

MEETING WATER CHALLENGES WITH EQUITABLE DISTRIBUTED INFRASTRUCTURE

August 17, 2022
10am PT / 1pm ET



Music: www.bensound.com

WATERNOW ALLIANCE

Housekeeping & How to Ask Questions

Q&A

You ask: 13:05
How do I use these awesome tools?

Joshua Jones answered: 13:06
You are already using one of the most awesome tools. We'll discuss the rest right away.

Please input your question

Send Anonymously Send



Today's Speakers



APRIL MENDEZ

Chief Executive Officer

Greenprint Partners



CLAIRE NORDLIE

Sustainability Coordinator

City of Santa Rosa, CA



FLOR SANDOVAL

Program Director

Sonoran Environmental
Research Institute, Inc.



IRENE OGATA

Urban Landscape Manager

Tucson Water

Agenda



- About WaterNow
- Equitable Approaches for Green Stormwater Infrastructure
- Engaging Spanish-speaking Communities in Water Conservation
- Direct Installations – Pathways for Participation in Rainwater Harvesting
- Moderated Discussion: Digging in with Our Panel
- Audience Q&A



TRANSFORMATIVE WATER
LEADERSHIP ACADEMY

Great water utility leaders aren't born;
they're developed.

APPLY NOW!



**APPLICATIONS
DUE SEPT. 15**



American Water Works
Association



waternow
alliance

#TWLA23



PLEASE COMPLETE OUR WEBINAR EVALUATION!



 **waternow** alliance
water leaders. resilient solutions.

WHO ARE WE?



A forum and network of local water leaders advancing sustainable, affordable, equitable and climate resilient water strategies

WHAT DO WE MEAN BY SUSTAINABLE?

Providing safe, healthy, and affordable water services for people while preserving the integrity of water resources and the environment for future generations.



WHAT DO WE MEAN BY EQUITABLE?



Water equity means universal access to secure, affordable, safe, and healthy drinking water, and wastewater and stormwater management services. Equitable water infrastructure investment should support the long-term sustainability of our waterways, water systems, and utilities.





Equity Guide for Green Stormwater Infrastructure Practitioners

Because green infrastructure can be a powerful lever for advancing equity.

WaterNow Equitable Distributed Infrastructure Webinar



GUIDE AT A GLANCE

Who developed the Guide?



Project Lead



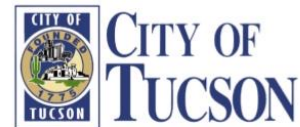
Lead Author



Contributors



Project Team + Reviewers



Focus Groups

PUBLIC SECTOR / CONSULTANTS

Atlanta Watershed Management Department
Baltimore Department of Public Works
City of Vancouver
Jacobs Engineering Group
King County
Metropolitan Planning Council
Metropolitan St. Louis Sewer District
Philadelphia Water Department
Seattle Public Utilities
The Nature Conservancy
Washington DC Department of Energy and Environment.

COMMUNITY-BASED ORGANIZATIONS

Baltimore: American Communities Trust, Watershed Partnership of Baltimore
Chicago: Center for Neighborhood Technology, James Patchett, Thomas Price
Milwaukee: Milwaukee Water Works, Milwaukee Water Commons
Seattle: Environmental Coalition of South Seattle
Tucson: Primavera Foundation, Tucson Water Rebate Program
Vancouver, BC: Still Moon Arts, False Creek Watershed, West Coast Environmental Law, Simon Fraser University

GUIDE AT A GLANCE

Get grounded in research



The Literature Review grounds the Guide in peer-reviewed research, published stormwater plans and reporting documents, and lived experiences of practitioners and stakeholders.

80

Published sources, spanning peer-reviewed literature and published plans and tools produced by practitioners and national organizations reviewed.

64

Individuals interviewed across 10 teams of practitioners and 11 clusters of community leaders in Seattle/King County, Chicago, Baltimore, Tucson, Milwaukee, Atlanta, Vancouver, DC, Buffalo, St. Louis, San Francisco, and Philadelphia.

75

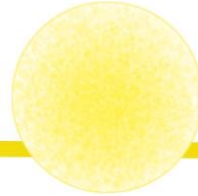
Page *Literature Review and Community Interview* summary boiling down insights and acting as the foundation for the Equity Guide.

DEFINING EQUITY



“The state in which one’s race, economic status, zip code, and other forms of **personal and community identities do not define one’s privilege or oppression.**”

Equity Statement of Purpose



“**Fairness in process and outcomes**, including the allocation of resources based upon need. The factors and processes that determine Equity are dynamic and may change over space and time, as new circumstances (i.e. climate change) and understandings arise.”

giequity.org



The state in which, regardless of identity, **all are free from oppression and have equal access** to—and are sufficiently supported to fully participate in—rights, resources, and opportunities.

