FALL 2016

A WATERSHED MOMENT

A Newsletter of Watershed Management Group

Watershed Management Group
watershedmg.org
520-396-3266

Join the River Run Network Today

And Pledge to Restore the Flow!

It's here—a network for Tucsonans to join forces to restore our heritage of flowing rivers! WMG just launched the River Run Network, and everyone in the Tucson Basin can join! Go to Watershemg.org/RRN and join today by taking the pledge. Once you have taken the pledge, dive into all the detailed resources about our targeted restoration areas, flow budgets, and actions you can take at home. We'll be feeding new content and resources regularly to the River Run Network, including annual targets for restoring flow, maps of the latest restoration projects and priority actions, and opportunities to join hands-on workshops and become citizen scientists who monitor ground water levels and surface flow. Our work currently focuses on Sabino and Tanque Verde Creeks, along with our latest addition of Cienega Creek. As part of our 50 Year Program, we plan to expand to include the Pantano, Rillito, and the Santa Cruz River in the years to come!

What's Inside...

WMG interns and docents get refreshed with a field trip to Lower Sabino Creek, one of the River Run Network streamsheds!

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Dear Readers,

WMG launched the concept of hydro-regionalism in 2015 as part of our 50 Year Program to restore regular flow to Tucson's springs, creeks, and rivers. I'm thrilled to see the concept spread, and just a year later, it has been adopted by the Community Water Coalition (CWC[1]) as one of their policy platforms. WMG's Catlow Shipek led the development of the platform, with input from CWC's restoration committee including participants from the City of Tucson, Pima County, and Pima Association of Governments.

The platform is supported by a water budget that shows it's possible to meet the Tucson basin's water needs with local, renewable supplies if we continue on our trajectory of conservation and enhanced recharge. We've worked with several agency hydrologists on this water budget, and their general sentiment is: "It's crazy, but possible." We'll take it. And now we're shifting the dialogue to show that hydro-regionalism isn't crazy, but *visionary*. Instead of thinking in terms of water scarcity, we can shift our focus to creating and sustaining water abundance.

How will we achieve this visionary goal? This fall, we're officially launching our River Run Network, the culmination of our work to develop a restoration platform that engages the community in our 50 Year Program. The River Run Network consists of "Streamsheds," or distinct stretches of streams and adjacent land with similar characteristics and specific restoration goals. We're asking people to join the network by making a pledge and helping with priority actions at their homes and in their neighborhoods.

It's time for the grassroots to mobilize and create a paradigm shift in how we meet our communities' water supply and manage our water resources for long-term abundance.

Onward!

Lisa Shipek
Executive Director

[1] The CWC is made up of 20 social and environmental organizations and business members in Tucson Arizona. Learn more at communitywatercoalition.org.

Docents and interns enjoy the lush riparian habitat supported by Lower Sabino Creek.

American Rivers and WMG Team Up to Tackle Shortages on Colorado River

By Jeffrey Odefey
Director, Clean Water Supply Programs with American Rivers

For the past three years, American Rivers has been excited to partner with WMG on projects in Sabino Creek, Tanque Verde, and now, the River Run Network. These programs do far more than restore Tucson's historic watersheds. They're inspiring models for community water resiliency in an era of increasing water scarcity in the Southwest. It's hard to go a day without reading about how drought, climate change, and overuse are leading to shortages in Colorado River water supplies. While these shortages are unlikely to affect Tucson in the near term, they will fall heavily on other Arizona water users.

WMG's local projects—flow budgets, rainwater harvesting, conservation, restoration, and green infrastructure—help to build flexibility in the way Tucson manages its full water portfolio. Tucson benefits and is better able to contribute to statewide efforts to reduce the impacts of Colorado River shortages. American Rivers strives to translate WMG's local vision and leadership into improved water management throughout the seven-state Colorado River Basin. At both levels—local and regional—we're advancing a vision of reciprocity with our rivers: caring for them so they can continue to care for us.

COMMUNITY WATER COALITION'S HYDRO-REGIONAL POLICY PLATFORM

SHIFTING TO LOCAL, RENEWABLE WATER SUPPLIES TO MEET ENVIRONMENTAL AND COMMUNITY NEEDS

As water availability in the West becomes increasingly uncertain, the time is right for Tucson to develop and implement a local, holistic plan to ensure sustainable water supplies for our region. **Hydro-regionalism refers to the principle and practice of meeting local water needs with renewable supplies from the local watershed.**[2] With an established vision, cooperative coordination, and integrated management and policies, our region can balance water demand with local supply instead of relying on the resources of another region to meet our needs. Water policy should be firmly rooted in this hydro-regional concept and focus on local augmentation strategies in order to ensure a sustainable water supply and high quality of life for Tucson residents into the future.

