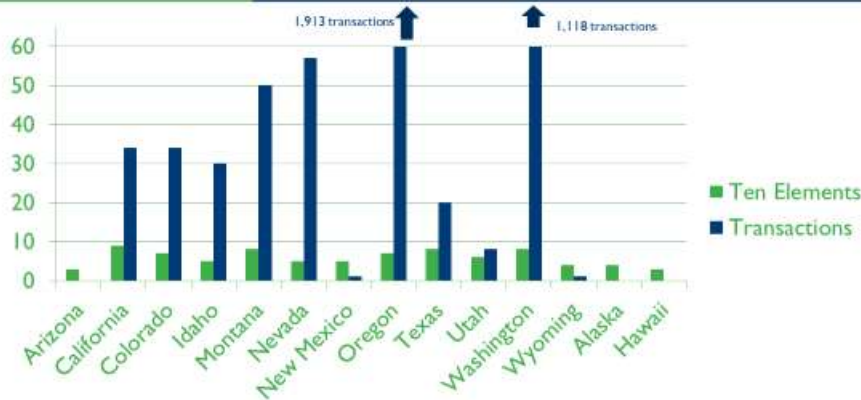


California has the most tools—Arizona the least

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If we look at the correlation ... and I've kind of lost my statistical talent since I went to the law ... but, it's pretty clear there's not a whole lot of correlation between the number of tools available and the number of transactions. Look at Washington and Oregon. Oregon has almost 2,000 transactions, this is up through '14, and Washington over 1,000 transactions. And yet their toolboxes are only six and seven. So, there is not a strong correlation. Well, what's going on? It's good to have statutory authority for sure, but there's more consideration out there.

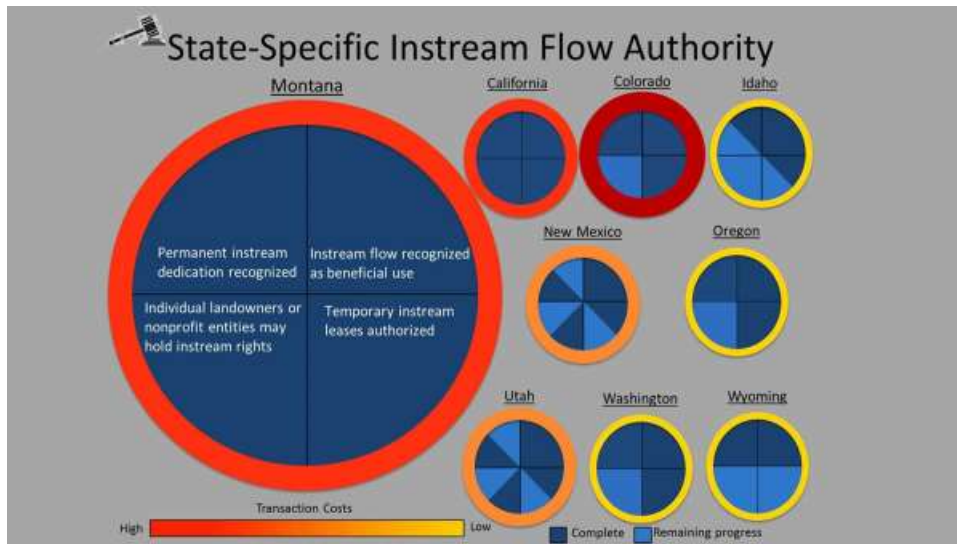
Relationship between Toolbox and Transactions



Pacific Coast leads the way

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The big one is the ring around the roses here. I'll just talk about four elements of an instream flow statute, and take those four and then wrap around them transaction costs. In Montana we have a fairly complete toolbox. And we have a decent number of environmental transfers. But, the big impediment turns out to be transaction costs, particularly in the way the administrative agency administers transfers. It makes it pretty difficult. You have to be very committed, and have some good funding behind you. That's even more pronounced in California, where nine of 10 in the toolbox, but they have 35 transactions by 2014, because their transaction costs are high. The risks to a water right owner is high entering an administrative process. There is a lot of scrutiny placed on that water right, and you make a lot of nervous neighbors.



