

FIELD NOTES

NEWS FROM WESTERN RESOURCE ADVOCATES

Driving State Action to Spring Ahead

07 Driving State Action:

Learn how we utilize four key stages of policymaking to achieve success and encourage change through action.

12 Making Every Drop of Water Count:

Discover WRA's role in developing legislation and conserving water in Western communities.

About the Artist

Lynne Hardy is a Diné artist based in Provo, Utah, and runs an online business called Ajoobaa'sani, selling products inspired by her culture. This illustration depicts an Indigenous woman enjoying nature, symbolizing Indigenous people's connection to the land. @ajoobaasani / ajoobaasani.com



Vijay capturing a beautiful view in Bergen, Norway, while on a hike in Seven Lakes, in Seven Hills City.



WHAT IS A REGIONAL ENERGY MARKET?

In the West, the energy market is composed of dozens of individual energy suppliers, all charging their own rates within their own states' laws and regulations. This reduces efficiency and innovation and increases costs to consumers because there is no market for competition, nor incentives to use assets efficiently and reduce costs.

Individual electric grids also face unprecedented challenges with heat waves, wildfires, drought, and other impacts of the changing climate.

These threats test the limits of our infrastructure, and we must adapt and innovate the power system to continue providing reliable and affordable electricity.

A regional energy grid is the most efficient, effective way to meet the increasing demand for reliable, affordable, and sustainable energy and will significantly reduce carbon emissions in the West. By creating a centralized entity that controls the flow of energy throughout the Western transmission grid, a regional energy market can integrate a broader mix of renewables and provide tangible economic benefits by allowing for the export of unused renewable power. For example, when a state produces more solar energy than it needs, it can easily be sold to other states at a set cost. And since solar and other renewable sources are less expensive to produce than electricity from fossil fuels, it's a win-win for consumers.

MEET OUR EXPERTS

WRA's Deputy Director of Regional Energy Markets Vijay Satyal

WRA's work to transition away from fossil fuels to 100% renewable energy involves many challenges, from working with legislators to enacting laws to testifying in rate cases and before regulatory agencies in each of our seven states. Our regional energy market work presents unique barriers and issues that span multiple states and dozens of independent energy grid operators across the West.

Leading these efforts is no simple task, but Vijay Satyal, Ph.D., grew up absorbing knowledge about electric grids and how transmission works from his father, who was deeply involved in the power sector. Growing up primarily in India with early childhood years in Africa and the Middle East, then living on both coasts of the U.S. and now in Utah, Satyal has seen firsthand the global impacts of climate change, how communities manage life in arid conditions, and the value of developing innovative technologies that are scalable and adaptable to population growth and dwindling natural resources.

These are exciting times for our region. For the first time in the West, there are competing regional energy market proposals that have the potential to pool dozens of utilities across multiple states into more coordinated markets. These proposals could improve the pricing of energy across the West, create more visibility into energy transactions, enhance reliability of our electric grid, and transition away from fossil fuel powered electricity to a clean energy based one.

None of this work has happened overnight, and Satyal and his team are part of the reason for the steadily growing success. WRA has been engaged in regional grid coordination efforts for more than two decades. The current team includes Sydney Welter, Ken Wilson, and Nancy Kelly, with the coordination and strategic oversight of Satyal. Since 2019, he has led WRA's regional markets efforts and now serves as the deputy director of our regional markets team. This complex work impacts the lives of millions

across the West by reducing carbon emissions on a larger scale and ensuring there is reliable power when consumers need it most. It also brings a host of disparate parties to the table: state legislatures, local governments, clean energy developers, federal and state regulatory agencies, and conservation partners.

As a recognized subject matter expert in energy, transmission, and regulatory policy analysis, Satyal is a man of near-constant motion. In 2021, he and WRA Energy Markets Policy Analyst Sydney Welter began a nine-state greenhouse gas-tracking listening tour that surveyed an array of players in the energy realm, including governors' offices, utility commissioners and staff, consumer advocates, and state departments of energy, environment, air, and natural resources. The goal was to understand perspectives and perceptions around the tools and processes for accurately measuring and reporting greenhouse gas emission reductions.