Most of Tucson's municipal water is imported from the distant Colorado River, more than 300 miles away, which has been facing drought conditions and a 'structural deficit' (more water is diverted than comes into the river each year) since 2003. The remaining supply comes primarily from locally-pumped groundwater. Both of these sources are problematic: importing water is energy-intensive, costly, and increasingly unreliable, while over-pumping of groundwater has depleted our aquifers and dried up our springs, creeks and rivers. The current water supply system operates under a 'scarcity' framework that detrimentally impacts residents' quality of life by degrading riparian and aquatic systems that are critical to community and environmental health.

However, with a paradigm shift in how we value, manage, and use water, we can reduce dependence on imported Colorado River water while protecting our local groundwater supply. Hydro-regionalism involves a shift from the existing 'scarcity' framework to one of sufficiency and abundance. These concepts and practices have already taken root in Tucson and Pima County: we are national leaders in reclaimed water use, rainwater harvesting, green infrastructure, and native landscaping. To build on these successes and set the national standard for hydro-regionalism, Tucson needs to further cultivate a diverse water portfolio of renewable and recycled water supplies coupled with strong conservation programs.

More rain falls on the City of Tucson in one year than the entire amount of water the city uses from the tap. This abundant renewable water supply can be harnessed to offset our water needs and enhance recharge of our aquifers. Under a hydro-regional model, groundwater aquifers – aided by enhanced stormwater recharge strategies – can be restored to a fully renewable water supply. Additionally, by limiting groundwater pumping to the amount of water that is recharged annually, this finite resource can be restored and stabilized to support renewal of seasonal and annual flows in our springs, creeks, and rivers. Finally, recycled water sources are a critical piece of a balanced water budget. Greywater and reclaimed water can be used for irrigation and landscaping needs, reducing the strain on municipal supplies.

Hydro-regionalism offers direct economic benefits to our region. Though water security is a top priority for many Arizonans, the state's future water resources remain uncertain. **Our current reliance on the drought-stricken Colorado River may deter economic investment in Southern Arizona by investors wary of future water shortages, whereas increased water independence and security resulting from a hydro-regional water policy will support and encourage long-term economic investment in our communities.**

A hydro-regional water policy that protects and restores riparian and aquatic systems will realize an increase in the value of 'ecosystem services' provided. A recent report by Seattle-based non-profit Earth Economics prepared for Watershed Management Group found that Lower Sabino Creek alone provides between $1.4 and $2.1 million dollars of 'ecosystem services' – clean water and air, urban heat island mitigation, outdoor recreation, groundwater recharge, and flood control – each year.

Moreover, under a hydro-regional policy, Tucson will gain stature as a regional and national leader in sustainable water use. Innovative conservation and augmentation strategies, technologies, and practices will both support local economic development and serve as examples for other communities working to increase municipal water security.

[2] "Renewable supplies from the local watershed" does not include Colorado River water delivered hundreds of miles through CAP to southern Arizona.

WMG staff worked closely with the Community Water Coalition to develop and adopt Hydro-regionalism as a CWC policy platform. See the full platform at communitywatercoalition.org.

Community Water Coalition

Watershed Management Group

To ensure available water is secured to support future generations of healthy Tucsonans, water-dependent riparian and aquatic systems, and continued economic investment in our region, we propose the following actions and policies for the Upper Santa Cruz Subbasin in the Tucson Active Management Area:

- Develop water resource budgets based on renewable local water resources to meet present and future community needs.
- Analyze seasonal and annual variability of aquifer recharge to determine sustainable use without depleting groundwater and impairing riparian and aquatic systems.
- Collaborate with agencies and governments to improve integrated stormwater management and set water conservation targets to shift the Tucson basin towards sustainable local water resource reliance and awareness of local drought conditions.
- Assess the potential for utilizing urban enhanced stormwater runoff to meet community water resource needs in the Tucson basin.

Colorado River water is diverted and transported over 300 miles through the CAP canal to bring water to Tucson. With a shift to hydro-regionalism, Tucson can reduce its dependence on this unsustainable, imported water supply.

