

Summer 2020



A Watershed Moment

A NEWSLETTER OF WATERSHED MANAGEMENT GROUP

watershedmg.org 520-396-3266

What You Do Matters

What will be your Steward In Place story?

Inside

- Steward In Place Stories
- Your Steward In Place Bucket List
- How Rivers Connect Us
- Beaver Believer Michael Foster
- How to Build a Tippy Tap
- Cómo Construir un Tippy Tap

Board of Directors

Margot Garcia, President
Eva Marie Hube, Vice President
Ceanne Alvine, Treasurer
Judith LeFevre, Secretary
Dr. L. René Corrales
Brian Drummond
Bee Ottinger
Jennifer Psillas
John Shepard
Gordon Yarrington

Staff

Lisa Shipek, Executive Director
Dominick Abbott, Project Designer
Charlie Alcorn, Program Coordinator
Nicole Casebeer, Community
Restoration Program Manager
Trevor Hare, Restoration Director
Sky Jacobs, Administrator & IT
Manager
Chloe Loos, Communications &
Development Associate
Lauren Monheim, River Run Network
Program Coordinator
Joaquin Murrieta-Saldivar, Cultural
Ecologist
Lincoln Perino, Senior Green
Infrastructure Specialist
Madeline Ryder, Co-op Program
Manager
Catlow Shipek, Policy & Technical
Director
Harold Thomas, Associate Director

Newsletter Credits

Writing & Editing: Lisa Shipek, Chloe
Loos, Adrianna Nicolay, Paris
Stegall, Catlow Shipek

Spanish translation: Joaquin
Murrieta-Saldivar

Photos: WMG, Julius Schlosburg,
Martha Retallick, Adrianna
Nicolay, Paris Stegall

Graphic Design and Illustrations:
Dennis Caldwell

Front Cover: Rachel Romero helps plant a rain
garden at a Women, Trans, Femme (WTF)
Build Co-op Workshop.



Researchers found it takes an average of 66 days for people to form a new habit.¹

During this period when we are stripped down to our most basic needs, we are forced to deeply self-reflect. Do we spend time on activities that bring us joy, health, and long-term satisfaction? Without social connections, how connected are we to our environment? Our yard? Our neighborhood green space? Our local arroyo, creek, or river?

Just imagine if during this time we all make changes at home that have a positive impact on our personal health and our planet. With more time at home, we have fertile ground for forming new habits that stick.

What will be your Steward In Place Story?

Instead of being paralyzed by COVID-19, the WMG community has shown us their hunger for knowledge and passion to participate, so we quickly adapted many in-person events to a virtual format. Between April and July, WMG offered 33 virtual events with a whopping 1,182 participants!

What each of us does in our yard and neighborhood impacts our local creek, river, lake, or ocean as well as other living systems – our soil, plant, and animal communities. Let’s use that power for good to enhance our watersheds together and develop an intimate partnership with nature.

¹ Lally, Van Jaarsveld, Potts, & Wardle, 2010

Nichole Casebeer, WMG’s Community Restoration Program Manager, moves sand to create the foundation for a rain tank at a Co-op member’s home.

#StewardInPlace #RiverRunNetwork

We Your Stories!

You are proving the power of the River Run Network! Our dispersed events have been a huge success—members are getting out along their neighborhood streets and creeks to pick up trash and pull invasive plants, as well as building their own backyard basins and rain gardens. Between April and July, WMG offered 10 virtual events for our River Run Network, with over 640 people participating. Here's a sampling of some of our member's #StewardInPlace stories. Thanks for loving our watershed!

Keep sharing your stories with **#StewardInPlace** or email us at **RRN@watershedmg.org**.



Charlene Westgate: "One of numerous piles of buffelgrass from our pull this morning. Also gave us a good overview of what we're dealing with and to create a plan for the next few weeks."



Glenda Ledford: "Tilly is checking out the trash we collected on our morning plogging!"



David Rabb: "This morning I cleared the western facing slope of a small peak in Tucson Mountain Park. I worked from 5:45 to 9:30 AM."



Both the Drummond and Radomsky families participated in our Buffelgrass Pull Take Action Event!



Marlene Shamis: "Plogging, again!"



Kathy Balman: "We did go out but unfortunately, well maybe not unfortunately, didn't find any buffelgrass. But we did pick up trash - 3 lbs worth!"



