



The Future of Landscape Conservation Forum on Investments in Science and Networks for Biodiversity, Climate, and Cultural Conservation Goals May 19, 2021

The Network for Landscape Conservation's ([NLC](#)) fourth virtual policy forum featured a diverse and distinguished speaker panel of conservation leaders and policy makers. The NLC partnered with the [California Landscape Stewardship Network](#) to host this national policy forum to highlight needed investments in science and collaboration. About 700 people registered for this event participating from an array of sectors and geographies of the US and Canada with some as far away as Kenya and Hawaii.

Watch [this virtual policy forum](#).



This conversation is timely. Science plus local and traditional knowledge must inform the ways we steward our nation's lands and waters and strengthen the role of networks as they foster collaborative decision-making at different scales. Our nation is grappling with emerging opportunities and approaches to conserve and steward our nation's lands and waters. Collaborative landscape conservation and stewardship is increasingly important as we work to address climate change, protect, and restore biodiversity, create a more just and inclusive conservation paradigm, conserve working lands, and rebuild our economy. The forum explored aspects of the 30x30 initiative, knowledge diversity, disciplinary diversity in the sciences, and the role of, and need for, collaborative networks to lead conservation efforts.

Event Objectives

- Provide a platform to discuss emerging science, traditional knowledges, and capacity needs necessary to address contemporary conservation challenges at local, regional, and national scales.
- Capitalize on the Biden administration's leadership and policy priorities for science-based, inclusive, and collaborative approaches to conserving our nation's lands and waters (such as the 30x30 initiative).
- Explore science and partnership capacity needs to improve how we support networks that facilitate action on shared priorities at local, state, regional, and national scales.

Welcome







Dr. Peter Williams, Chair of the NLC Science Working Group and member of NLC's Executive Committee, introduced the committee behind the Policy Forum Series held since July 2020. These have been important discussions about how we can improve our conservation efforts: intention, connection, how we see the role of humans as part of nature, setting the tone of inclusiveness, and accepting a shift in paradigms is needed. Williams painted a succinct picture of the topic today which includes what landscapes mean to us, the crucial role of our collective knowledge base informed by

many sciences and disciplines, and the key to any process – inviting early and often diverse perspectives from the affected communities.

Event Participants

Secretary Wade Crowfoot of the California Natural Resources Agency, offered a keynote address and moderated a panel discussion with the following panelists from all corners of our country:

-  **Jeff Allenby** – Director of Geospatial Technology, Center for Geospatial Solutions, Lincoln Institute of Land Policy
-  **Bray Beltrán** – Science Director, Heart of the Rockies Initiative
-  **Dr. Leroy Little Bear** – Blackfeet researcher, Professor Emeritus at University of Lethbridge, Kainai Nation
-  **Dr. Deb Rocque** – Assistant Director of the Science Applications Program, U.S. Fish and Wildlife Service

Keynote Address

Wade Crowfoot was appointed California’s Natural Resources Agency Secretary by Governor Gavin Newsom in January 2019 and oversees an agency of 19,000 employees who protect and manage California’s natural resources.



Crowfoot set the tone for our discussion with a quote from Charles Dickens’ Tale of Two Cities. “It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair.” What a fitting way to capture the challenges and opportunities of today.

Citing examples from his own state of California, Crowfoot acknowledged the cascading crises with one in twenty acres of California burned, temperatures over 120 degrees in Los Angeles, and the effects of a lengthening and significant drought. Crowfoot spoke of inequity, poverty, and racism laid bare across our country and world while we simultaneously come to terms with loss of biodiversity. Six out of 10 people in his state live in park-poor communities representing primarily minority populations. Biodiversity is under major threat in an age of mass extinction.

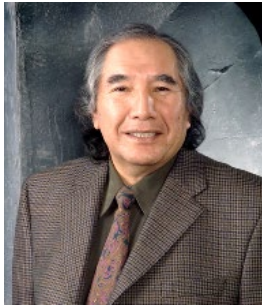
While the problems are daunting, he is optimistic we can meet these challenges if we take them head on with “nature as a key piece in the puzzle” in helping to save us from the climate crisis. He emphasized that 1/3 of climate mitigation actions are land and nature-based solutions that can protect communities and rebuild climate resilience. He acknowledged it will take creating stronger linkages between people and nature and environmental restoration that rebuilds ecosystem health.