GO HYDRO-REGIONAL
WITH A DAILY WATER TARGET: 40 GALLONS

We love our water budgets! While we do water budgets for backyards, we also ramp up the spreadsheets for creeks and larger watersheds. **We've created a sexy spreadsheet for the Tucson basin that proves with hard numbers that going hydro-regional is possible.**

Of course, we're not there yet. We've got some work to do to drive down our water use and drive up our groundwater recharge.

The magic number is 40 GPCD (gallons per capita per day). In simple terms, GPCD refers to the average daily water use for a single person. For example, Tucson Water Customers use an average of 80 gallons per person per day.[3] This GPCD is coveted by many a municipality across the West, but we can do better and lead the way!

If Tucsonans bring the average GPCD down to 40, we can meet all our water needs with local renewable groundwater supplies and reclaimed water. With this paradigm shift, we can stop drawing down Colorado River water and restore flow to our rivers! Even more exciting, these numbers don't yet factor in the potential of rainwater, greywater, and stormwater to supplement our water needs (a project for a future rainy day).

Have you calculated your GPCD? Many of WMG's staff are between 20 and 40 GPCD. At the Living Lab, we use zero gallons of municipal water thanks to our potable rainwater harvesting system. As you set your goals for water conservation, we ask you to consider aiming for 40 GPCD or less. By doing so, you can help make hydro-regionalism a reality.

[3] For single family residential use in 2015.

TUCSON BASIN ANNUAL WATER BUDGET
SHIFTING FROM DEPENDENCE ON COLORADO RIVER WATER TO LOCAL, RENEWABLE SUPPLY

Supply	Description	Current Use (Acre Feet)	Future Use: Hydro-Regional Shift (Acre Feet)
Local, Renewable Supply: Groundwater Effluent Harvested Water*	annual natural groundwater recharge	51,300	51,300
	treated wastewater available for reuse	67,030	41,040
	rainwater, stormwater, and greywater that can be harvested for use	unknown	unknown
Imported, Unsustainable Supply: Colorado River water	water diverted from the Colorado River and transported to Southern Arizona through Central Arizona Project	177,232	0
Total		**295,562**	**92,340**
Demand	**Description**	**Current Use (Acre Feet)**	**Future Use: Hydro-Regional Shift (Acre Feet)**
Municipal Potable Water	potable water distributed through local water utilities	119,283	51,300
Effluent	treated wastewater distributed for irrigation use	23,593	23,593
Harvested Water*	rainwater, stormwater, and greywater that is harvested for potable or irrigation use or groundwater recharge	unknown	unknown
Total		**142,876**	**74,893**
Balance	Remaining water either recharged in groundwater facilities or discharged in Santa Cruz River to support riparian habitat	**152,686**	**17,447**
Average Daily Residential Water Use for Tucson Basin	**gallons per person per day for current population of 867,170**	**100**	**43**

**Currently the potential supply and demand of harvested water is not quantified, however, this is an important piece of our future hydro-regional water budget.*

For more details on this water budget, visit watershedmg.org/advocacy/50-year/hydroregionalism

You can join the River Run Network by taking the pledge and committing to priority actions at Watershedmg.org/RRN.

Volunteers installed this one-rock dam in the spring of 2016 to help slow, spread, and sink stormwater runoff moving through the arroyo. WMG's Trevor Hare led this project installing 150 one-rock dams on a residential property along Lower Sabino Creek to help restore the flow.

Join the River Run Network!

Do you want to see Tucson's rivers run again? Then you should join our River Run Network and work with your neighbors, local businesses, and agencies to reach our collective goal!

WMG is launching the River Run Network to give you an online platform to converge, learn about restoration priorities and flow goals, and take part in priority actions. The Network will be facilitated by WMG, but its strength comes from the participation of the community.

The Network covers the Tucson basin, from the headwaters in the Catalina and Rincon Mountains all the way to the Santa Cruz River. We're starting at the top of the watershed, but ultimately, our goal is to restore the Santa Cruz River.

To make it manageable, we have divided the River Run Network into streamsheds. Streamsheds are made up of a specific stream section and the adjacent land area that most influences the stream hydrology. The streamsheds were delineated by areas that have common hydrologic characteristics and a common stream flow restoration goal. We're currently focusing on four streamsheds – Lower Sabino Creek and three sections of the Tanque Verde Creek.