A regional energy market in the West is a critical step to enable decarbonization across the West with transparency and efficiency, improving the quality of life for millions. – Vijay Satyal

In February, Satyal and Welter presented their findings to more than 70 stakeholders from across 10 Western states, and later this year, the team will present a framework for all parties to improve greenhouse gas reporting. This work will facilitate greater visibility into clean energy deployed through wholesale markets, and will help decarbonize the grid with reliability, efficiency, fairness, and transparency.

Bringing so many state utilities and regulators into one regional market system is no small task. Unlike markets in the East, much of the West is a

patchwork of different utilities as operators with intra-state and interstate footprints, resulting in lack of unified energy market. This not only plays a role in the price of energy supplied to homes and industry, but the reliability of the grid as well.

Pulling from years of experience across the globe and expertise in the West, Satyal and WRA's regional markets team are making energy collaboration a reality and helping to build a system that will provide a flexible and reliable grid for 100% renewable energy for decades to come.



DONOR PROFILE

Collaborations Creating Change

Collaboration — the act of working jointly to produce or create something — is at the heart of everything WRA does. Collaborations with donors help propel significant state action, with a strong community behind every one of WRA's wins for the West. Individuals, families, foundations, and businesses trust us to deliver transformative impact that moves climate solutions forward.

Particularly fruitful collaborations come from our partnerships with business sponsors. Mission alignment and shared values with businesses of all sizes bring about meaningful investments to sustain the environment, economy, and people of the West. We are grateful for two such partners that demonstrate this potential — Aveda and Kind Design.

AVEDA

The well-known beauty brand Aveda has been a longstanding, invaluable partner to WRA. Their mission is to care for the world we live in, from the products they make to the ways in which they use business as a force for good. Committed to setting an example for environmental leadership and responsibility, Aveda maintains its status as a certified B Corp and holistically considers the impacts of their decisions.

One way they give back to the community is through an annual Aveda Earth Month in April. Aveda hair salons fundraise for local nonprofit partners that promote clean water. For over 15 years, WRA has been honored to be a beneficiary of Aveda Earth Month, which has raised over \$2.3 million to date to save water and protect rivers. Aveda's support, combined with that of other donors, has enabled WRA to safeguard four major rivers for wildlife and recreation: the Colorado, Dolores, Gunnison, and San Miguel. These protections positively impact tens of millions of Westerners who rely on water from these rivers for their lives, livelihoods, culture, and recreation.

Photo: The Aveda Institute Las Vegas puts on an annual catwalk for stylists who create runway looks using recycled materials to raise funds for WRA's clean water efforts.



“Altitude Salon chooses to partner with WRA because, as an Aveda salon, we care for the world we live in, and we want our actions to reflect our values. Partnering with WRA allows us to give back to a cause that affects our local community. We strive to make a difference every day through the services we offer, the products we sell, and the organizations we partner with.” — **Samantha Bush, Owner, Altitude Salon**

KIND DESIGN

What started as a small eco-minded business in Boulder, Colorado, created by outdoor enthusiasts Baz and Kristen Redd blossomed into a full-fledged clothing and design company. As one of WRA's official business sponsors, Kind Design is an incredible collaborator in the fight against climate change and its impacts across the West. The landscape-centric clothing and design brand generously donates \$2 from every product sold to WRA to preserve the West for future generations.

Over the last five years, the partnership with Kind Design has raised nearly \$10,000. This collaboration is creating a healthier West for all by working to conserve the resources that matter most — our land, air, and water. We can all appreciate the Kind Design motto of spreading a little kindness toward the earth and the people and creatures who call it home. WRA is honored to have such a committed sponsor — one that values our climate future and is actively part of the solution.

Photo: The Redd family goofing around in their favorite element — the outdoors. Kind Design apparel incorporates topo patterns of iconic Western rivers.



