Nature’s Infrastructure Klamath Basin Part 1: Sprague River Collaborative Restoration S1:E3

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Hello everyone and welcome to the nature's infrastructure audio series, where we will be chatting with our partners, stakeholders and tribal communities to see firsthand how the Bipartisan Infrastructure Law is making a difference to communities and conservation nationwide. In November 2022, the Bipartisan Infrastructure Law was signed, providing the U.S. Fish and Wildlife Service $455 million in funding over five years to restore nature's infrastructure. In these two short years, the Service has been putting these dollars to work through projects, which are focused on climate resiliency, community partnerships, and restoring the ecosystems and habitat that are critical to the survival of the fish, wildlife, and plants we are interested to conserve. We are excited to share some of this important work with you as we discover new and exciting ways that these investments are helping protect, preserve, and promote nature's infrastructure.

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This month, we're focusing on the Klamath Basin with a two part series to discuss what's happening in both the upper and lower Klamath Basin areas. On today's episode, I'm sitting down with Brad Parrish, a water rights specialist with the Klamath tribes. And Larry Nicholson, the executive director of the Upper Klamath Basin Ag Collaborative, to talk about an important project which is happening in the Upper Klamath Basin in Oregon. Brad and Larry, thanks for joining us to talk about how the Bipartisan Infrastructure Law is helping promote collaboration and conservation in your communities.

Glad to be here, we've worked on this a long time. And it's kind of fun to be at this stage.

I'm also glad to be here gives the opportunity to give a tribal perspective to what's going on in the basin.

Brad, let's start by talking a little bit about your role with Klamath tribes. How does your work as a water rights specialist intersect with floodplain and ecosystem restoration? And why is this work important to you and your community.

So my work as a water right specialist entails monitoring and understanding the needs of waters within our treaty boundary area which have been upheld through various court cases. And adjudication, at least the first phase of adjudication, which involves 38 instream claims to water bodies, which include Upper Klamath Lake and the Klamath Marsh, and then 138, seeps and springs. So I've been doing that work for maybe six, seven years or so and came to the understanding that monitoring and understanding and regulation isn't going to get us to where we need to go. And it's been a huge push on my part to restore the ecosystem as a whole. Floodplain and ecosystem restoration are what I view as allowing for the Klamath tribes to meet those needs as far as the instream claims, but also, you know, given the possibility for our neighbors within the agricultural community, an opportunity to persist as well. So I've watched hydrographs increase during runoff periods to what I would consider erosive flows, and then decrease to extremes that have huge impacts on treaty resources. And why this work is

important is I think it's a community building effort that really is going to fulfill the needs of the tribe and also our neighbors and really respect the input even though sometimes I may not agree with all of the perspectives, it's important to the community.

So Larry Brad just referenced the agricultural community and as the executive director of the Upper Klamath Basin Ag Collaborative, your work focuses on ensuring the agricultural community can survive and thrive through agricultural resiliency. What is agricultural resiliency, and why is that important to the Upper Klamath Basin?

Well, Brad just mentioned it very well. I mean, the fact that we've been working on this a very long time, there's always been this friction between the Klamath tribes and the ag community. But you know, there's a point in time now, surface waters, cut offs were about six years ago. You know, we're at a point now, where you There's a lot of money coming in to the base. And we decided that this is a great opportunity to maybe take a different path. And so, you know, Brad mentioned, you know how important it was for the community for the tribes for agriculture. Well, that's exactly right. You know, we all live together in these communities. And collaboratively, we can find a way to to resolve these issues. The landowners own the property all the way up to the river. So it's been a struggle for restoration to try to figure out how to restore these rivers for the spawning suckerfish and potentially, the salmon that are going to become an upstream. So I talked a lot of landowners and landowners are not against restoration, they just want to get something for it. So there's an opportunity here, ag resiliency simply is survival. It's the ability for ag to, to survive through this whole process. And it's in the interest of everybody. So, you know, like I say, we all live in these communities together. And we're excited about the prospect of finding solutions and a pathway forward collaboratively.

One of the opportunities that Larry just mentioned comes in the form of projects that have been funded through the Bipartisan Infrastructure Law. One of these projects is the Sprague river collaborative restoration project, which received a total of $6 million. Through the Bipartisan Infrastructure Law, the project should provide in stream and floodplain restoration in the upper tributaries of the Sprague, design and development of restoration plans on the main stem sprag, and the development of ag resiliency tools to help landowners through the transition. So Brad, why don't you walk us through the floodplain restoration efforts in the upper tributaries of the Sprague.