Colorado transaction costs are the highest of all, because the water court administers water transfers. So, you can't just sit down with your hydrologist and go in with an application and say, "I'd like to transfer my water right." You have to take your lawyer to water court with you, along with a slew of experts, to prove there would not be an adverse impact on other water users. So, transaction costs actually are a bigger component of transactional success than whether your toolbox is full. Again, Washington and Oregon, Idaho, have agencies that are proactively engaged in making water instream flow transactions and grease the skids, even though their toolbox isn't maybe as complete.

4 Factors toward Successful Instream Flow Transactions



- 📌 Complete toolbox
- 📌 Administrative Culture: Facilitate or Obstruct?
- 📌 Building Trust and Expertise Takes Time
- 📌 Funding Partnerships are key to Success

So, what are the other components along with the statutory toolbox? Well, I don't mean to offend anybody from an administrative agency, but there seems to be kind of a dichotomy. I just mentioned administrative agencies that have a culture of facilitating ecological transfers or flow transfers. In other places, I

think obstruct is probably the wrong word and a strong word, but administrative agencies are adversarial toward transfers. That's our case in Montana, and not intentionally or ... that's why obstruct isn't the right word ... but very detail-oriented in slowing the transfers down. It's very expensive, and it's hard to get these transfers through. So, that's a big factor in that transaction cost.

The other thing that I think every state, and every province, and everybody here has mentioned in one way or another, it takes trust and expertise to enter into these transactions. Nobody could just pick up and walk in and knock on somebody's door and say, "Hey, can I buy your water right?" You have to do it one to one. You have to sit down at someone's kitchen table, and drink your coffee, and make your relationship so you can make a deal. That translates all the way up to the state level. In Oregon and Washington, the general public favors instream flow transactions. It's there in the funding mechanisms. It's there in the agency culture. And, it's there in the popular politics. So, you see they have lots of transactions, because there is money. There is agency support, and there is popular support along with the statutory toolbox. So, these are all the things that you can regulate. But again, they're not all about statutes.

What if the statute isn't the right route? You know as an attorney, that's your focus, right? You want to focus on the law, but really there's a lot of other opportunities out there that don't really require statutory help necessarily. Some of them do, some of them don't. So, I'll just talk about four quick projects, or four ways, approaches, to maybe restoring environmental flows that don't require some transaction, or at least one of them will be a transaction. I'll give you that. So again, Alaska and Hawaii have different ways. They're reserving water. They also have some habitat protection statutes that give them the authority to trump activities that might deplete stream flows.

Applications of tools



Alaska & Hawaii – not over-appropriated, but instream flow reservations in process

Wyoming - SCPP even though WY state doesn't authorize transfers for instream flows, this innovative program protects instream flow, with support of the state engineer waiving non-use

Montana – Sun River: changing reservoir management and carriage efficiencies restored flows even in drought years.

Montana: Big Creek: where 11 cfs instream lease has turned the tide for Yellowstone cutthroat trout.

In Wyoming I'll talk about the System Conservation Pilot Program, which you'll get a much better and all encompassing presentation tomorrow afternoon by

my colleague, Cory Toye. He's smarter and better looking. So, he'll give you the scoop on that. I'll just run by it. And then I'll also talk about Sun River, and hopefully feature the work that Laura Ziemer has done with WaterSMART and Bureau of Rec there in the center. Then I'll talk about a classic transaction and how that has worked on the ground for fish, because that's where I got my start.