Courtney King & Simrit Khalsa: "There were four of us that went to a tributary of the Rillito. I believe it's called Christopher Wash and we found it to be pretty clean, at least relative to the Rillito."



Gregory Mishaga: "I ended up with two large trash bags full of invasive weeds!"



Jeanette Hall: "Took Zoom class yesterday Steward In Place: Build Your Own Basin." Look at that before and after!



Christina Feliz: "Haven't been able to practice my trade for two months now, but that doesn't mean I can't learn a new one. We're working on digging rainwater basins before the monsoon season starts. Thank you to @watershed_mg for the education and inspiration."



Hilary Moses & Stephen Ambagis: "We were in the Rillito on River and La Canada, which is where we do our daily walk with our dogs and where we are always overwhelmed by the amount of trash and it feels like we can never get ahead of it."



Sara Birtalan: "We started removing arundo from around our favorite pond in Tanque Verde creek... we removed approximately a dozen small arundo sprouts and will return to clear what we can by hand. Also noticed a Hooker's evening primrose blooming."



Kyle Packer: "We picked up 3 bags of trash from the Arroyo Chico watershed and the Barrio San Antonio neighborhood until it got too rainy looking to be hanging out in a riverbed. We all had a great time, I even found a \$1 dollar bill, I'm rich!"



Jan Schwartz: "I found only a very small patch of buffelgrass on my neighbors 3 acres. I also walked some alleys, but didn't see any."

A close-up photograph of a person's legs and feet, wearing dark pants and sneakers, standing on a pile of brown soil. A shovel is stuck into the ground, with its blade partially buried. The background is blurred, showing more soil and some greenery.

Your Steward In Place Bucket List!

Ready to make all your Steward In Place dreams come true? Choose from this great line-up of virtual events to provide the resources and inspiration for your conservation bucket list.

Visit [Watershedmg.org/StewardInPlace](https://watershedmg.org/StewardInPlace).

1. Create A Rain Garden

Build Your Own Basin Virtual Workshop with Joaquin Murrieta
September 22: 5:30-6:30pm; Free River Run Network Event

Get the play-by-play on how to build your own rainwater harvesting basin at home.

Build Your Own Basin: Take Action!

September 26: All Day; River Run Network Event

Get your shovel out and build a basin in your yard any time on Saturday at this dispersed event across our watershed.

2. Grow Food with Harvested Water

How to Maintain and Prolong the Life of Your Rain Tank

August 27: 5-7pm; Free Virtual Field Studies

Got a tank or want a tank? Learn how to prolong its life to ensure you have a long-term source of renewable water for your garden.

Virtual Field Studies Class: How to Install a Laundry-to-Landscape Greywater System

September 29: 5-7pm; \$15 Virtual Field Studies

Learn how to install your own greywater Laundry-to-Landscape system, ideal for irrigating fruit trees!

3. Steward Your Streets

Steward Your Streets: Virtual Workshop with Catlow Shipek
August 28: 12-1pm; Free River Run Network Event

Learn about local efforts to transform your streets into shady green spaces designed for people, not just cars, as well as resources and tips to steward your own neighborhood street.

Steward Your Streets: Take Action!

August 29: All Day; River Run Network Event

Love your local watershed by picking up trash along your neighborhood street, alley, arroyo, or creek in this distributed clean-up effort.

4. Protect Your Creek

Rivers Reborn: The Story of Tucson's Rivers and our Future Legacy
September 8: 5-6:30pm; Free River Run Network Event

Help us build the collective memory of Tucson's creeks and rivers, then learn about our 50-year restoration vision and practical ways you can help get us there.

5. Nurture Your Backyard Ecology

Building Healthy Desert Soils

September 10: 5-7pm; \$15 Virtual Field Studies

Learn how to use typical household waste to build soil health and promote a productive urban landscape in your own yard!

New Staff & Summer Interns Bring Fresh Perspectives to WMG

Social distancing field trip! Interns join staff and Flow365 volunteers to check out rare groundwater supported flow along the Tanque Verde Creek at the end of June.



“I deeply resonate with WMG’s vision for global prosperity being predicated on the creation of mutually beneficial relationships between communities and their immediate surroundings.”

Dominick Abbott



WMG Welcomes New Staff

Dominick Abbott

Project Designer

“My background in architecture and sustainable design in arid regions helps me view rainwater harvesting through the lens of infrastructure, and the ways in which relationships can be established between the built and natural environment.