If you live in one of these streamsheds, you can find your home and neighborhood on our interactive maps and see how your area: 1) connects to the stream through nearby drainages, arroyos, and shallow groundwater areas; and 2) impacts the stream through nearby groundwater wells, residential and commercial developments, and road infrastructure. Then, based on these conditions, there are specific recommendations on the actions you can take to enhance local groundwater, riparian habitat, and stream flow. Actions will focus on conserving water, reducing groundwater demand, increasing recharge through green infrastructure, and restoring arroyos and riparian habitat.

The River Run Network will grow into a central component of WMG's 50 Year program along with our educational programs and policy actions. WMG will continue to lead a stakeholder advisory group for Sabino and Tanque Verde Creeks and work with the Community Water Coalition to coordinate policy initiatives that will support environmental flows. Our River Speaks program will also continue with new classes at our Living Lab, field trips to the creeks, community events, and expanding our work with K-12 schools.

For each streamshed, we have set a restoration goal for restoring our heritage of regular flow. We're working towards year-round flow for some streamsheds and seasonal flow for others, based on their historic flow patterns. Flow can also occur sub-surface and support critical riparian habitat. During drought years, our goal is to have groundwater levels within 3 to 10 feet of the surface of the creek bed, which will ensure cottonwood, willows, and mesquites have the water they need to thrive.

River Run Network

Lower Sabino Creek
The Goal: To restore year-long creek flow supported by stable groundwater levels. During years of drought, to maintain groundwater levels within 3 feet of the channel bed.

Sabino Canyon Recreation Area

LOWER SABINO STREAMSHED

LOWER TANQUE VERDE STREAMSHED

Rillito River

Sabino Creek

Tanque Verde Creek

Pantano Creek

Lower Tanque Verde Creek
The Goal: To restore creek flow during the summer monsoon and winter seasons supported by stable groundwater levels. During years of drought, to maintain groundwater levels within 10 feet of the channel bed.

Tucson or Metro Water Well
Riparian Area
Major Creeks
Shallow Groundwater Area
Streamshed
0 0.5 1 2 Miles

Target Streamsheds:

Middle Tanque Verde Creek
The Goal: To restore creek flow during the summer monsoon and winter seasons supported by stable groundwater levels in the Middle Tanque Verde and Lower Agua Caliente. During years of drought, to maintain groundwater levels within 10 feet of the channel bed.

Upper Tanque Verde Creek
The Goal: To restore year-long creek flow supported by stable groundwater levels. During years of drought, to maintain groundwater levels within 3 feet of the channel bed.

MIDDLE TANQUE VERDE AND AGUA CALIENTE STREAMSHED

UPPER TANQUE VERDE STREAMSHED

Agua Caliente

Tanque Verde Creek

E Speedway Blvd

N Freeman Rd

River Run Network Streamsheds Priority Actions

1. Reduce groundwater demand along the creek to help restore shallow groundwater areas and raise groundwater levels to within 3-10 feet of the channel bed surface during dry periods.
2. Stabilize eroding tributary arroyos and enhance stormwater infiltration using one-rock dams and other channel restoration practices.
3. Increase recharge and groundwater levels in shallow groundwater areas using rainwater harvesting and green infrastructure practices.
4. Remove invasive, non-native plants along the creek corridor including Giant reed (*Arundo donax*).

Restoring Ciénega Creek:

EXPANDING OUR 50 YEAR PROGRAM!