He noted the imperative to scale actions while the stars are aligned to expand conservation, especially with 30x30. He said, “our work is key because we know we need different partnerships, new information, and synthesis of traditional wisdom and leadership combined with our knowledge bases.”

He concluded by saying, “We have a generational opportunity to harness the restorative power of nature” and that people and nature will benefit by embracing collaborative approaches to address inequity, habitat destruction, and climate change at this important inflection point in history.

Dr. Leroy Little Bear – Blackfoot Confederacy Researcher; Professor Emeritus, University of Lethbridge; Kainai First Nation, Alberta

Dr. Little Bear provided perspectives from his indigenous roots – the basis of traditional knowledge. His talk started with thoughts about dominant Western society. This prevailing thought does not “question the foundational basis of what we do. It is based on a stagnant world.” Compared with indigenous thinking, “his world is always in a state of flux. Nothing is stagnant. Everything is in relationships in a changing, inter-relational web of renewal.”



While we homo sapiens see ourselves at the top of the heap, our thinking is narrow. “We bring things down to one right answer, one right way of doing things. All of these paradigms are captured in our language which is very future oriented with ‘Been there, done that’ thinking.” With humans at the top, everything else appears inanimate and in isolation. This thinking causes us to approach issues through a lens of what “we DO to the land.” That gets us into trouble because “from the Blackfoot point of view, we have a RELATIONSHIP WITH the land.”

Little Bear illustrated how language influences the way we see the world and what we think is important. He said, “Blackfoot language is not noun-based. It’s all about process. These fundamental paradigms result in a very different approach to science.” Science today is all about measurement. “But in Blackfoot world, everything is about relationships. If you can’t measure it in Western science, it’s not scientific. A lot of science is about measurement. In Blackfoot world, if it isn’t about relationships, it’s not science.”

To open the aperture in our thinking away from one relying on measurement, Little Bear suggested we “go through a mid-life crisis exercise and ask fundamental questions of ‘Who am I’ and ‘What is life all about?’ The point is to stop, reflect, and question.” Many people agreed with framing our current situation and thought processes as a mid-life crisis requiring reflection on the meaning of life questions which distills this essential point of view on the challenges we face.

“Constructed environments arise out of our paradigms and social values. For example, we see every major river of the world being dammed. We have more domestic animals than there are wild animals in the world. We have concrete jungles.” The other side of the coin is a defense against the constructed environment, he said. He suggests that we have to change our fundamental thought process. We can begin with small steps to mitigate the constructed environment by bringing nature into our built environment with things like rooftop gardens and gardens inside shopping centers.

Bray Beltrán, Science Director, Heart of the Rockies Initiative, Idaho



Mr. Beltrán spoke about his personal experience of being an immigrant and a person of color in his position as Science Director for 315 million acres. He is developing partnerships to invest limited time and resources for the greatest good across millions of acres of public and private lands. His “newcomer status” requires that he work within the system while countering the colonial thinking which has been dominant and harmful.

These vast lands of the American West were seen as “uninhabited land to escape the cities.” However, some of the land in the West was not seen as worthy of conservation. He addressed a top-down conservation bias that doesn’t serve the communities where the decisions ought to be made. “We need to understand the historical context that has excluded indigenous thinking.”

He advised that we acknowledge that communities of color have a knowledge of their environment, their science, their stewardship, and practice. When we think of it in this way, we see how policy has been determined by people who don’t live there with solutions decided upon outside of the communities that are affected. He said, “In the name of objectivity, we often dismiss traditional knowledge with top-down

science and bottom-up action.” He emphasized a need for humility that doesn’t try to “replace indigenous knowledge with our own science.” This means inviting communities in “rather than thinking we need to solve issues for them.”

Beltrán recommended three actions. The first was to apply history in context of today’s issues. While conservation has positive connotations, it has had many negative effects on communities. The second recommendation was to incentivize knowledge creation coming from communities rather than feeding knowledge to them. Thirdly, “erase the predominant paradigm that some places aren’t worthy of saving and reclaim our relationship with the land.”