I think we're addressing two parts to this, the upper tributaries, and then the main stem. And in the upper tributaries, there are what you would maybe consider small wetland type areas that should be acting as a sponge and storing that water and slowly releasing that water in the summertime. And in order to have a functioning ecosystem. That's how it should properly function. And if done properly, if these areas are identified, and the necessary work is completed, I think you're good then you're going to set yourself up for restoration that should occur in the main stem Sprague river system, which has been highly channelized. We don't allow for overbank flow into the majority of the areas or storage of any water. So all all of these things combined will address I think the two primary limiting factors for both our sucker recovery and reduction of salmon, which include both water and nutrients to Upper Klamath Lake water within the systems in the summertime when we need.

And Larry, you talked about the importance of this to landowners. This project also aims to develop a landowner incentive program to encourage landowner participation and restoration programs and retain economic viability for family farms and ranches. What does this mean? And what does this look like?

Well, you know, Brad just mentioned the storage of water in the ground for slower release in the summertime, which would benefit the C'waam and Koptu and salmon. Because ideally, it's during the spawning period when you need more water. And right now you get less water. It is just not enough water, cold water springs are important, trying to reactivate those. But, you know, I look for the commonalities here. There's a lot of common interests in doing this kind of a project in raising the shallow groundwater table. The river has is so degraded in so many areas, it's just dug a hole. I mean, in some places, the river is 10 12 feet below the ground level. That's basically where the water table is. So the whole concept here is it if we could put the river back on the landscape again and get it where you raise the shallow groundwater table that benefits everybody because look at all of that ground say you have five feet of ground that you've raised the water table up, that's a lot of water that's stored now for slower release later on. And that not only is it stored as cold, clean water, that benefits fish that benefits the in stream flow and all that but it also benefits agriculture because now we're putting that water up into the root system close to the root system or grass is going to grow longer. So even if you don't have water, you're going to have a better growing season. If you to rehabilitate the system, I live in Fort Klamath, Oregon. And, you know, we generally have a very high water table all the time. So even without water, our grass grows for a good portion of the summer. And the same thing could happen in the Spring Valley. So that's really what this is all about. So the viability aspect of this, you know, for family farms and whatnot, definitely has to do with raising the shallow groundwater table. Like I mentioned, the incentives that we're working on, will definitely help landowners survive.

And we're talking about the degraded river. Larry, as you just mentioned, as part of the Sprague river collaborative restoration project, approximately 26 miles of headwater streams in the Sprague River Watershed will be restored. What's the most impact that you foresee this type of restoration will have to the affected ecosystems,

The impact I see that restoration having on the ecosystem is what we've mentioned before you're storing that water and releasing it slower during the summertime when it's needed, and that's cold and clean water. So I see impacts to nutrients making it to Upper Klamath Lake in a reduction of those. It also creates connectivity between some of that habitat and the headwaters and the main stem that I think has been lost, especially in tributaries like the Sycan or South Forks, the biggest benefits I see are quality and quantity, making it down into the main stem and Upper Klamath Lake. And it's necessary to do that work associated with before going to do work on the main stem, it really drives what happens on the main stem higher flows. Higher run off events do a lot more scouring bank erosion that eventually ends up with an Upper Klamath Lake was, which is really the driver of water quality issues associated with algal blooms and Upper Klamath Lake. So a reduction of that has to start up in the tributaries. This is the first part of what eventually needs to happen. This is just addressing surface water and effects of that. But I also think there's a forestry component of it that needs to be addressed at some point in time that that could be just as big as addressing the surface water component of it.

And we've talked about this a little bit. Larry, I know that you have mentioned it. An important aspect of this project really is collaboration between the tribes landowners and federal, state and local conservation programs. In fact, recently, the Department of the Interior announced a historic agreement to advance collaborative efforts to restore the Klamath Basin ecosystem and improve water supply reliability for the upper basin ag community. Larry, can you speak a little bit to what collaborative conservation looks like and how the ag community is not only engaging with the U.S. Fish and Wildlife Service, but also with others to achieve your conservation and ag resiliency goals?