I deeply resonate with WMG’s vision for global prosperity being predicated on the creation of mutually beneficial relationships between communities and their immediate surroundings. Our organization’s mission of shifting our quasi-symbiotic relationship with the natural environment to one of mutualism, rather than parasitism, speaks directly to my principles and ideals as a designer and long-time Sonoran dweller.”

Chloe Loos

Communications and Development Associate

“Most of my work and educational experience has been in theatre and film, so it is fun using my skills to work on expanding our communications efforts through multimedia content, like videos. I think the fact that I don’t have that scientific background like many other staff members helps me determine what information to include in communications. It can be easy to forget that not everyone knows about groundwater infiltration or the ways beavers can restructure their environments.

Our values—especially that of hope—all relate to the way I try to live. It is so easy to become overwhelmed with fear when thinking about the future, especially the future in arid environments like ours. But there is always work to be done – together.”



WMG’s Summer Internship Program was crafted in May after seeing so many young people’s summer plans come crashing down due to COVID-19. While we have offered a schoolyear internship program with the University of Arizona since 2015, our nine-week summer internship was new. After a quick application process, we selected seven interns, and we’re thrilled to have such a vibrant and diverse cohort!



Andria Polk

River Restoration Intern

“I go to school in Massachusetts and this summer I wanted to get involved at home because I believe the most impact that can be made is started locally. I researched different organizations and WMG’s 50 year vision stood out to me. The most valuable aspect of the internship is the one-on-one site visits with Trevor Hare. He has a wealth of knowledge and I’m trying to learn as much as I can from him.”



Kayla Purigraski-Nardozzi

Community Green Infrastructure Design Intern

“Being an intern with WMG will help me build a greater understanding of the natural and social history of this watershed, as well as the ways in which we can work towards a future of flowing rivers, and equitable access to their life-bearing waters. My experience with PimaMaps and WMG’s Streamshed map has outlined the areas where environmental degradation meets social and economic shortcomings, and how the liberation of our rivers is directly woven into the liberation of marginalized people.”



Courtney King

Watershed Analyst Intern

“As a climate scientist, I studied the complicated nature of Earth’s past climate and the impact humans have had on the biosphere. I greatly enjoyed research but needed to find an organization that had a solutions-based approach to environmental impacts. In Tucson, that organization is WMG. There are two aspects of this internship that I value most: engaging with the WMG staff and participating in the Santa Cruz Watershed Collaborative (SCWC) planning process.”



Shawn Tarver

Zero Waste Coordinator Intern

“The most valuable aspect of the internship for me is being able to interact and know more people who work on sustainability and help me understand the importance of water conversation and how to be an advocate for the environment. What I hope to contribute through my internship is to help WMG have an established zero waste program and to turn that program into an educational tool to help teach the local community about the importance of zero waste management.”



Marina McCue

Zero Waste Coordinator Intern

“As a recent graduate looking to join the workforce in sustainability, this internship experience is invaluable to me. I am participating in this internship because I wanted to join WMG’s mission to help restore and preserve the welfare of our local community and environment.”

How Rivers Connect Us

Stories from WMG's River Run Network Interns



Adrianna Nicolay

As a Community Engagement Intern for WMG and a Master's student of Water, Society, and Policy at the University of Arizona, my passion for water management revolves around our capacity to restore and grow connections to water. In working toward conservation, recharging the aquifer, and restoring the Sonoran Desert, a focal issue is the loss of community memory around the heritage of Tucson's flowing streams. Relationships to water in Tucson have been severely disrupted and continually limited by extensive groundwater pumping, poor management, and development throughout the region. The loss of communal connections to water resources is violence with which I am familiar.

In August 2015, the Gold King Mine in Southern Colorado was breached, causing toxic waste to

rapidly enter the Animas watershed. My community of Shiprock on the Navajo Nation relies on the San Juan River, a tributary of the Animas, for maintaining agriculture and livestock. This event shook my community and ripple effects continue to be felt. It is only one of many issues Navajo people must navigate in our contemporary relation to water on our homeland.

The loss of community memory of flowing surface water in Tucson and the Gold King Mine Spill reveal that our relationship with water is one of the areas in which we can begin to build better worlds. We can see that the societal structures that encouraged groundwater overpumping and development in Tucson similarly enabled mining in the West and left mines and their waste abandoned.