DEFINING EQUITY

Spatial equity

Describes **where communities are/have been underinvested or disinvested.**

- Where are communities experiencing multiple forms of systemic vulnerability and environmental injustice (e.g., housing, poverty, access to transportation, food, pollution, and/or environmental burdens)?

Process equity

Describes the degree of **access various communities have to public decision-making.**

- Who has access to government leaders?
- Who is consistently engaged or not?
- What different kinds of barriers limit engagement (e.g., access to information, engagement platforms, language accessibility, time, and child care?)

Identity equity

Describes the multitude of **ways individuals hold racial, gender, ability, age, economic status, and other identities.**

- What are the trends around access to green infrastructure and related investment?
- Are historically marginalized communities centered and included in projects directly affecting their communities?

Power equity

Describes who has **influence and control over resources** and considers whether the profiles of these influencers align with who is most marginalized from the benefits.

- Is power over resources, problem-definition, and solution-making shared?
- Who is being considered the “expert”? Can this group can be expanded to be more inclusive?

HOW GI CAN ADVANCE EQUITY

Community Impact View

Reduce communities' exposure to harm

- polluted water
- localized flooding
- severe heat
- poor air quality
- blight that invites crime and communicates worthlessness

Increase opportunities to thrive:

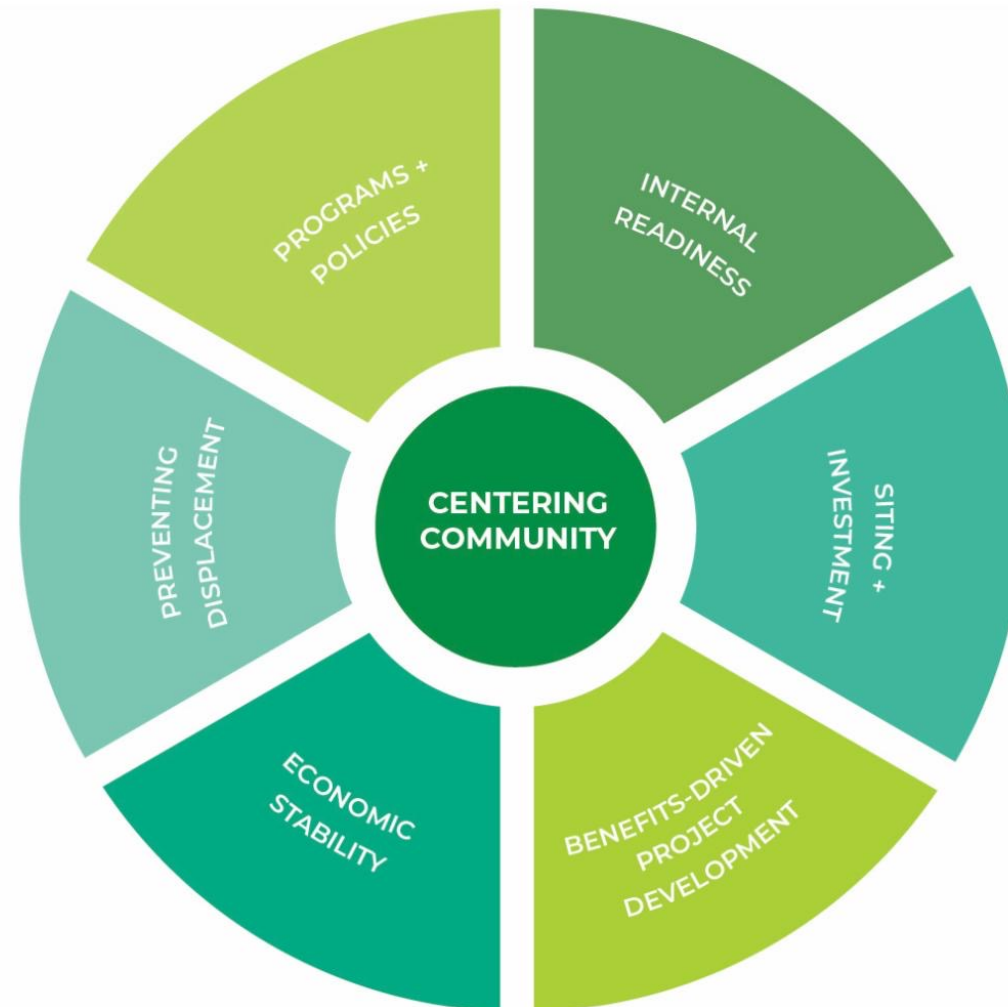
- visible investments that communicate worth
- increased access to naturalized spaces that support health



<https://bit.ly/GSIEquityGuide>

GUIDE AT A GLANCE

Understand the seven equity goals





INTERNAL READINESS

Our team understands equity and we are committed and equipped to advance it through our work.



CENTERING COMMUNITY

Community members are essential partners and participants in all green infrastructure planning and development.