“When deciding to team up with an environmental nonprofit, WRA was an easy choice. Kind Design was founded with the intention to spread kindness toward the earth and others through clothing and design. Being a raft guide in the summers and ski patroller in the winters, I always wanted to help protect the amazing rivers and mountains I called home. WRA gets the job done where it has a lasting impact, achieving measurable results that are beyond impressive.”
— **Damon Baz Redd, Founder and Creative Director, Kind Design**

Collaborative efforts with business partners directly fuel WRA's tireless work to advance clean energy and protect air, land, water, and wildlife. Thanks to Aveda, Kind Design, and many other generous donors, our team of experts makes change possible and advocates for ambitious climate solutions.

Do you know of or have a business that shares our vision of a more hopeful future? Connect with Erika Stadsklev at erika.stadsklev@westernresources.org to learn more about how we can collaborate to create change together.



WHAT DOES IT MEAN TO

drive state action?

With the blooming of flowers and reemergence of wildlife, spring brings a sense of new beginnings and optimism. It has us relishing in puddles and the scent of fresh rain across the desert and high alpine. We're compelled to throw open our windows, clean out our closets, and plant our gardens with the dreams of fresh zucchini, squash, and tomatoes. And as we watch nature surge forth after winter, we're reminded of the power of persistence and our faith in our ability to change is revived.

And change we must.



As we find ourselves at a tipping point for people and nature, the next three years represent our greatest opportunity to sow the seeds of change. We must develop sound policy and drive decision makers to act immediately for our climate. Producing change at the scale and in the timeframe required to avoid catastrophe will require the actions of today being compounded with the actions of tomorrow. We must act now to have any hope of our solutions being implemented and getting results before we pass the tipping point of 1.5 degrees.

At WRA, we create transformational change by driving action at the state level to effectively address complex conservation problems in the West.

Driving state action is very much like planting a garden, requiring patience, care, and consistent attention. WRA develops science-based policies informed by diverse communities and stakeholders and then advocates and implements them to achieve measurable results whose impact will grow over time and across the region.

How do we drive state action? WRA engages in four key aspects of policymaking.



RESEARCH AND DEVELOP: WRA combines experience and expertise with research and science to develop policies, legislation, plans, regulations, and rules that address complex problems. Our regional approach integrates the distinct political and cultural landscape of each individual state and allows us to scale proven strategies, models, and solutions across the West.

WRA has worked for many years to block a proposed 140-mile-long pipeline that would pump 28 billion gallons of Colorado River water each year to southwestern Utah. Not only would the project be enormously expensive, it poses an unnecessary risk to Tribal and public lands and the health of the entire Colorado River. WRA experts **researched and developed an analysis to demonstrate that Utah could choose a more sustainable path and save its taxpayers money** by implementing local water conservation strategies, water reuse, and agricultural water transfers. Over many years, Utah has sought permits, but it has not successfully made its case for the pipeline. In fact, the Army Corps of Engineers told the state of Utah that it should consider WRA's Local Waters Alternative instead of the pipeline.

LISTEN AND COLLABORATE: WRA works to ensure all voices are heard where decisions are made. We actively partner with communities, Indigenous governments, advocacy groups, and coalitions to develop effective and equitable policies, galvanize support, and unify communities around the most impactful state action.

Environmental justice requires constant learning and **building strong and diverse coalitions in partnership with those most harmed by pollution and the climate crisis**. WRA collaborated with advocates from more than 100 organizations during the 2021 Colorado legislative session to pass the Environmental Justice Act. By creating enforceable pollution limits across three major sectors, the state can finally begin to address longstanding environmental inequities. The act also established an Environmental Justice Advisory Board that includes representatives from disproportionately impacted communities. Without the collaboration between advocates, especially those most impacted, Colorado would not have seen such an important step toward environmental justice.

ADVOCATE AND INFLUENCE: WRA advocates for the adoption of critical solutions where decisions are made in state and local government – in legislatures, governors' offices, agencies, commissions, city councils, and more. Leveraging our policy expertise in government affairs and communications, WRA works closely with decision makers to inform and enact ambitious policies. At the same time, we work to stop efforts that are environmentally harmful and impede climate progress.