Memory, water, and life have been taken from our communities. The River Run Network is showing that we can work to restore these connections in ways that return agency to communities, particularly in an urban environment. While there remains much work to be done, moving forward as a community points us toward a future built on kinship and solidarity.



Paris Stegall

In times of hardship and uncertainty, I've found it to be particularly valuable to look critically at myself and evaluate what truly motivates me. There are a number of reasons why I was interested in working for an organization like WMG, but my investment in the River Run Network's mission stems most strongly from some of my own experiences.

I realized during the course of my undergraduate career that I had a notable interest in water issues. This was fully solidified during my time studying abroad in Costa Rica. I got to see first-hand both the social and economic impacts of large-scale agricultural industries on rural communities. In the community where I was staying, the land was controlled by such an industry. The area by the river was covered by an expansive pineapple plantation, which was farmed by local villagers. A significant amount of their rivers' water was diverted for usage on the agricultural fields, leaving

the rivers with a lower flow than ever, particularly during the summer.

After living with and getting to know the rural community, it became abundantly clear how central the river was to their lives. This deep cultural connection is what we have the opportunity to bring back to our community.

In Tucson, the issue is not all that different, as our rivers have been depleted from excessive groundwater pumping for usage in the city. I believe restoring natural water flow has the potential to revitalize people's relationship with their natural environment. This could take place in many forms, such as cultural re-connection, utilization of natural resources, or merely a heightened appreciation of the abounding life that rivers bring.

I would like for nature to be a greater part of our urban landscape, rather than something seen as separate that you have to leave the city to experience. We can have a city with flourishing rivers that flow year-round, with lush vegetation and a thriving habitat for humans and animals alike. We can re-establish our rivers as an indispensable cultural resource, rather than merely a structural tool to control our water. If we shift our perceptions of what's possible for our cities, then our reality will follow our aspirations.

The San Juan River in Farmington, New Mexico supports family farms growing alfalfa, corn, squash, and melons for the community of Shiprock on the Navajo Nation.



Water from the Rio Convento in Longo Mai Costa Rica is diverted to irrigate industrial pineapple plantations, a major supplier of the world's pineapples.



Beaver Believer Michael Foster on the San Pedro Beavers

An original beaver believer, Michael Foster has been walking the San Pedro River for almost four decades and capturing video footage of the area, seasons, flora, and fauna nearly as long. With support from the Friends of the San Pedro and other organizations, he has clocked around 5,000 hours of work along its banks. Intimately acquainted with the area, he is also a veritable beaver expert. On May 14th, he joined Restoration Director Trevor Hare for a virtual

presentation to our River Run Network members to share his insight on beavers and the San Pedro. Check out some highlights!

Introduced in the San Pedro River by the Bureau of Land Management (BLM) in 1999, the beaver population thrived throughout the early 2000s. According to their formula, the 45-mile long river can support three beaver per mile for a maximum population of 135. **While the BLM has a rough idea of the beaver population, they don't always have the time to confirm the expected numbers. Volunteers, like Michael, take their own creek walks to record dams and help estimate the population.** The total number of beaver dams increased steadily from five in 2000 up to 39 in 2010, supporting an estimated 117

beavers! However, numbers have been dropping since with only three dams recorded last year.

Although we do not know for certain what happened, a few beavers appear to have left the San Pedro by making their way up to the headwaters, crossing dry land across Campini Mesa, and heading down into the Santa Cruz Watershed. Last summer, a beaver was captured a mile and a half away from the river in Benson during a flood event. Michael considers this proof that they are “tenacious and opportunistic creatures.” Some other factors that contribute to their smaller numbers may be drought, water pollution, disease, predation, and, sadly, hunters who consider beaver to be pests.

But beaver dams can do amazing things for our watershed. Michael notes that beavers often stay in areas where tributaries come into the main river and pile up gravel, so they already have a foundation to work with when building their dams, which they constantly add to. This helps raise groundwater locally throughout the area. Despite all their work, the San Pedro undergoes large enough flood events that wipe out the dams each year.

Getting up close and personal with our furry engineers has its benefits, and Michael has seen some interesting things. He once found evidence of beaver teeth

marks nine feet high in a tree. He has also seen them eat a variety of plants, including tamarisk and Bermuda grass! Beaver don't actually eat wood either—they eat the cambium layer, which is the soft tissue surrounding the wood—but will fell trees to access the more tender outer branches, buds, and leaves.