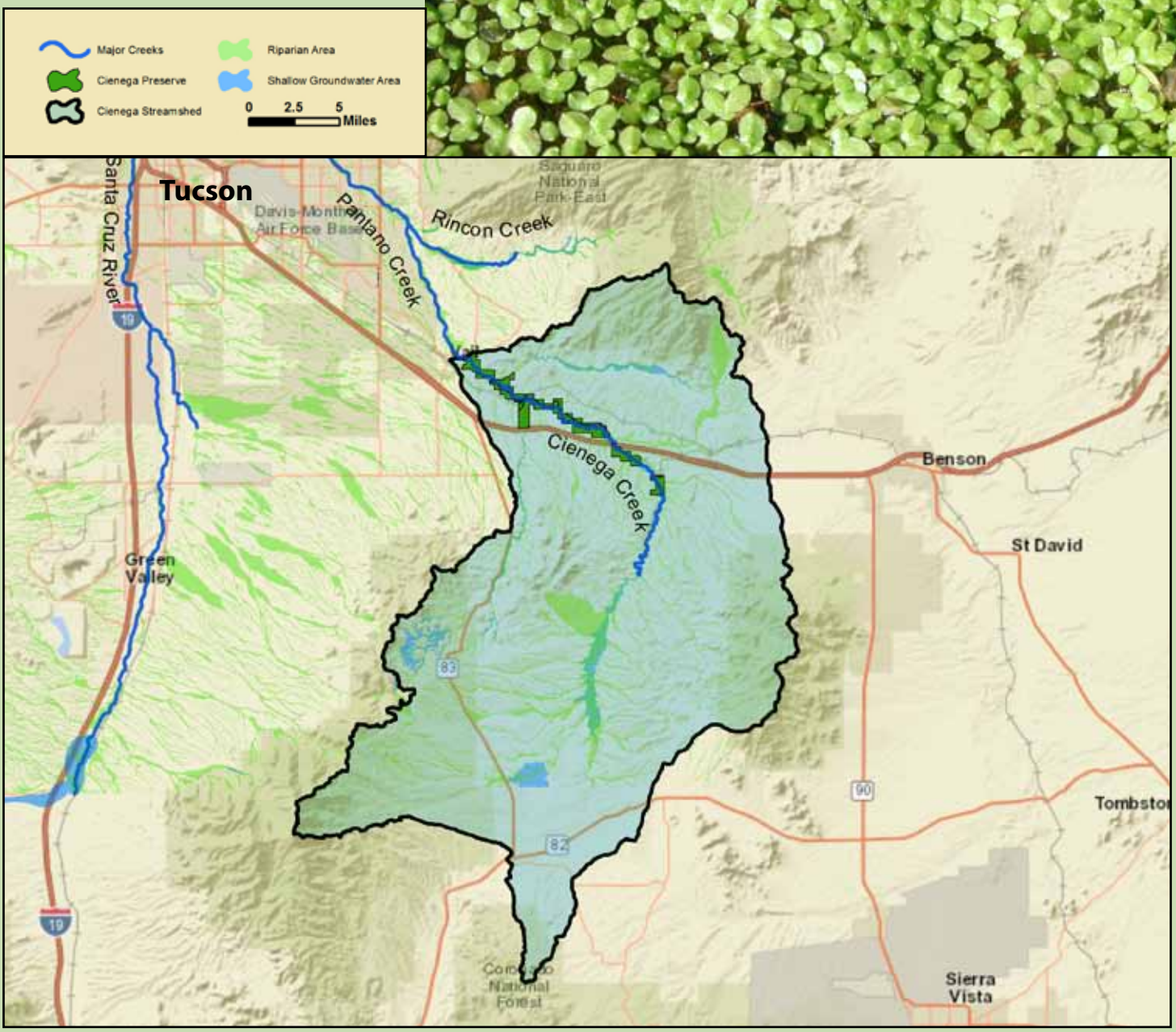
Visit Ciénega Creek during the monsoon season and you might be lucky enough to spot a lowland leopard frog, or even the endangered Gila chub, while enjoying a picnic under the cooling shade of a mighty cottonwood tree. More than 280 native species, several of them threatened or endangered, make their home here. Rare frogs and fish rely on the flows in Ciénega Creek, and birds, bats, and other species thrive in the lush canopy of willows, cottonwoods and other riparian plants and trees.

Ciénega Creek flows northwest from the Canelo Hills into an area just outside of Tucson, where it feeds into the Pantano and, eventually, the Rillito River. The creek is a critical corridor for wildlife to roam between the Sonoran and Chihuahuan deserts and the Sierra Madrean and Rocky Mountain forests.

Restoring and conserving this vital area is an important part of our 50 Year Program to restore year-round flows to Southern Arizona's desert rivers. **In fact, WMG River Restoration Biologist Trevor Hare sees the Ciénega Creek watershed as "a lifeline in our 50-year vision to return flows to Tucson's rivers as it is the only flowing creek to enter the Tucson basin." Ciénega Creek currently contributes up to 40% of all recharge for the Tucson Basin aquifer.** Yet, like so many waterways in the Tucson area, Ciénega Creek flows only intermittently, in part due to shallow groundwater pumping. Its banks are also suffering from erosion and an influx of non-native invasive species that choke out important native species. Plants, trees, animals, and humans all depend on the water and habitat the creek provides, but these resources are under threat.

The good news is that both individual property owners and local and federal agencies are passionate about creating a brighter future for Ciénega Creek. That's why the Ciénega Watershed Partnership has enlisted WMG's help in creating a restoration plan to begin the process of revitalizing and conserving this important area. Through a prioritization process led by WMG's Trevor Hare, we gathered input from stakeholders in four work group meetings over the summer. Through this collaborative process, we'll be producing a guide to where and how we initiate conservation actions, and then we'll be out there getting our hands dirty and turning plans into reality!