Thanks to WRA's **advocacy and influence, the state legislature passed four important bills** in 2021 to help Coloradans cut energy waste and power their homes and businesses with clean electricity. WRA developed the initial drafts and concept for the Clean Heat Bill, which sets greenhouse gas reduction targets for gas distribution utilities in line with the state's climate goals. We partnered with the state energy office, conservation groups, and others to get this innovative legislation passed. Our experts testified in committee hearings, reviewed proposed amendments from lawmakers, and worked closely with legislators and their staffs to ensure the final policy would be effective and viable. We sent out action alerts to our supporters to encourage them to write emails to their legislators to influence them to vote yes. The first of its kind in the nation, the Clean Heat Standard is now the model that other states are using to advance measures that reduce emissions and advance building electrification, multiplying WRA's impact across the region.

IMPLEMENT AND MEASURE: Once a law, policy, plan, or rule is enacted, there is important and detailed work required to ensure its effective implementation. WRA works with lawmakers, agencies, utilities, and stakeholders to put laws and policies into action. We defend them in legal forums, assess and analyze their impact, and ensure they deliver their intended outcomes.

In 2019, WRA worked to pass New Mexico's landmark Energy Transition Act setting some of the strongest climate-action targets in the nation. Its **implementation has been a multi-year process, with WRA leading the way.** Last year, WRA filed a motion with the state's public regulatory commission to force Public Service Company of New Mexico (PNM) to implement key provisions of the act that protected ratepayers and provided economic development benefits to impacted communities. WRA presented economic and legal arguments to the commission in support of PNM's plan to retire the remaining units at the San Juan coal-fired power plant to ensure it was approved and the utility's goal to transition to clean energy was kept on track. As a result, the two units at the San Juan Generating Station closed in the fall of 2022, ratepayers saved an estimated \$134 million over the 2022-2023 period, and economic assistance to impacted communities was not delayed.

These four examples illustrate the remarkable progress WRA realizes by driving state action. Each represents a significant win for the state, and they also provide replicable models for the region and the country. Demonstrating success at state and regional levels also encourages action at the federal level. We know that changing federal administrations and congressional majorities continually swing the pendulum of federal action on protecting the environment. All the while, WRA's focus on state-based action steadily accomplishes durable environmental, conservation, and climate policy.

WRA will continue to sow seeds of change through these four stages of action, using a thoughtful and strategic approach at every step. We are proud of the significant achievements we've had shaping Western climate solutions over the last three decades. This spring, and in the seasons and years that follow, we hold fast to an optimistic future made possible by present-day collective action. It's time to prepare the soil for a new season of growth.

Together, we have what we need for all to flourish.



NEW SEASON, NEW HOST

In early 2023, WRA kicked off season two of our podcast with a new host: Multimedia Storyteller Jessi Janusee. At 2 Degrees Out West, we examine the complexities behind some of the most pressing conservation issues facing our region. We talk with issue experts, legislators, researchers, organizers, conservation advocates, and others to get the real story about what we can do to fight climate change and its impacts.



This new season includes episodes on conserving 300,000 acres and 120 miles of trails in Nevada's Black Rock Desert, solving air pollution in Las Vegas with emissions standards, protecting some of the country's most diverse landscapes and habitats with New Mexico's Land of Enchantment Legacy Fund, and an ode to why we all love the West. Recently, Janusee spoke with Tahlia Bear, WRA's Indigenous peoples engagement manager, about the Indigenous communities within the Interior West, Tribal sovereignty, and how these communities are tackling conservation, environmental justice, and climate change through entities such as

Tribal utilities. The podcast also features WRA's Deborah Kapiloff, transportation electrification policy analyst, about the nuances and complexities of public utility commissions, why it's important for us to work with them, and how they affect things like your electric bills and telephone lines.

You can follow along wherever you listen to your favorite podcasts. Make sure to subscribe so you don't miss any of our exciting upcoming conversations, from water rights with Crystal Tulley-Cordova, principal hydrologist for the Navajo Nation, to understanding what's going on with our energy bill prices, and more.