For so long. It's just been frustrating for the tribes and frustrating for any of the restoration folks to to do anything, because landowners, you know, own the property all the way up to the river. So you know, nothing was done. And it just during this whole time, I mean, the whole system's degrading, AG is suffering, nothing's happening. So the collaborative concept for us, the Ag collaborative in particular, was just an idea that if ag could put something together, we could possibly join and form a coalition of folks to solve all the problems. Collaboratively, we did just that we started a coalition, we started talking about all the issues, and we looked at it as a 50/50 proposition. This isn't just restoration. This is also ag resiliency, as a equal partner in this. And so as we go through goal two in particular, Brad mentioned goal one, 26 miles of the tributaries, goal two is designed development of a plan for the main stem spread. So as we go through this process, you know, we're looking property by property, how can we improve the conditions? How could we raise the shallow groundwater table? Reconnect it with the root systems? How can we make sure that there's enough wetland areas to filter the water for water quality aspects of it? How do we slow the river down in order to keep it cool and, and so there's more absorption all these things will be taken into account restoration wise, but also we're at the same time we're taking a look at the survivability of agriculture. So on each property you look at, how is this person going to be able to survive? If we do this, and so we're going to look at that for each and every piece of property. It's both restoration of the system, and the survivability of agriculture at the same time, equal partners. That's what got this going. That's, that's how we get engaged. What are the benefits to landowners to this, and there are many, you know, we kind of decided that, maybe, if we started working on the 90% of the things we agreed on, and not worry about the 10%, we could we could move things forward, and everybody would benefit. And that's kind of, you know, the attitude of the coalition. And, you know, that's where we want to go. I'm excited about, you know, the prospect of making this happen. And I know Brad is too. So each and every step of the process we have designed so we just don't do this in isolation. That's what collaboration is to, we're open about it. You know, as these plans are developed, we sit down you know, the Klamath tribes look at it. Restoration groups, Trout Unlimited, Klamath Watershed Partnership, climate, soil, and water. There are all involved in this. And we know we take a look at these as we go through, you know, this is a collaborative effort through and through, we've never done it like this before. And I'm not sure anything's ever like this has ever been done. It's just been wonderful to work with, you know, Adam Johnson, and the Klamath Falls office of Fish and Wildlife Service, you know, they've been so helpful in helping us get this set up and working through this process, and, you know, understanding how we might be able to move this thing forward. So we're excited about it. I can't wait to get things kicked off.

Larry, that's an important perspective that you just gave when you talked about the survivability of agriculture, and obviously restoring the Sprague river is of great importance to the species, which inhabit the waters and to the surrounding ecosystems and to the water quality. As we've already

discussed, we haven't touched as much on the impact to recreational access, job creation, sustenance, or cultural impacts. What's the importance of the Sprague river project to the people of the Klamath tribes,

The Sprague River has the most potential for change and therefore the most potential for restoration or impact to the species as a whole to the community as a whole. I guess there isn't, there aren't really that much recreational opportunities within the Sprague River itself, it's in really dire conditions. And I know Larry had the opportunity to float that, you know, I floated it, I've swam there, I understand where it's at. And as far as what it would mean to restore the Sprague River and the impacts that it could have. All I could say is, wow, if we complete this project, to the expectations that I have, it would be something to show, you know, showcase and, and say, Wow, what a joint effort. I also want to touch on just this collaborative in general, the Klamath tribes were stewards of the land and have been stewards of the land before any anybody else came here and view our neighbors, as you know, they're their neighbors, they're here, they're part of the community. But as far as restoration, and collaboration, I think it's it's a it's a, you know, partial fulfillment, at least, what we're accomplishing here of the trust obligations of the federal government and, and CO management of our treaty resources, and necessary, that's just partial fulfillment. I also feel that early mean, sustained engagement with these processes is necessary. So that allows for TEK and adaptive management and acknowledgement of what could be or should be here on the landscape. So it's extremely important to the Klamath tribes to be a part of this and continued in this process. Instead of going into this looking at what we can accomplish, or what we could get out of it. I think we've kind of taken a different approach and what can we accomplish together?

That's a great point, Brad. And that collaborative conservation piece is so important, especially to a project like this. The Sprague River collaborative restoration project emphasizes a commitment to voluntary approaches to ecosystem restoration and stresses the importance of supporting indigenous knowledge and sovereignty to landowners interested in rights, which we've talked about. So with the support of federal, state and other local conservation programs, Larry, what does this practically look like? And how would you define success?