Restoring the flow to Ciénega Creek will not only help recharge our aquifer, but also ensure that we stay connected to the wildlands of southeastern Arizona—where jaguars and ocelots still roam, where trogons and turkeys call, and where semi-desert grasslands and oak savannas are the setting for the ciénegas that gave the creek its name. We hope you'll join WMG and its partners in helping to restore and preserve this precious desert ecosystem. Visit our website today to sign up for the River Speaks bulletin and stay informed about the exciting work WMG is doing as part of our 50 Year Program to restore flow to southern Arizona's waterways.



Above left: Water still flows in the summer in Cienega Creek.
Left: Rare riparian habitat supports the Chiricahua leopard frog, a Threatened species due to loss of habitat and invasive species.
Above:The Sonoran mud turtle is another native species that depends on Cienega Creek.

Talking about the Birds and the Bees with Youth at Tonto

Watershed Management Group recently teamed up with The National Parks Service to engage youth in creating rain gardens that attract birds, bees, and butterflies. **In May, WMG Program Manager Ryan Wood partnered with Tonto National Monument and Rim Country Middle School staff to provide over 150 6th-grade students with an unforgettable experience.** These lucky students spent two days at the monument transforming the visitor center's parking lot median into a pollinator garden full of native plants.

The students got their hands dirty by shaping the landscape to slow, spread, and sink the rainwater that falls directly onto the site and by planting five trees and over 117 native plants. Maya, one of the participants, commented in her thank you letter: "I think it was awesome how we got to plant." Awesome, indeed! Planting the garden gave the students first-hand experience with a simple way to support an important effort: creating places for pollinators to flock and feed. Species such as the monarch butterfly (See pages 16 - 17) have evolved alongside native plants, and they rely on these plants for fuel. Plants such as milkweed, desert senna, and fairy dusters can provide nectar for the butterflies, birds, bees, and other insects in our ecosystem who pollinate our native plants.

The collaboration between the National Park Service and WMG doesn't stop with the creation of the rain garden. This fall, WMG will return to the Tonto National Monument to install a rainwater harvesting system at the monument's administration building.

To learn more about working with WMG's Phoenix branch, contact Ryan Wood at 602-618-6650.

LAS CRUCES, NM BECOMES NEW HUB FOR GREEN INFRASTRUCTURE

When Las Cruces, New Mexico wanted help implementing green infrastructure (GI for short) practices, WMG heeded the call. Last winter, Stream Dynamics and WMG provided a two-day green infrastructure training for Las Cruces professionals. In the spring and summer, WMG developed conceptual plans for the downtown restoration project and designed and guided the installation of a large-scale rain garden at a city ball field. WMG and the City's to-do list continues to grow as the City works toward its ambitious sustainability goals.

The plan that WMG's Kieran Sikdar helped create for Las Cruces' downtown includes chicanes, curb cuts, and water harvesting basins in traffic medians—all features that will help put stormwater to good use and to create a cooler, greener landscape.

In fact, the benefits of GI are already on display at the Hadley Recreational Complex in Las Cruces. In June, Kieran worked with the City Landscape Architect Cathy Mathews and a local contractor to install a 15,000-square-foot rain garden that harvests parking lot runoff, irrigates shade trees, and creates attractive habitat near a city ballfield in this recreational area. The staff and contractors learned a lot about the nuances of slope and volume during this project, but seeing the finished project in action was the real draw. According to Sustainability Officer Lisa LaRocque, "It was truly amazing watching the parking lot stormwater pass through the inlet, fill up the Zuni bowl and gently spill into the swales and eventually over the check dams. Every time it rains, a group of us run out to watch the green infrastructure in action!"

New GI projects in Las Cruces continue to emerge. **As part of a climate change mitigation effort, Kieran will be creating a conceptual plan to increase shade tree cover in low- to moderate-income neighborhoods in the city's infill area.** This area experiences an urban heat island effect that makes it 5°F warmer than the rest of the city, so cooling it down will be much appreciated by area residents.

It's no wonder that GI is becoming an integral part of 21st-century urban planning, and Las Cruces is joining other Southwestern cities—like Tucson—in becoming a model of how it can green our cities and improve our lives.