Alaska and Hawaii – Reservations



- Alaska: reservations to date, about 156 instream and 1 (one) in-lake reservations
- Hawaii: interim flow standards in place, reserving environmental flows state-wide on 376 streams



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Alaska so far up to date has 156 reservations established for stream segments around the state. They have one in-lake level reservation established. I think there was something like 256, and I'm going to forget that number, that are in process. So, Alaska is really going after that instream flow reservation process.

Hawaii ... And Glen, I was hoping to get a chance to chat with you beforehand, so you could correct me when I'm wrong. In Hawaii they started out with an interim flow standard that created kind of a statewide flow standard for all streams. Then they are going in and doing more detailed analyses in watershed by watershed to establish instream flow rules. So, again, they are out ahead of the game. It's still a statutory thing, but it's not about transactional work. But, it's a good example of how you can reserve flows.

Conservation markets
securing the West's water future

Key features of SCPP:

- Baseline, benchmarks and robust pay-off for reducing consumptive demand through conservation practices such as switching to less water-intensive crops and reducing water application (partial season and drip irrigation). These methods provide alternatives to permanent "buy and dry" of agricultural water rights.
- Conserved water is sold in the volume to that state or province to benefit both water security and river health and habitat.
- The goal of the SCPP is to use mechanisms that use historic storage levels in Lake Powell and Mead, protecting hydroelectric capacity and addressing the risks of overconsumption in the basin. The long-term goal of SCPP is to **increase storage levels in Lake Powell** to protect against loss of hydroelectric capacity and ensure the Upper Basin can meet its obligations to the Lower Basin under the 1922 Colorado River Compact.
- In the Lower Colorado River Basin, which encompasses 16 counties in Utah, the primary objective is to ensure the protection of water rights in the basin. Mead to maintain hydroelectric generation and protect riparian wildlife habitat. The primary objective is to ensure water storage can be used to provide agricultural in the west.

SCPP in the Upper Basin

In 2015, 2016, the SCPP conserved approximately 15.2 billion gallons of water with about 10 projects.

Bought 15% of the water was conserved through temporary shifts in late season following harvest and before or after the peak but not all of the conserved water is production water.

In the 2015-2016 season, water users conserved 87 applications for SCPP projects with a potential 2016-2017 season. List of water savings in Wyoming area.

Who does SCPP benefit?

- Agriculture producers:** by providing income from temporary water transactions that can be used to invest in new and improved irrigation systems, reducing the volatility of agriculture over the future.
- Fish and wildlife:** by conserving water that maintains healthy flows and habitat as it moves downstream to storage reservoirs.
- Hydroelectricity:** by allowing top storage levels water supply in the Colorado Basin and ensuring hydroelectric production.

ROUND 3 (2015-2016)

17.5 million
The total volume of applications submitted

11.8 million
The amount conserved for trading

A number of applications did not get funded. The program needs expanded support.

CARSON CARAL, UT
owner of Caral and Caral Cattle Company, secured funding for irrigation water rights transactions in the 2015-2016 season that have conserved 1.2 billion gallons of water. Caral and Caral Cattle Company is one of the many producers who are helping to conserve water in the basin.

"Farming in the high desert is hard. It's important to find ways to conserve water and use it more efficiently. The SCPP program has been a great way to do that. It's helped us improve our irrigation systems and protect our water rights. We're proud to be part of the SCPP program and to help conserve water in the basin."

— CARSON CARAL, UT
owner of Caral and Caral Cattle Company

Again, I'm not an expert in this, but the System Conservation Pilot Project that happened in the Colorado River is an interstate effort to conserve stream flows across state boundaries. As you all know, the state statutes change from boundary to boundary. So, how do you deal with this conundrum, trying to deliver water more efficiently across this giant interstate basin, and actually international basin, because we're trying to push water down to the Sea of Cortez.

Well, at least on the Wyoming end, there is actually funding available for arm's length transactions, annual transactions in water, that go outside the change framework. Again, it takes administrative support, right? Because you're asking somebody, you're saying, "If you're willing to forego irrigation this year, we're willing to pay you 150 bucks an acre-foot to forego irrigation, so we can leave it in the stream."