Krystyna Gonzalez is based in New Mexico, spending her time off from working as a licensed mental health therapist taking landscape photos like this one. She loves to capture the beauty of her home state and helping encourage individuals to explore. This photo was captured on the east side of the Organ Mountains-Desert Peaks National Monument. @justakrys



Making Every Drop of Water Count:

WRA is Advancing Waterwise Landscaping in Western Communities



While Western states are among the driest in the country, irrigated turf – think lush, green lawns – has been ubiquitous in many communities across the region, from front yards to sprawling office parks to roadway medians. Much of this grass is not used, but requires a large amount of water. In fact, outdoor landscape irrigation makes up

roughly half of urban water use in the West. Switching out unused turf for waterwise alternatives would save significant amounts of water and make communities more resilient to the impacts of climate change. This landscaping is beautiful as well as practical, using native plants and grasses to reflect the natural splendor of our region.

Driving Turf Replacement Policies at the Local and State Levels

In 2022, WRA helped develop legislation creating the first statewide turf replacement program in Colorado and advocated for a similar program in Utah. These voluntary programs will help ensure property owners in the state can access financial resources to help replace their lawns with drought-tolerant, sustainable alternatives.

We're also supporting municipalities, like the City of Aurora in Colorado, with implementation of effective local water-saving ordinances that meet their unique needs, such as restricting water-intensive lawns in new developments. This builds on WRA's years of work helping municipalities integrate water into land use planning, ensuring that growth and development are efficient and water-smart.

What's Next for Landscape Transformation in the West?

Western communities need to do more – and faster – to improve their water security through expanding turf replacement programs, limiting

unused turf in new developments, and promoting waterwise landscaping. WRA has been instrumental in supporting local governments by:

- Expanding additional local lawn replacement policies and programs while increasing funding for current statewide programs in Colorado and Utah.
- Partnering with municipalities to develop local ordinances and codes and improved land use and water planning to reduce non-functional turfgrass in new development and redevelopment.
- Partnering with water utilities to develop and expand grass replacement programs.
- Providing input on state water plans to make sure they include and prioritize grass replacement in urban conservation efforts.
- Encouraging more waterwise training and certification opportunities for landscape and irrigation professionals.

University of Northern Colorado Campus in Greeley, Colorado

The University of Northern Colorado is working with Greeley's Water Conservation team and WRA to develop a project to replace approximately five acres of non-functional turf grass on a parcel adjacent to the University Center. The current conceptual design – which included input from students – would replace existing turfgrass with low-water-use grasses and plantings, student art displays, walking paths, seating, and a hammock area. This landscape transformation pilot is part of a broader WRA project, supported by a grant from the Colorado Water Conservation Board, to enable the large-scale replacement of non-essential turf in the state. These kinds of large projects are important because they allow the benefits of turf replacement to scale up beyond individual homes and properties, saving significant amounts of water for communities.

Eagle County's Beyond Lawn Pilot Program

The Eagle River Watershed Council and Eagle County Conservation District are creating a new turf replacement pilot called the "Beyond Lawn" Water Efficient Landscape Conversion Program to reduce demand for landscape water in Eagle County. This program will offer incentives for property owners to replace irrigated turf, create examples of alternatives to high-water-use grass lawns, and develop educational resources for community members on how to convert and maintain waterwise landscaping. One of the program's goals is to offer avenues of participation for all community members rather than just wealthier homeowners. WRA is supporting the implementation of this program in several ways, including developing systems and processes, finding additional federal funding opportunities, and planning for a study to analyze water use and savings in Eagle County.

Waterwise Ordinance for New Development in Broomfield, Colorado

In addition to supporting the replacement of existing turf, WRA is working with communities to ensure that they can continue to thrive without putting in new unused high-water-use turfgrass from the start. Broomfield, Colorado, a fast-growing city between Boulder and Denver, is developing a new waterwise landscaping ordinance. Currently, between 60% and 70% of their annual water supply is used outdoors. WRA and our partners at WaterNow Alliance are helping draft a new code for the municipality to reduce outdoor water demand in new development and redevelopment. We will also support stakeholder outreach in Broomfield and work with the community through the adoption process this fall.

The West Needs a Waterwise Future

In addition to doubling down on grass replacement programs and policies across the West, important shifts are needed to ensure success. First, programs need more dedicated funding. Lawn replacement programs, particularly at the municipal level, are incredibly popular and often run out of funding. States, municipalities, and water utilities need to set aside adequate funds for these programs so anyone who is interested can participate and programs can scale to maximize their impact.