To ensure the beaver population thrives for years to come, Michael suggests the BLM introduce

more beaver and increase monitoring through the use of game cameras, more photography, and an annual survey in December. The AZ Game and Fish Department also recently took over hunting and trapping in the San Pedro Riparian National Conservation Area, and re-allowed beaver trapping, which is harming the already diminished population. Of course, improving surface flow, water quality, and the overall health of the watershed

will also help. Michael believes beavers are sustainable not only on the San Pedro River but also in the Santa Cruz watershed.

To check out Michael's footage, visit [Vimeo.com/SanPedroRiver](https://www.vimeo.com/SanPedroRiver). To stay updated on WMG's Release the Beavers campaign, visit [Watershedmg.org/Beavers](https://watershedmg.org/Beavers).



Sara Birtalan and Family Monitors Rare Flow Along Tanque Verde Creek

Perennial stretches along the Tanque Verde Creek may feel like a thing of the past, but new hope is surfacing and being recorded by our Flow365 monitors. In 2019, WMG staff heard from one of our project clients that there was an area near Wentworth Road that had flow for much of the year. Trevor Hare and Catlow Shipek visited that stretch in June 2019, the hottest, driest month of the year, and saw the creek flowing. They were thrilled to observe this flow in June because that meant the surface water was groundwater supported, and groundwater levels may be on an upward trend in that area!

But to prove our suspicions, we really needed to have regular flow observations along that stretch of the Tanque Verde. At the time, we did not have any Flow365 volunteers monitoring that site. Waiting in the wings was Sara Birtalan and her

family, recent newcomers to Tucson, who were just the people we were looking for.

Sara and her family first got involved in the River Run Network in the spring of 2019, attending WMG's annual Tanque Verde Flow and Feast. She then joined our Flow365 community science monitoring program later that year and shares, "I grew up exploring the creek in my Southern California backyard and want to share that type of experience with my children at the Tanque Verde Creek in our neighborhood."

In March, we asked Sara to start monitoring this particular stretch on the Tanque Verde, located not too far from her home. Sara and her kids walked along the creek daily to observe flow. What they found was flow abundance! "The flow continued through June, even when all other sections of the middle and lower Tanque Verde were dry." The last day of flow was recorded on July 9th. "In Flow365, we are part of a community of local waterway explorers and take advantage of WMG's knowledge about our watershed." Sara adds, "As citizen scientists, we contribute valuable surface water flow information to fill in missing parts of WMG's data set.



"With school shut down, social interactions canceled, and our whole family working at home every day, we found ourselves at the creek more often, which was a delightful source of natural activity into early summer. We spent hours watching dragonflies swoop over the water, fish dart in shallow pools, water beetles at work, busy birds, and coyote and bobcats that meandered through. The water flowing through the creek was a precious gift in a stressful time."

-Sara and Rosie Birtalan

Flow along the Tanque Verde Creek in Tucson is supported by winter rain, snow melt, and groundwater. Sara Birtalan recorded flow along this stretch starting in March and recorded the last day of flow July 9th, indicating the trend of rising groundwater and return of seasonal flows.



Co-op members help with a mini Co-op workshop at Martha Retallick's home. WMG is keeping work parties to five or less people, ensuring everyone's wearing a mask, bringing their own food and drink, and following our sanitation and social distancing guidelines. Mara Jameson and Marty Johnston cut pipe, and Sarah Shaffer (top right) installs the fitting that will connect the pipeline from the rain gutter to the cistern.



Co-op Adapts & Continues During COVID

Starting in March, many workshops were postponed due to COVID-19, however, we've been able to install projects through work completed entirely by staff. More recently, we've started offering mini Co-op workshops, led by a WMG project manager with no more than five people participating. These socially distant and sanitized projects offer more personalized learning opportunities for the homeowners and volunteers who need to earn Co-op hours. If you'd like to get started on your own project or have feedback on our Co-op services, please contact us at **Co-op@watershedmg.org**.

Tippy Taps

Provide Affordable Hand Washing Stations to Schools and Community Centers In Response to COVID-19

WMG has been promoting tippy taps and ecosanitation practices for over a decade internationally, starting with a program in India to provide school children access to handwashing facilities in areas without running water. In March, Tucson Ward 6 City Councilman Steve Kozachik contacted WMG to install tippy taps at homeless shelters and soup kitchens to serve Tucson's homeless population.