Monarchs Among Us

In the spring of 2016, Watershed Management Group and the Arizona-Sonora Desert Museum (ASDM) entered into a unique partnership united under a mighty force: the monarch butterfly. Capable of bringing three nations together in an effort to reverse its decline, the monarch butterfly is one charismatic insect. The monarch is best known for its incredible annual migration of several thousand miles from locations in Canada and the United States to the *oyamel* fir forests in central Mexico. Migrating monarchs often flock to yards and parks where they can find milkweed and other food sources, and the Sonoran Desert plays a critical role in protecting the monarch's migratory path by providing places for monarchs to feed and breed.

WMG and ASDM joined the tri-national conservation effort by establishing the **Arizona Monarch Conservation Partnership**: a network of conservation groups, universities, citizen scientists, and even government agencies working to advance monarch butterfly conservation in Arizona. The partnership works to increase monarch habitat by installing urban rain gardens on public and private lands across the state, allowing the butterflies to feed, breed, and continue their migration. And of course, the partnership has a strong focus on community engagement, outreach, and education.

With conscientious volunteers and a network of established rain gardens throughout the city, WMG's Green Living Co-op was the perfect avenue for launching this partnership. Co-op-installed urban rain gardens can easily support migratory monarch populations with the addition of milkweed plants, so ASDM's Conservation Research Scientist, Sergio Avila, teamed up with WMG staff to educate Tucson Co-op volunteers and community members about monarch behaviors and habitat. But we're not talking about dry lectures—in classic WMG style, we creatively integrated monarch education into social gatherings: from happy hour to yoga to plant distributions. Butterfly pose, anyone?

We are proud to report that, through these efforts, rain gardens throughout the city are being transformed into monarch havens, or Waystations, that provide rest stops for monarchs to refuel and reproduce as they traverse the Sonoran Desert. In just a few months, we have registered nine Monarch Waystations! Four Co-op member homes; four public demonstration sites, including WMG's Living Lab and Learning Center, Ward 2 Council Office, and Ward 6 Council Office; and one school will all be added to the national registry of Monarch Waystations.

Transform your yard into a Monarch Waystation, and help us transform Tucson into a City of Monarchs! Learn more at www.watershedmg.org/monarchs.

LIVING LAB & LEARNING CENTER:

Rainwater on Tap: WMG's 2nd annual Rainwater on Tap event featuring rainwater beer and cocktails and other rain to table fare. This Giving Tuesday event will also launch our year-end fundraising campaign.

NOVEMBER

Rainwater Harvesting Class (Tucson Water Rebate)..... November 3, 3:00-6:00 pm
Composting Toilet Kit Educational Session ..... November 5, 10:00 am-12:00 pm
Living Lab and Learning Center Free Tour ..... November 12, 9:00-10:30 am
Greywater Harvesting Class (Tucson Water Rebate)..... November 15, 4:00-6:00 pm
Field Studies: Pruning Native Shade Trees ..... November 19, 9:00 am-12:00 pm
Giving Tuesday Rainwater on Tap..... November 29, 5:00-8:00 pm
YogaFlow ..... Every Monday, 12:00-1:00 pm
CSA Pick-Up..... Every Wednesday, 3:00-6:00 pm

DECEMBER

Rainwater Harvesting Class (Tucson Water Rebate)... December 3, 9:00 am-12:00 pm
Rainwater Harvesting Class (Tucson Water Rebate)..... December 8, 3:00-6:00 pm
Living Lab and Learning Center Free Tour ..... December 10, 10:00-11:30 am
River Speaks Lunch and Learn ..... December 10, 12:00-2:00 pm
YogaFlow (no class Dec. 26) ..... Every Monday, 12:00-1:00 pm
CSA Pick-Up..... Every Wednesday, 3:00-6:00 pm

River Speaks Lunch and Learn: Dive deep into WMG's 50 Year Program and learn about the heritage of Tucson's creeks and rivers and how you can join the River Run Network to restore the flow. This event is led by WMG founders Lisa and Catlow Shipek and includes a catered, local lunch.

JANUARY

Living Lab and Learning Center Free Tour .....January 14, 10:00-11:30 am
Greywater Harvesting Class (Tucson Water Rebate)..... January 19, 4:00-6:00 pm
Rainwater Harvesting Class (Tucson Water Rebate).....January 21, 9:00 am-12:00 pm
Rainwater Harvesting Class (Tucson Water Rebate)..... January 26, 3:00-6:00 pm
Field Studies: Water Harvesting Irrigation Systems.....January 28, 10:00 am-12:00 pm
YogaFlow (no class Jan. 2).....Every Monday, 12:00-1:00 pm
CSA Pick-Up..... Every Wednesday, 3:00-6:00 pm

Field Studies—Water Harvesting Irrigation Systems: Learn the fundamentals of planning and installing irrigation systems compatible with rain gardens, rain tanks, and greywater systems.