In the face of climate change and a growing population, communities across the West must do more to make every drop of water count. Swapping underutilized and high-water-use grass is a key part of the solution, with multiple benefits, from increasing water security and reducing water bills to supporting healthy, flowing rivers. Communities must prioritize creating and growing lawn replacement programs and limiting non-functional turf in new development in urban areas to improve their climate resilience and protect water users.

Implementing Direct Potable Reuse in Western Communities

Reusing water relieves critical pressure on our rivers, allowing increased water and flows for habitat and making them more resilient to climate change. Also, reuse is often more cost-effective than alternatives like building new reservoirs. As water purification technologies expand and improve, more communities around the West are pursuing reuse. One of WRA's most recent policy success stories is securing the acceptance and implementation of a regulation for purified wastewater that safely meets drinking water quality standards in Colorado and is the nation's first direct potable reuse regulation.

What is Direct Potable Reuse?

Direct potable reuse (DPR), recycled water treated for drinking, is a new water supply that is critical for maintaining a sustainable water future for our communities and ensuring healthy rivers. Purified water reuse is emerging as a significant and stable supply of water as communities seek to use their water supplies more effectively, using increasingly advanced technology. In DPR, wastewater is sent to community treatment plants where it is treated to be safe to discharge in the environment. Instead of being discharged, however, it is sent to another advanced treatment purification facility to be further treated to meet public health standards for consumption. DPR, differentiated from other types of reuse, is important for many reasons. Return water flows from indoor use can be reused again, and the water can be used anytime anywhere for anything as it's delivered through existing drinking water system infrastructure.

Policy Victory in Colorado

In fall 2022, the Colorado Water Quality Control Commission gave unanimous approval for a new rule that clears the way for direct potable reuse across the state. Colorado became the first state in the country to set up formal regulation for this type of water reuse. The approval was the culmination of seven years of diligent advocacy by WRA.

WRA helped lead the development of DPR in Colorado, securing more than \$525,000 in funding from numerous sources and managing three projects over the past seven years that paved the way, including engaging an independent panel of national experts to develop proposed guidelines for DPR in Colorado. Most recently, we helped secure funding and manage a robust Colorado Department of Public Health and Environment stakeholder process that led to rulemaking that was thorough, transparent, and inclusive.