Brian Flagg at Casa Maria Soup Kitchen notes that “the homeless people that eat at the soup kitchen don't have places to wash their hands, and now they have a place to do so thanks to Watershed Management Group.” Flagg continues, “they are really easy to use and enhance the quality of life for people at the bottom.”

With their simple and affordable design, these low-tech handwashing stations improve sanitation by creating a contact-free way to wash hands and offer water savings. Thanks to funding from the Kaimas Foundation, WMG was able to construct, deliver, and install 60 tippy taps throughout the city to improve sanitation, including at K-12 schools planning to re-open their campuses.

Jenny Douglas, Director of Second Street Children's School, comments, “going indoors to wash hands is complicated with a group of young children and although hand sanitizer is helpful, we really prefer soap and water for washing hands.” She also lauds the educational element, stating “we are excited about using the tippy taps as a learning opportunity for the kids to learn about water conservation since we will be using the runoff gray water to water our trees on the playground, and up-cycling the water containers from their original purpose.”

Our partner organization, Caminos de Agua in Guanajuato, Mexico, put together an excellent video showcasing how tippy taps are becoming a great tool in their hygiene campaign to combat COVID-19. To check out that video as well as other bilingual resources and construction guides, visit [Watershedmg.org/TippyTaps](https://watershedmg.org/TippyTaps). Groups may request donated tippy taps or place orders for purchase on our website.



The tippy tap gets tested out after delivery to Second Street Children's School.

Los Tippy Taps

Proporcionan estaciones de lavamanos accesibles a escuelas y centros comunitarios en respuesta a COVID-19

WMG ha estado promoviendo los tippy taps y prácticas de ecosanidad por más de una década a nivel internacional, iniciando con un programa en India para proporcionar a los alumnos de escuelas acceso a lavamanos en áreas sin agua corriente. En marzo, el concejal de la Ciudad de Tucson Ward 6, Steve Kozachik, contactó a WMG para instalar tippy taps en los refugios para personas sin hogar y comedores comunitarios para servir a la población sin hogar de Tucson.

Brian Flagg en Casa Maria Soup Kitchen nos dice que “las personas sin hogar que comen en el comedor no tienen lugares para lavarse las manos, y ahora tienen un lugar para hacerlo gracias a Watershed Management Group.” Flagg continúa diciendo, “son realmente fáciles de usar y mejoran la calidad de vida de las personas en situaciones marginales.”

Con un diseño sencillo y accesible, estos lavamanos de eco-tecnología mejoran el saneamiento al crear una forma de cero-contacto para lavarse las manos y ofrecer ahorros de agua. Gracias a los fondos de la Fundación Kaimas, WMG pudo construir, entregar e instalar 60 tippy taps en toda la ciudad para mejorar el saneamiento, incluyendo a escuelas K-12 que planean reabrir sus campus.

Jenny Douglas, directora de Second Street Children's School, comenta que “ir adentro para lavarse las manos es complicado con un grupo de niños pequeños y aunque el desinfectante de manos es útil, realmente preferimos el jabón y el agua para lavarse las manos.” También celebra el componente educativo, afirmando que “estamos entusiasmados por usar los tippy taps como una oportunidad de aprendizaje para que los niños aprendan sobre la conservación del agua, ya que usaremos las aguas grises de escorrentía para regar nuestros árboles en el patio de recreo y el alto-reuso de los galones de agua de su propósito original.”

