



Summer Waters is the third director of Western Lands and Communities—a joint program established in 2003 by the Lincoln Institute of Land Policy and the Sonoran Institute to inform policy related to the use of land and natural resources in the Intermountain West. Summer has a B.S. in biology from the University of South Florida and an M.S. in civil engineering, with concentrations in environmental and water resources engineering, from the University of Colorado at Boulder. Before joining the Sonoran Institute, she spent 15 years working in urban planning and natural resources for government entities including the University of Arizona Cooperative Extension and the County of San Diego, where she won an Emmy award for coproducing an educational video.

Shaping the Future of the American West

LAND LINES: What attracted you to the challenge of directing this joint program between the Lincoln Institute and the Sonoran Institute?

SUMMER WATERS: The chance to help shape the future of the American West. The Lincoln Institute of Land Policy is a thought leader in this realm, and the Sonoran Institute is well known throughout the region for its dedication to collaborative work with local communities and other organizations. Our shared mission is ambitious, but each organization has complementary attributes that make it successful. Our mutual, longstanding commitment gives the joint program depth and flexibility.

LL: Why is this job the right one at the right time for you?

SW: My interest in the natural world led me to study biology as an undergraduate, and my desire for a solutions-oriented career led me back to school for engineering. After graduation, I gravitated toward planning, because it allowed me to work with both the natural and built environments. After gaining professional experience, I began to recognize how the use of land, water, and energy interconnects with economics and community development. And I appreciated Western Lands and Communities' holistic approach to the challenges facing the region.

LL: Both the Lincoln Institute and the Sonoran Institute have recently undergone leadership changes. What challenges and opportunities does this transition afford you?

SW: Both Stephanie Sklar, the new CEO of the Sonoran Institute, and Lincoln Institute President and CEO George McCarthy are motivated leaders who inspire me personally and professionally. Stephanie is ambitiously embarking on a strategic planning process that will guide the Sonoran Institute through its 25th anniversary as an

organization. Her breadth and depth of knowledge inform the process and ensure that we both celebrate and evaluate our work. George McCarthy is a courageous and visionary leader guiding the Lincoln Institute through a similar transition. His appreciation for the West was obvious when he recently visited our Phoenix office. He comprehends the challenges we are facing and the importance of demonstration projects, such as our Colorado River Delta Restoration effort, in shaping the future of this region.

LL: How is Western Lands and Communities contributing to the Sonoran Institute's effort to restore the ecology and economy of the Colorado River Delta?

SW: Western Lands and Communities supports the implementation of Minute 319, the binational agreement between the United States and Mexico that guides the sharing and delivery of water on the Colorado River under the 1944 treaty through 2017. Perhaps the most significant event resulting from this agreement was the release of a "pulse flow" of 105,000 acre-feet of water into Mexico in the spring of 2014. This intervention was designed to mimic what would have been the Colorado River's natural flow cycles under spring conditions, when snowmelt from the mountains once ran through what is now seven U.S. states and two countries, ultimately to the Sea of Cortez. This historic effort breathed life into the desiccated delta, and in May 2014 the river reached the sea for the first time in years. In the spring of 2015, we will convene a group of NGO representatives, academic professionals, and agency scientists at the one-year anniversary of this event. Participants will discuss the impact of renewed flows on critical ecosystem functions in the region and evaluate the implications of this temporary agreement between the U.S. and Mexico. Through this process, we hope to inform future policies related to the allocation of this precious resource to the natural environment.

LL: I understand this project fits into your broader agenda to conserve large landscapes. Tell us more about that effort.

SW: Public land ownership in the Intermountain West is vast. At first glance, a map of the region depicts a disconnected pattern of various land agencies and managers with very different missions and approaches. Working lands and tribal lands further complicate that scenario. Landscape-scale conservation relies heavily on the full range of people who live within this picture; in order to avoid "random acts of conservation," and to achieve more coordinated and meaningful results, collaboration among public entities, individual land owners, and tribes is key. Fortunately, Westerners—regardless of political viewpoints, upbringing, or economic status—typically unite around a shared goal of preserving a way of life that is intertwined with the landscapes they inhabit. The way forward involves capitalizing on this shared vision, engaging communities in shaping their own future, and connecting practitioners with stakeholders in a meaningful manner.

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LL: How does Western Lands and Communities help communities respond better to the major challenges for the future of the Intermountain West?

