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FOOD SUMMIT
— DENVER, COLORADO —

Session title: Localized Solutions to global issues: San Luis Valley

Note Taker: Stephen Lauer

Main points of each panelist:

1. Facilitator: *Chris Lopez*
 1. *AlamosaCitizen.com*

2. Speaker 1: *Sen. Cleave Simpson*
 1. I'm the general manager of the Rio Grande Water Conservation District (1 of 4 in the state of Colorado). We were created independently by statute and are driven by compact compliance with downstream states.
 2. Water is the most important challenge for the State of Colorado. Out of 35 Senators, I'm reasonably confident that I'm the only one who owns a water right and uses it to produce food. I have 800 acres of alfalfa, which is one of the most water intensive crops out there.

3. Speaker 2: *Erin Nissen*
 1. I farm near Mosca in Subdistrict 1. We have some lower priority water rights out of the Prairie Ditch and San Luis Valley canal. Our main commodity crop grown is potatoes. We do a lot of multispecies cover cropping for soil health and feeding cattle. We also have some quinoa.
 2. We own 11 circles. On our farm, we moved from one cash crop (either potatoes or barley) per circle per year before 2002, to half one cash crop (potatoes) and half a second cash crop (barley) after 2002, to half cash crop (potatoes or something else – moved away from barley) and half cover crop in 2006, to one third one cash crop (potatoes), one third second cash crop (often quinoa), and one third cover crop 2014.
 3. Our farm uses 18-20" of water on a potato crop, water use depends on soil organic matter and some other factors.

4. Speaker 3: *Kelly Romero Heaney*
 1. I'm with the Colorado Water Conservation Board. I also serve as the special advisor to Governor Polis on water policy.
 2. Water is connected to everything in Colorado. My job is to cross pollinate across government agencies to manage water resources as efficiently and optimally as possible.
 3. CWCB oversees water supply planning and grant programs (we get at least a 3x return on investment through water grant programs due to cost share requirements), and provides support for watershed restoration and floodplain management. We're about to launch an update to the Colorado Water Plan.

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Key points of panel discussion:

Chris Lopez: Origins of this panel was an article in the *High Country News* a while back that highlighted water districts and subdistricts. “If the subdistricts are unable to reach sustainable levels of groundwater through voluntary programs, then the state engineer can come and impose constraints on the groundwater wells.”

Kelly Romero Heaney: One thing to keep in mind is all three of us here on the panel have the same goal to sustain farming and communities in the state of Colorado. And it’s weird that we’re talking about retiring groundwater and reducing water use and at the same time talking about saving ag. And we know that we have different hydrology with the new climate moving forward and we’ll have less water. And at times the state has to come in and be the bad guy and say I’m going to shut you down if you don’t comply, but he has to do that because we are required to meet our compacts with other states and if we don’t do that we could see basin level restrictions. And so the other side of our agency is trying to incentivize water retirement enough so that we can continue to have groundwater to farm.

Sen. Cleave Simpson: The Rio Grande Basin is over appropriated. The surface water system was over appropriated by 1900. My 1879 water right was out of priority by May of this year. In the 1950s with the electrification of the valley and vertical pump technology we realized we didn’t have to rely solely on the surface water for our crops and we tapped heavily into the aquifer but by 1970 the state realized we issued too many water permits for the aquifer because stream flows began declining. So from 1972 on we realized the surface and groundwater resources were over appropriated. So we operated on gentleman’s agreements for a while where we managed to pump groundwater in ways that weren’t overly harmful to higher priority surface water rights. Beginning with the severe drought in 2002 we saw a huge decline in the aquifer and producers in the SLV saw the state engineer shut off 7000 wells in South Platte region. We didn’t want that to happen to us so a group of producers came together. Subdistrict 1 began in the court system in 2009 and isn’t completely voluntary, but the other sub districts are voluntary. By statute, you have to get at least 51% of the land owned by 51% of the landowners within the district boundaries to sign a petition to start a subdistrict. Part of our motivation was that the state was coming with rules and regulations but also self preservation knowing that we’d go dry if we didn’t do something different. The subdistrict charges fees: admin fees, land acre fees, and fees for each acre food they pump. Our first year of operation was 2012. We have a court ordered decree that says we have twenty years to move aquifer level to at least 400 feet.

Chris Lopez: The SLV is not going to reach the court-imposed goal for aquifer levels because of several years of drought.

Erin Nissen: Subdistrict 1 was set up with the thought that you could economically drive effects. That should work, but it has not. A lot of us are making changes and cut back a lot but some

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others have not. It's hard to see some of the practices that some people are still doing. We have to stop pumping on a good chunk of land to meet the court ordered goal. It's hard. My family can and has cut back but some families have loans where they can't cut back or take land out of production.

Chris Lopez: I had a conversation with the Chief Engineer this summer and he said "my description of the state of the Rio Grande basin is rather good. A lot of users have responded to the regulations in the basin." And I bring that up because we hear a lot about the struggles in the SLV but we don't hear as much about the progress we've made.