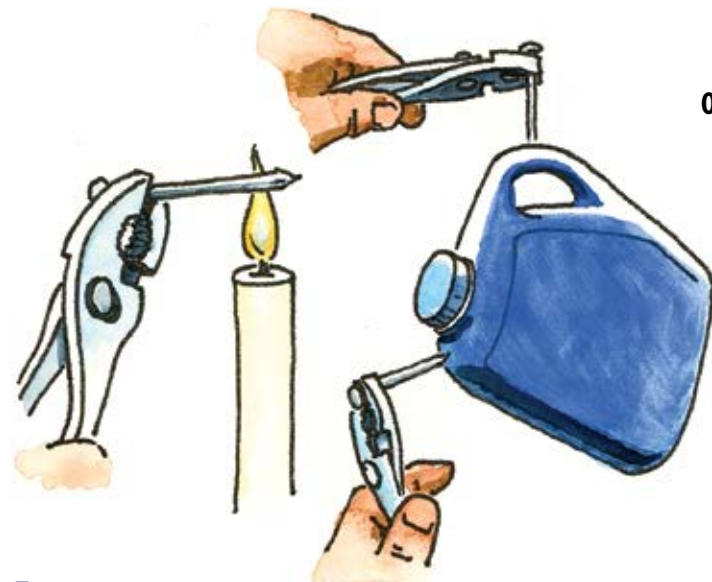
Nuestros asociados de, Caminos de Agua en Guanajuato, México, realizó un excelente video que muestra cómo los tippy taps se están convirtiendo en una gran herramienta en su campaña de higiene para combatir COVID-19. Para ver ese video, así como otros recursos bilingües y guías de construcción, visite [Watershedmg.org/TippyTaps](https://watershedmg.org/TippyTaps). Si les interesan, grupos pueden solicitar tippy taps donados o hacer pedidos de compra en nuestro sitio web.

Build your own TIPPY TAP



What you will need:

Plastic water container (repurpose a tea or juice jug)	2 forked sticks (4 feet each)	Mulch
Nail	2 straight sticks (3 feet)	Bar Soap
Candle and matches or lighter (to heat up the nail)	Shovel (and maybe a pick)	String
Pliers (to hold the hot nail)		



- 1 Heat the nail and melt 2 holes in the water container – one hole for the water to come out and one to relieve the pressure.

Oil bottom of sticks to prevent termites



- 2 Dig two holes 18 in deep and about 2 ft apart. Place the forked sticks in the holes and ensure they are level then fill holes and pack tightly.



Dig small basin and fill with mulch to absorb washwater.

- 3 Balance cross stick across forked sticks. Make a hole in the soap and tie to string. Fill container and hang both from cross stick.



- 4 Attach one end of string to water container lid and the other end to the foot lever stick. Adjust the length so container tips when foot stick is pressed.

Visit Watershedmg.org/TippyTaps for educational resources and construction guide for self-standing design.

Construye tu Tippy Tap



Que necesitas:

Recipiente reciclado de plástico (galón de te, jugo)	2 palos con horqueta o "Y" (1.2m c/u)	Acolchado o mulch
Un clavo	2 palos derechos (1m c/u)	Barra de jabón
Una vela o encendedor (para calentar el clavo)	Pala y pico	Cordón
Tenazas		



- 1 Caliente el clavo y haga dos hoyitos en el recipiente de agua – un hoyo donde sale el agua y el otro que le entre aire.

Échele aceite a los palos para evitar termitas



- 2 Escarbe dos hoyos mas o menos de 0.5m c/u y 60cm de separación. Entierre los dos palos de horqueta, asegure que estén nivelados, rellene de nuevo los hoyos.