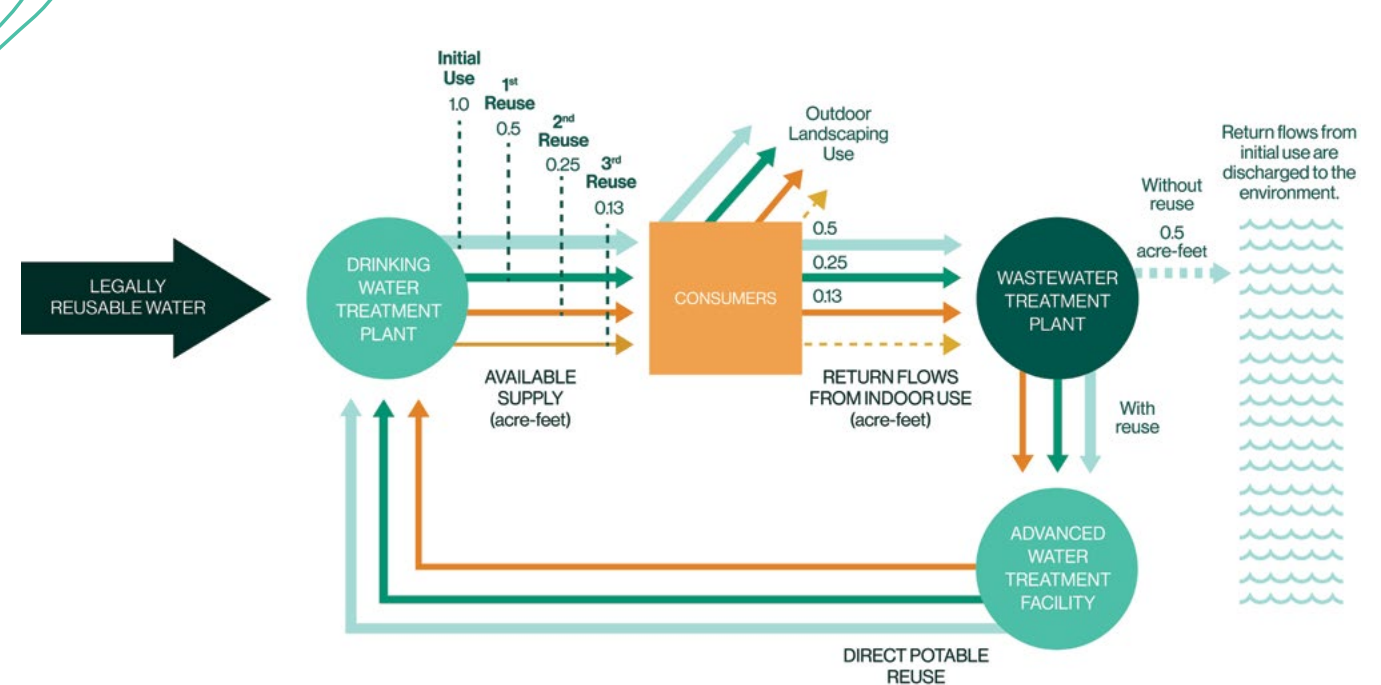


FIGURE 1: Example of how 1 acre-foot of water can meet roughly 2 acre-feet of municipal demands through direct potable reuse. Legally reusable water is treated and delivered to consumers with approximately 50% used outdoors and 50% used indoors. Water used indoors has return flows that are sent to a wastewater treatment plant. Then, rather than being discharged to a stream, in a direct potable reuse system, the treated water receives advanced treatment to purify it to ensure it can safely be used for drinking. That same initial volume of water can keep being reused several times to meet additional water needs.

Using less water will require ingenuity, creativity, and new systems like direct potable reuse.

Early in the process, we organized and assisted with numerous outreach events and presentations, including DPR beer tastings and tours of a pilot treatment plan to educate key decision makers. **In fact, the outreach and stakeholder input over the past seven years ensured that there was no opposition to the direct potable reuse rule, and that all parties, including WRA, were supportive, as were all public comments.**

Communities in Colorado that are evaluating their water supply needs can now take advantage of the new regulation and consider expanding their use of recycled water. In a system where acquiring new water sources grows more difficult, taking advantage of water already in the system becomes critical.

What's Next?

While the direct potable reuse regulations in Colorado are a major step, there is still

work to be done to encourage communities to implement the policy across the state. Water providers must show that they have the technical and financial resources to manage the treatment process, build up the necessary extensive filtration and purification systems, and collect a year's worth of wastewater to ensure each community's DPR treatment system is designed effectively. Municipalities will need to invest in significant public education and outreach – including fulfilling equity requirements within the new regulatory framework – to ensure that the public understands and supports proposed systems.

Using less water will require ingenuity, creativity, and new systems like direct potable reuse. WRA continues to work with partners, including other nonprofit and community organizations, water utilities, and state agencies, to ensure that state water quality regulations facilitate the expansion of direct potable reuse water so that our communities can thrive.

“WRA is extremely excited about the opportunity Colorado’s new DPR regulations provide as our state and communities look for new and innovative ways to ensure safe, high-quality, and sustainable drinking water supplies now and into the future. Getting here was a tremendous, multi-year effort by many organizations and individuals and we are thrilled to be seeing a lot of interest in the regulations by other states,” according to WRA’s Senior Water Resources Engineer and Policy Advisor Laura Belanger.



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FROM YOUR FIELD

The Orange Cliffs portion of Glen Canyon National Recreation Area in Utah is one of the most scenic areas of the Colorado Plateau region, as evidenced by this beautiful photo from longtime donor Steve Allen.

For more information about WRA or becoming a donor, please contact Annual Fund Specialist Erika Stadslev at erika.stadslev@westernresources.org or 720.763.3734.

WesternResourceAdvocates.org