- 29 applications submitted (28 TU)
- 29 applications tentatively approved
- 16,944.97 acres enrolled
- 16,714.88 AF conserved
- \$150.00/AF
- Total Cost: \$2,168,832.00

At the same time, there is the statute for non-use in Wyoming, I think starts to toll at five years. But the state engineer made the decision to allow people to participate in this drought response strategy without tolling abandonment. So, a small effort, or it's actually not a small effort. It's actually quite a large effort, but a small concession by the state really helps push this over the top. Cory, again will detail a lot of this, but, there was 29 transactions. They conserved over 16,000 acre-feet of water in that upper basin, sending it down from Wyoming into Utah, all without a traditional water right transfer, or water right transaction.

BUILDING TRUST WITH A SMART SOLUTION IN MONTANA
IMPROVING FORT SHAW IRRIGATION DISTRICT WATER EFFICIENCY

"Water is liquid gold," says Rich Boyko, Manager of the Fort Shaw Irrigation District in Montana. "It's a scarce resource we cannot live without, and we streamline our arrangements to protect it."

For years, chronic overwatering and sediment in the Sun River basin level adversely affected local irrigation and fisheries. An intensive riparian habitat project, implemented through taking positive steps to solve the basin's problems and created the Sun River Watershed Group. With funding from The Coca-Cola Company, the State of Montana, and Bureau of Reclamation's WatershedNet program, the Sun River Watershed Group's stakeholders, including the Fort Shaw Irrigation District and Trout Unlimited, worked together to successfully rebuild the district's aging irrigation system, increasing river flow and restoring wild trout habitat in the Sun River.

- A new bypass structure and 2,310 feet of PVC pipe for water delivery
- 2,000 feet of new lined canal and installing 3,500 feet of old, leaky ditch
- 8,185 acre-feet of conserved water, adding over 20 cubic feet per second (cfs) of flow to the downstream Sun River in the dry summer months
- 8.512 megatons (8.5 billion lbs) per year in Coca-Cola reusable benefits

Since project construction, the Sun River's wild trout population has more than doubled while irrigators have received reliable irrigation water delivery. The success of this smart solution lies with the teamwork and collaborative spirit of the Sun River watershed's stakeholders.

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The third case study I thought I'd bring up is the Sun River. The Sun River, and I realize this is probably invisible to you, but the Sun River drains what we call the Rocky Mountain Front in Montana, where the Rocky Mountains give way to the prairie. The Sun River drains the eastern half of the Bob Marshall Wilderness. Then right at the wilderness boundary, or close to it, is Gibson Reservoir. It's an

old Bureau of Reclamation facility that stores water and releases it into this intricate system of canals and sub-storage lakes and reservoirs, to irrigate a vast part of what we call the Fairfield Bench. There's two big irrigation districts out there.

Well, for years and years you know going back probably into the 30s or 40s, the two irrigation districts have fought. They have been fighting in the adjudication. They have been fighting over everything. Fighting for years and years. "We have senior water rights." "No, we do." And how much, and all this. Well, what happened up in the Sun River was Laura Ziemer started working with the local watershed group along and hand-in-hand with Bureau of Reclamation, to start breaking down some of those barriers and start thinking not necessarily in priorities and seniority, but think in terms of conservation and how we could actually make a difference.


They took two big steps. One is they started, thanks to a grant from Coca Cola and a WaterSMART grant, they started looking at reservoir operations. You know classically reservoir operations, at least in snow melt country, are, "Well, there's a lot of snow up there. We have got to dump water." So, we dump water in the wintertime, when it doesn't really do a whole lot of good environmentally. Then we wait and hope it fills up. When it fills up, then we dump water over the edge, you know over the dam, and let it go downstream.