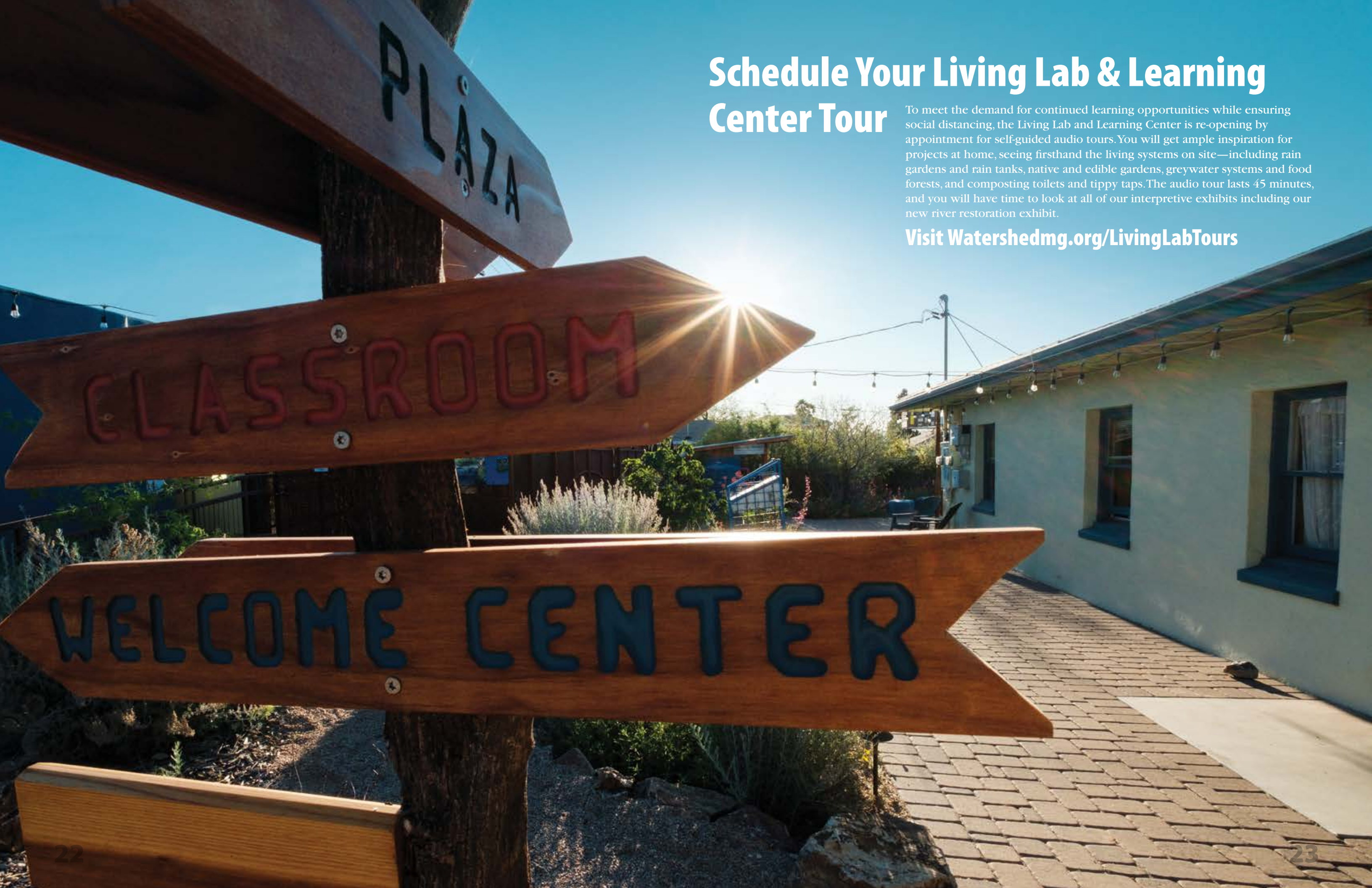
Escarbe una pequeña depresión y llene con el acolchado-mulch para que absorba el agua

- 3 Coloque el palo derecho en las horquetas. Haga un hoyo en el jabón y amárralo con un nudo abajo y al palo. Con la agarradera, coloque el recipiente en el palo y llene de agua.



- 4 Amarre el cordón abajito de la tapadera del recipiente y el otro extremo al final del palo-pedal. Ajuste lo largo del cordón para que el recipiente se incline y vierta agua cuando aplaste el palo-pedal.

Visite Watershedmg.org/TippyTaps para más recursos educativos y guías de construcción.



Schedule Your Living Lab & Learning Center Tour

To meet the demand for continued learning opportunities while ensuring social distancing, the Living Lab and Learning Center is re-opening by appointment for self-guided audio tours. You will get ample inspiration for projects at home, seeing firsthand the living systems on site—including rain gardens and rain tanks, native and edible gardens, greywater systems and food forests, and composting toilets and tippy taps. The audio tour lasts 45 minutes, and you will have time to look at all of our interpretive exhibits including our new river restoration exhibit.

Visit [Watershedmg.org/LivingLabTours](https://watershedmg.org/LivingLabTours)



1137 N Dodge Blvd
Tucson, AZ 85716

NON PROFIT ORG
U.S. POSTAGE
PAID
TUCSON, AZ
PERMIT NO. 3341

Monsoon Film Festival

Thursday, September 24, 2020, 6-9pm

Celebrating all things water and nature, join the WMG community at our virtual Monsoon Film Festival! From the comfort of your own couch, enjoy the screening of our favorite short videos submitted by our audience and the award-winning documentary, *The Beaver Believers*. But don't get too comfy, because we're counting on you to participate in our trivia games, live chat feed, voting on your favorite videos, and Q&A with *The Beaver Believers'* director. And we want to see your video submissions! With five exciting categories and prizes, now is your chance to share your stories about our watershed.

Visit Watershedmg.org/MonsoonFilmFestival for tickets and details on video submissions.