You know, part of this, I feel like we've successfully taken the first step, because it's very, very important to the Klamath tribes, that they are a part of this restoration efforts, and that they're involved in the efforts like Brad was mentioning, and, and we recognize that. They recently passed an Ambodat policy, Brad's part of that department, Ambodat. It, basically, they would like to have a say and look at be part of any of the restoration is going on in there, or even their original tribal lands. We respect that. And we want to make sure that we work collaboratively. So to have the Klamath tribes have a say, in every aspect of this journey. That's what we plan to do. And I think, you know, Brad mentioned it, you know, we, it's important to them, and we understand that, and that's why this is working, we're gonna work together through this process, to make sure that we collaboratively move forward. You know, the tricky piece is getting landowners engaged in this, what's in it for them. And, you know, I think we have an opportunity now to find what we've called a toolbox of landowner incentives, if you will, to help landowners survive. And, you know, there are several things that we're working on, we've got these committees, subcommittees put together, you know, in one of them is called the Ag Resiliency Toolbox Committee. And these are all these programs that we could implement, that hadn't been done before in

the upper basin. There's one example I'll just give in Wyoming where they have what's called a wildlife corridor for elk. They pay landowners every year to maintain fencing and whatnot for elk friendly fencing, for passage. So, you know, I thought why can't that work for fish? Well, it can. So we're taking all these things like that. And there's many more, how do we compensate landowners for doing some of this stuff in we're looking at other compensation packages, you know, we're just scratching the surface of the kinds of things that we can do for agriculture. And we're excited about it. This is, like Brad mentioned a huge project, it's going to have tremendous benefit to the tribes to the landowners and to the community. And everybody, everybody else, it lives in the community. So we're excited about, you know, moving this thing forward and, and working hand in hand with the tribes and I'm confident this could go all the way. Are we going to have some landowner holdouts, probably. But if we can get scale on this, we can create a tremendously improved habitat tremendously improved system in the river and, and it's going to be a win win for everybody.

Collaboration really has been a key theme of this discussion. And you have both have mentioned the importance of focusing on things that we can work on together, collaboration on conservation and restoration projects doesn't always come easy. Why is it so important to collaborate with others, like Larry's group on restoration projects of this kind,

I think you hit the nail on the head with it doesn't always come easy. We don't always agree. For the Klamath tribes. It's important to collaborate on this because these are our treaty resources that that we're affecting, if we're all in the room, discussing how where, when, these projects are to occur. I'm confident we could we could come up with a solution to you know, address all of those concerns. But if anybody's left out, you know, then it's not a collaborative, truly a collaborative effort and how are you going to get support within the community? I think it takes all the partners within the community to have that support.

So in today's discussion, we've talked about treaty resources. Brad, you just mentioned that we've talked about collaboration. We've talked about the survivability of agriculture, project specifics, ecosystem restoration for the Sprague River. Larry, any additional thoughts that you'd like to leave us with?

Brad and I both mentioned that, you know, we're excited about the prospect of where this can go. Are there going to be bumps? Sure. That's okay. Because bumps are opportunities. And we're going to look at it from, from an opportunity standpoint all the way through this, we're going to continue to look for, you know, what kind of tools can we can we unveil to, to make this thing move forward. Right now we have a tremendous amount of support from the agencies, from NGOs, from other organizations. We are just all so excited about making this a reality. And I'm looking forward to moving this ahead.

Brad, how about you? Is there anything that we didn't cover in today's discussion that you'd like to make sure to mention?

I do think there, there are going to be issues that have to be ironed out as we move through this process. I do think this is likely the only path forward as far as ensuring our community stays whole. And it's necessary to address it in this manner. So I'm excited about it. I can't wait to look back on this

and in ten years and, and reflect on everything that occurred, honestly, thanks to the federal government for you know, looking at our little, what I view as the land, right. This has always been my homeland. I've lived in other locations for periods of time, but I have always wanted to come home. And I've seen a lot of things happen in other places and always wished for it here and we've never had that opportunity here. So to me, it's exciting. I look forward to looking back on this in 10 years and saying, Wow, we did what was right.

Thank you, Larry and Brad for taking time to sit and chat about the important work that's happening on the landscape and the impactful ways that the Bipartisan Infrastructure Law is making a difference in the upper Klamath Basin. And listeners, thank you for taking time with us to learn more about this significant project. This month. We've also posted Klamath Basin, part two, which explores another important infrastructure project in the Lower Klamath Basin that's promoting wetland conservation and resilient agriculture communities in the face of drought and climate change. So be sure to have a listen, and then tune in again on the first of every month as we continue to chat about ways the Bipartisan Infrastructure Law is investing in our communities to help protect, preserve and promote Nature's Infrastructure. We'll see you next time.