Well, if you start calculating, thanks to tools from other agencies like SNOTEL sites, and using that data, you can actually calculate how much water is going to come into the basin, and allocate it as efficiently as possible, and actually use the water available when it's needed the most. The other aspect of that is there's miles, and miles, and miles of leaky canals going across some glacial till, and there's places that we're leaking 50% of the flow. So, they lined it with these Rhino liners and all kinds of things. So, they eliminated seepage loss.

They were able to take that seepage loss and leave it in the stream. No transaction. No change in water rights, but just conservation work. The result has been, in the bar graph that's tucked in the middle of the bottom there, you can see the trout population has doubled and tripled, just because even during drought years now, they can maintain that about 120 cfs, which is kind of the minimum flow where before you start to see biological consequences. Again, it's not a transactional thing, but it's that collaboration that's built across spectrum, from just the local watershed group, the ranchers working with irrigation districts, working with Bureau of Reclamation, working with Coca Cola, all trying to solve a problem, not within the constraints of some statutory framework.

Big Creek Monitoring

Year	Spawners	Redds	Fry
1988*	5 (season-long)	27 (all-season)	0
1989*		39 (all-season)	
1999**	57 (season-long)		3,429
2004	35 (one day)	142 (one day, near peak)	
2005		86	18,756
2015		105 (one day, post peak)	
2016	3	135 (one day, post spawning)	
2017	2	90 (one day, late post spawn)	Many on redds





Big Creek instream flow: 11 cfs left instream by collaborating with two ranchers, increases YCT fry production 18,000x

Then, okay, and, I'm wrapping up. This one I just think is always interesting. I use it all the time. It's because it was where I cut my teeth as a biologist, as a grad student I studied Big Creek. And for Big Creek, about 70 years a mile of Big Creek had gone dry every irrigation season, because the big diversion about a mile up split two different ways. That water would go across this glacial till and alluvium, and they'd have to take a lot of water out to get it to their fields.

Well, in '88 and '89, some bright people that had been working on instream flow issues in Montana, figured out that, "Well, we might just get an instream flow statute. We should line up a few streams." And, Big Creek was one of the streams. I just went out there, and I tried to trap all the fish, and then count all the fry, and count redds (spawning nests). The data from '88 is up there.

I caught five spawners, and I literally trapped the whole stream. They made 27 redds, but generated no fry. There was enough fry maybe trickling out in winter to retain a run, but the run was nonfunctional. By 1999, five years after a lease had been put in, the guys big leaky ditch was put into a pipe, and sprinkled out with pivots. We were able to save enough water to meet that 11 cfs minimum flow that I calculated just on the highly scientific basis of "when the redds go dry, that's the flow that you need." And it actually panned out to be 11 cfs.

We have been able to maintain that thanks to Fish, Wildlife and Parks through the years. Just because I keep coming back in different parts of my career to Big Creek, I've been tracking it. I count redds every year, just as recreation. You can see that every year there is somewhere between 90 and about 150 redds out there, where there used to be a handful. Our fry production probably varies, depending on your estimate, between 18,000 and 40,000 fry a year. It's had a significant impact on the trout populations, and on Yellowstone cutthroat trout populations in the Yellowstone River, a popular trout fishery.

So, this is an example of a transaction, at the time within constraints of the statute that worked, and it's still going. It looks like it will be renewed coming up in 2019. So, it runs the spectrum, right? The overall take home was supposed to be, you know, how does this fit into national drought strategies? Well, first, if you can do a transaction, you've built the relationships, you have a funding source, yeah, go for it. That's a great way to have ownership, literally give public ownership in that instream flow in a highly appropriated system.

If you've got water that's unallocated, and you have a mechanism, by all means reserve that water against future allotments, but, there's also other ways to do that. I think our next speaker is going to talk about the WaterSMART grant, and how important that's been to us and others around the country. I think in the end the take home is we've just got to keep doing it, whether or not you have the statutes behind you or not. So, thank you very much.