SW: The West faces essentially the same challenges as other areas of the United States, but under a unique set of circumstances. We have a growing population, which triggers changing economies and demographics. Both urban and rural areas struggle to balance growth with natural resource protection. Given the sheer scale and grandeur of the natural environment in the West, it is easy to view our vast natural resources as infinite—a misperception that can lead to sprawl and other issues associated with natural resource extraction. Our expansive landscapes also create specific challenges related to transportation, which contributes

In March 2014, the Colorado River flowed from Lake Mead to the Sea of Cortez after a coordinated binational effort authorized the release of a “pulse flow.” Credit: Pete McBride



to climate change—a force that exacerbates all other problems. The joint program assists communities through the development of planning tools, webinars on smart growth and sustainable development topics, and compilations of successful case studies from communities across the West.

LL: Western Lands and Communities is engaged in exploratory scenario planning—a unique approach to long-range planning that explicitly challenges communities to evaluate their proposals against an uncertain future. How is exploratory scenario planning different from traditional planning, and how is it being applied in the West?

SW: Exploratory scenario planning is a process that encourages imagination in the planning process. Through the engagement of stakehold-

ers, community members, and experts, we develop a variety of plausible scenarios and acknowledge the complex forces, such as climate change, that could lead to a significantly different future. We help participants to view their particular issues in terms of the broader social, political, economic, and natural forces that shape communities in general. While some scenarios currently seem more probable or desirable than others, each receives equal consideration throughout the workshops. Most importantly, this process is more flexible, engaging, and dynamic than traditional planning, requiring participants to develop multiple strategies in response to a spectrum of future uncertainties. Western Lands and Communities has helped communities across the West apply this approach to General Plan updates, watershed plan development, and preparation for

the economic impacts of changing climate and weather conditions. Ultimately, exploratory scenario planning is designed to help communities adapt to change better by addressing complex issues that are embedded in great uncertainties. The foresight and strategies generated through this process prepare leaders to guide their communities toward a more sustainable future.

LL: What are the special challenges of planning for climate change in the Intermountain West and how have WLC's approaches recognized those issues?

SW: In the West, climate change affects ecosystems that are predominately arid and often exhibit high variability, compounding problems. In the past, we have built large reservoirs to cope with fluctuating water supplies due to cycles of drought. But that solution is no longer sufficient, as we are seeing droughts of unprecedented severity punctuated by extreme floods. Communities must now tackle issues that could once be left to the federal government. They must determine for themselves how to cope with diminishing water resources, increasing temperatures, migrating ecosystems, and extreme weather. The approach that Western Lands and Communities takes is to help communities identify priorities and develop policies to create resilience.

We have to be cognizant of the fact that neighboring communities can be very polarized when it comes to climate change. While some communities have embraced the reality of it, others hold onto a past way of life that is essential to the character of the region, yet leaves little room for adaptation. The West has large populations of American Indians and Latinos who are particularly vulnerable to climate change impacts. We recently began working with urban Latino communities in Arizona to address their disproportionate exposure to the effects of global warming. We do this by convening leaders, crafting messages that resonate with Latino communities, and working with organizations to train community

members to educate others on this topic. Every community is a little different, so we blend replicable methods with adaptive management.

LL: The scope of Western Lands and Communities' work has widened considerably since it started with an exclusive focus on the needs, challenges, and opportunities for state trust lands. What is the significance of that original mission and the resulting relationship, built over time, with state trust land managers?

SW: Historically, state trust lands have been poorly understood by the general public and natural resource professionals alike, particularly with respect to their fiduciary responsibilities. People rely on state trust lands for their livelihoods, as do children and young adults who need access to quality public education. Here in Arizona, we have seen unprecedented cuts to funding for public schools and universities in recent years. Our work has brought greater understanding of state trust lands as a source of funding for public schools and as natural systems with important biological functions that need to be protected. Mitigation banking and land exchanges help to integrate state trust lands into the broader context of large landscape conservation and sustainable development. But most state trust lands managers face regulatory challenges when they try to implement conservation practices. Reform is necessary to remove barriers that hinder implementation of the full array of practices that provide for both conservation and profit.

The economic and environmental benefits of state trust lands will continue to be significant. Ultimately, our commitment to western communities through our work with state trust lands will remain intact. Although the focus of the program may change as states encounter new and different challenges, the need to educate people about the state trust land mandate to create value for the trust beneficiaries will remain constant in the years to come. 📖