Beltrán’s deeply powerful comments illustrate the consequences of our separateness from nature. Colonial thinking has permeated our decision making, our exclusion of communities, and has promoted conservation practices that harmed communities.

As an example where conservation strategy is informed and shaped by communities that live there, Beltrán spoke about our government’s embrace of [30x30](#) and how we measure progress. He said, “Progress won’t be measuring acres; achieving 30x30 will be dependent on the quality of life of people. He warned that “if rural communities are not seeing the benefit of land conservation, we’ll continue to have push back.”

While 30x30 has already elicited concern that government will somehow dictate what local communities think and do, Beltrán called upon the President’s report, [Restoring America the Beautiful](#), that focuses on building “durable conservation in partnership with those that live and work on that land.” With politics as they are, he suggested that “political winds can change, and we need to do the footwork to lay a strong foundation for the future.”

Jeff Allenby – Director of Geospatial Technology, Center for Geospatial Solutions, Lincoln Institute of Land Policy



Providing a perspective on data and technology, Mr. Allenby focused on new ways to apply analytical technology to address public access and conservation challenges. To be successful, he echoed the importance of engaging all partners, non-traditional entities, and moving away from knowledge silos.

While technology and GIS have been intimidating and out of reach financially for many, the Center for Geospatial Solutions makes this technology accessible. The Center is the translator and allows more people to explore potential and possibilities in their conservation efforts. This large, network-based approach allows organizations to “hit above their weight class,” he said. Technology energizes and empowers grassroots community engagement and includes those previously left out of the conversation. Helping organizations tap into this technology and integrate it without requiring GIS skill equalizes access to the data and drives insights about what we pay attention to.

Allenby used the [Chesapeake Conservancy](#) as an example of a partnership that brought together 80 conservation partners across the watershed. Their model of participation and open access allowed the partnership to fit in a multitude of priorities and move forward on multi-benefit conservation. Another example was the [Open Space Institute](#) spearheading capital campaigns, land acquisitions, and park infrastructure projects. [Nature’s Network](#) focuses on connecting conserved lands and uniting stakeholders around common goals for sustaining natural and cultural resources. Finally, he noted the [Southeast Conservation Strategy](#) which also brings together diverse partners to accelerate conservation and a connected network of land where it makes the biggest impact.

Allenby pointed out the unrealized conservation potential of “interstitial land” and “habitat corridors” or undeveloped parcels of “in between lands.” Decision making could better connect this land to conserved lands. He said, “geospatial technology gives unprecedented access to parcel level data that can break down actions into parcel and sub-parcel-scale strategies.” Allenby is excited by the cumulative benefit of connecting these “in between lands” across landscapes.

He appreciates Little Bear’s perspective about measurement and acknowledges the world of funders that ask for metrics. The emotional appeal AND the measurement are both important in “building a narrative that helps organizations justify funding and helps local, small partners communicate the need.”

Allenby summarized that the information/insights connection is missed by many initiatives. We assume people will use it and integrate it, but if they can’t access it, then we need to fill that gap. It’s really about democratizing data and science as an empowerment tool.

Dr. Deborah Rocque, Assistant Director for Science Applications Program, U.S. Fish and Wildlife Service



Providing a perspective of agencies, Dr. Rocque looked back to lessons learned from the Landscape Conservation Cooperative networks and the efforts now to build in a more inclusive approach. The current administration’s leadership through federal agencies is key to creating a national conservation framework coordinated with local and regional networks for more inclusive community-based conservation. She sees the 30x30 initiative as a key way to magnify nature-based solutions within this national framework.

To take advantage of this generational moment, she highlighted the inspiring example of the [Southeast Conservation Adaptation Strategy](#) which is harnessing the collective action of fifteen southeastern states and Puerto Rico. Using geospatial data and analysis, they are creating the [Conservation Blueprint](#) which crosses jurisdictional boundaries and has brought in \$30+ million to restore over 75,000 acres. So far, more than 1,700 people from 500 different organizations have actively participated in developing the Southeast Blueprint. Over 240 people from more than 100 organizations have used or are using the Blueprint in their work. She suggests we do more to emulate this ‘living spatial planning model’ across the country and bridge the power of science and people. In order for conservation relationships to work, they need to be durable, nonpartisan, and consult people in communities to engage in ways they want to be involved.