Field Studies—Composting Toilets and Humaure: Join the humanure revolution by learning about how to construct and maintain your own composting toilet and utilize the finished compost in your yard.

FEBRUARY

Rainwater Harvesting Class (Tucson Water Rebate).....February 4, 9:00 am-12:00 pm
Living Lab and Learning Center Free Tour .....February 11, 10:00-11:30 am
Rainwater Harvesting Class (Tucson Water Rebate).....February 23, 3:00-6:00 pm
Field Studies: Composting Toilets and Humanure.... February 28, 5:00-7:00 pm
YogaFlow .....Every Monday, 12:00-1:00 pm
CSA Pick-Up..... Every Wednesday, 3:00-6:00 pm

Event Calendar

MARCH

Rainwater Harvesting Class (Tucson Water Rebate)..... March 4, 9:00 am-12:00 pm
Living Lab and Learning Center Free Tour..... March 11, 9:00-10:30 am
Water Harvesting Design Certification .....March 13-19
Greywater Harvesting Class (Tucson Water Rebate) .... March 16, 4:00-6:00 pm
Rainwater Harvesting Class (Tucson Water Rebate).....March 23, 3:00-6:00 pm
Edible Shade Mesquite Pancake Breakfast .... March 26, 9:00 am-12:00 pm
Field Studies: Pruning Native Shade Trees ..... March 25, 9:00 am-12:00 pm
YogaFlow .....Every Monday, 12:00-1:00 pm
CSA Pick-Up..... Every Wednesday, 3:00-6:00 pm

Edible Shade Pancake Breakfast: Come join us for a fun-filled morning of local food, live entertainment, and family-friendly education as we celebrate the delicious shade of mesquite, pomegranate, olive and other edible native and desert-adapted trees.

Greywater Rebate Class:
In this free class, you'll learn how to put "wastewater" from your laundry, shower, and sinks to good use in your landscaping and how to save money through Tucson Water's rebate program.

APRIL

Rainwater Harvesting Class (Tucson Water Rebate)..... April 1, 9:00 am-12:00 pm
Arizona Gives Day..... April 4
Living Lab and Learning Center Free Tour..... April 8, 9:00-10:30 am
Rainwater Harvesting Class (Tucson Water Rebate)..... April 27, 3:00-6:00 pm
Field Studies: Sonoran Food Forests ..... April 13, 5:30-7:30pm
YogaFlow ..... Every Monday, 5:30-6:30 pm
CSA Pick-Up..... Every Wednesday, 3:00-6:00 pm

Field Studies—Sonoran Food Forest: Learn how you can transform your landscape with a Sonoran food forest full of fruit trees and edible native trees, herbs, veggies and more.

Field Studies—Desert Soils: Uncover the mysteries of desert soils by understanding its characteristics and learn how to turn traditional "wastes" into a soil resource through composting and water harvesting practices.

MAY

Rainwater Harvesting Class (Tucson Water Rebate)..... May 6, 9:00 am-12:00 pm
Living Lab and Learning Center Free Tour..... May 13, 9:00-10:30 am
Greywater Harvesting Class (Tucson Water Rebate)..... May 18, 4:00-6:00 pm
Rainwater Harvesting Class (Tucson Water Rebate)..... May 25, 3:00-6:00 pm
Field Studies: Building Healthy Desert Soils..... May 11, 5:30-8:00 pm
YogaFlow ..... Every Monday, 5:30-6:30 pm
CSA Pick-Up..... Every Wednesday, 3:00-6:00 pm

Register for these events at watershedmg.org/event/tucson or call us at 520-396-3266 x 22

Watershed Management Group

1137 N Dodge Blvd
Tucson, AZ 85716

MISSION:
Watershed Management Group develops and implements community-based solutions to ensure the long-term prosperity of people and health of the environment. We provide people with the knowledge, skills, and resources for sustainable livelihoods.

Tucson's Mayor, Jonathan Rothschild, proclaimed WMG's 50 Year Program to restore flow to our rivers an essential component of Tucson's future prosperity.