Sen. Cleave Simpson: The structure is there for us to solve this problem. We have the representatives and the rules and the ability to assess fees. As Erin highlighted, the concept in the early 2000s was to sign up about 40,000 acres to sign up for the fallow program within the first 7 years of operation, and with the hydrology of the 20 years prior we'd get the problem solved in 20 years. But crop prices went much higher and there wasn't enough economic incentive for producers to fallow land. And also from my perspective this is a federal government program and it's a pain in the butt. They're just really hard to work with. For example, 2018 was the 4th driest year in the valley and the government said that there's a new farm bill coming out and they weren't accepting new enrollments even as people were pounding on our doors wanting to sign up. We've made tremendous efforts to reduce pumping from 350,000 acre feet to 250,000 acre feet. But this January 2022 was the lowest aquifer level ever to start the year because we just don't have the snowpack to recharge the aquifer.

Chris Lopez: In the state of Colorado, how do we balance the need for irrigated agriculture, water conservation, and growing populations, particularly on the front range where we are today?

Erin Nissen: Population growth is the hardest thing that the state needs to deal with. There are some benefits to population growth, but also some drawbacks. And of course I'm a farmer and I believe we should use water to produce food, but water has multiple uses. I do think lawns are not a priority, but I think community gardens are a good thing and if you want to take out your lawn and put in a garden I think that's a good thing.

Kelly Romero Heaney: We can't grow over the next 50 years the way we've grown over the past 50 years. But in our state, 90% of the water is used for agriculture. And that's not a criticism of agriculture, it just takes a lot of water to grow food. Seven percent is used in urban areas, and of that 4% is used indoors and a lot of that is recycled. So a next step is to look at the 3% that's outdoor use and how do we use less. How do we find homes for people to live in within our existing water supply and not start taking more and more water from ag? The reality is we may still need to buy water from ag but we can't do that the way we did in the 1970s where we just buy all the water and take the land out of production because that had devastating impacts on local communities and the environment particularly east of the Rockies. Remember this phrase:

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“we are going to Colorado-scape our urban landscapes”. There’s no reason we should all be having these expansive bluegrass lawns in this climate.

Sen. Cleave Simpson: A lot of what motivated me to run for office is that the way this state chooses to manage our water over the next 20 years could destroy the Colorado we know and love. In Crowley County there were 40,000 irrigated acres of sugar beets and orchards in the 1970s. But there were some economic challenges and a lot of outside interests involved and they sold their water to Aurora and Colorado Springs in the early 1980s. Now there are only 5000 irrigated acres there and their economic driver is private prisons.

Chris Lopez: Tell us about the Groundwater Compliance Fund.

Sen. Cleave Simpson: Inside the Rio Grande basin there’s about 500,000 acres under irrigation (surface, ground, combined) so I tell people if the next 20 years look like the last 20 years and we don’t do anything different, about 20% of the irrigated ground won’t have water. We can gain some by irrigation efficiency and there’s always a bit of technological improvement. You can gain some from other alternative crops that are lower water consumption. But ultimately there’s going to be less irrigated acres in the SLV. The state legislature put \$60 million into the Colorado Groundwater Compliance Fund to reduce our use of groundwater and it passed without any no votes. Now the hard part in the SLV basin is figuring out who can apply, how to access it, how to maneuver in this space to make it equitable and fair and get the most bang for your buck. So right now I’m having these discussions on how to move forward. And Subdistrict 1 set aside \$5 million to purchase wells using a reverse bid system. We purchased 13 water rights the first year and another 12 to 13 water rights again this year. We’re really interested in having that water right and often just retiring it. But that has impacts on a community reliant on agriculture. How do you take 20,000 acres out of production and not just have 20,000 acres of weeds? We’re working to allow some use of water to establish native plants on the land before shutting it off. But how do we do this without destroying our community and our way of life?

Chris Lopez: And I have to bring up Renewable Water Resources

Sen. Cleave Simpson: The SLV has long been identified as a magic source of water. Every decade since 1970 has seen some investor who wants to buy up and retire water rights on tens of thousands of ag acres and dry it up and pump it somewhere else. The Renewable Water Resource group is trying to use ARPA funding to pump 20,000 acre feet of water from the SLV to somewhere in Douglas county. So every time this comes up, we try to go through steps to make these types of efforts harder but without infringing on private property rights. There are a number of barriers that make it really hard for someone to do this but it’s still possible and a threat we live with every day is that someone might come and try to buy out the water that built our community.

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Question and Answer Summary:

No Q&A. Instead, participants split into small groups to discuss:

1. How does a community or region become more informed and engaged in conversations about water?
2. What is the reliability of the water source in your community? Do you know that? Do you know where you get water? And do you know how reliable that source is?
3. What people, organizations, or stakeholders need to be involved in these conversations?