Following Rocque’s talk, the conversation dove into the challenges of the united, national approach of 30x30 that tries to focus on community while taking cues from the federal government. In response, Rocque suggested we “get over ourselves and accept that there are a lot of ways to do conservation. It doesn’t have to be the “perfect” idea for conservation as long as it contributes to the whole.”

Participants in the virtual forum were quite interested in how local-level stakeholder and county government engagement worked with the Southeast Conservation Blueprint. The challenge is in balancing input from county government agencies and other local interests with broader priorities. If spatial mapping results are different than participants envisioned, then getting local buy-in could present challenges.

Key Takeaways

Williams tied the conversations together by saying, “It sounds simplistic, but starting with listening invites a learning orientation, facilitates relationship building, and begins to weave together the pieces that are needed for this generational moment.”

If we want to include a broader perspective of conservation as relational, then we need to look at language and integrate and translate oral histories alongside Western datasets. Sequential science can appear to be coming from an ivory tower, but a more relational and integrative approach respects communities, science, and traditional knowledge. Many participants expressed appreciation for Little Bear’s message about how language informs decisions. In this context, even the word “natural resource” is problematic and incomplete when it comes to describing connectedness to nature and landscapes we seek to protect.

Data applications, participatory GIS, mapping, and local and traditional knowledge when presented on a map can be critical to informing new insights. Coastal marine spatial planning tools are being used effectively across the coastal and marine landscapes.

In response to achieving a better balance, Beltrán suggests we “start with community and explore how science and skills can serve them. We must be comfortable stepping out to use our social capital and whatever privilege we have” to push initiatives forward.

Crowfoot acknowledged that “science is not neutral and has supported inequity. We can challenge our desire for specialization with a more holistic approach.” Little Bear suggested “we couldn’t ask for a better superstar on a professional team than the buffalo brought back into nature. And we can enlist the help of other species to address our challenges. The [Yellowstone National Park](#) bison transfer to tribal lands is an example of success in this approach. Furthermore, the [introduction of wolves into the park](#) have restored nature’s balance.

We need to lift these examples up and allow nature to help us. “We must recapture the dynamism of our relationship with nature” to counteract a world that is so engineered and separated from nature.

Ali Duvall, NLC Leadership and member of Science Working Group






This is a generational moment of opportunity. Our speakers have challenged us to build community networks and partnerships. Mr. Little Bear reminded us that everything is spirit and we’re all interrelated. The difference of our science and traditional ways of knowing need to be bridged and included. Bray Beltrán revealed our inherent biases around conservation being a positive without questioning the longstanding consequences of harm in the name of colonial conservation. Jeff Allenby spoke to the power of geospatial tech to break down traditional barriers to accessing powerful mapping and data applications. This data creates metrics to support our work. Deb Rocque illustrated a powerful blueprint for success and spoke to the power of listening to get beyond our confining paradigms.

If we could summarize in one statement, it would be to say that we are standing in the moment of shift where we are opening the aperture of our thinking and welcoming a mid-life crisis. We can demonstrate humility and continue to learn from examples and serve others by seeking to step out of our own mental models and open up to the activist within. We must re-evaluate our relationship with nature, get help from keystone species, and reconnect nature into our environment wherever we can in urban environments, open spaces, and in the places in between.

The scale of today’s environmental and social challenges requires us to seek new and integrated approaches to building networks across boundaries and sectors. These include employing new ways of thinking and working across sectors to create enabling conditions and frameworks to activate regional and state networks. Science-based tools, data, and traditional and local knowledge can effectively inform landscape-scale conservation, climate adaptation decision-making, and management actions. As leaders in this work, we can work together to achieve the goals outlined in the Biden Administration’s Restoring America the Beautiful to catalyze climate resiliency actions.

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NLC recognizes its 4,000 members and 250 organizational partners, and a cross sector and cross-geography leadership team of 30 nonprofit organizations, agencies, tribes, academic institutions, private natural resource-based companies, and more. For further information contact NLC Director, [Ernest Cook](#).

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