SITING + INVESTMENT

Our project selection approach and investment levels proactively consider potential to advance equity.



BENEFITS-DRIVEN PROJECT DEVELOPMENT

Our green infrastructure projects are designed, constructed, and maintained to provide lasting community benefit.



PREVENTING DISPLACEMENT

Displacement risk is proactively addressed in all of our green infrastructure programs, policies, and projects.



PROGRAMS + POLICIES

Our green infrastructure policies and program design, management, and reporting structures proactively elevate and drive transparency around equity.

THANK YOU

Let's keep talking!



the **green** infrastructure
leadership exchange

PAULA CONOLLY | Director
paula@giexchange.org

KASEY ARMSTRONG | Member Engagement
kasey@giexchange.org



APRIL MENDEZ | CEO
april@greenprintpartners.com

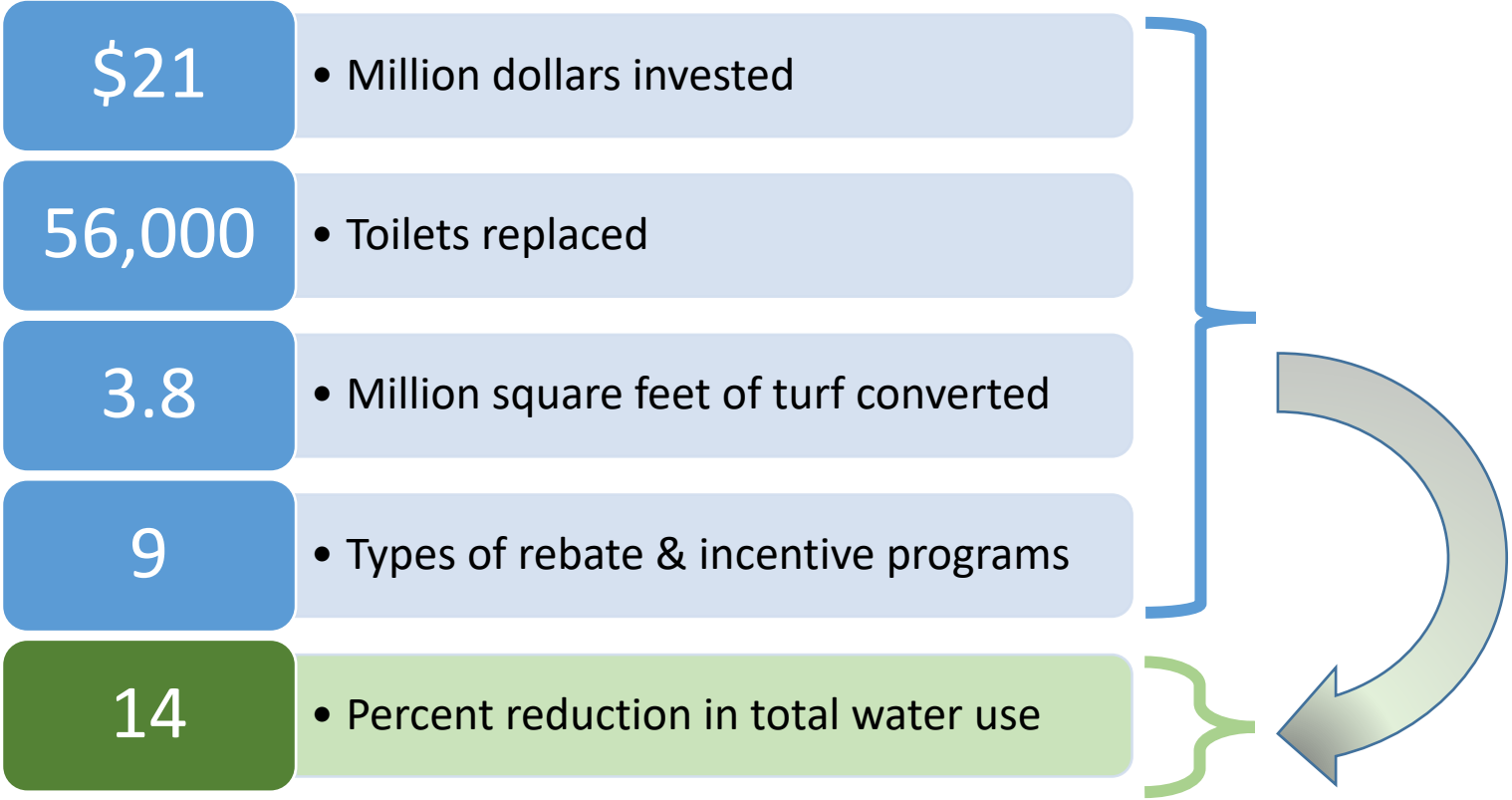
Spanish Language Water Use Efficiency Program Enhancements Project



OUR FUTURE IN EVERY DRÖP

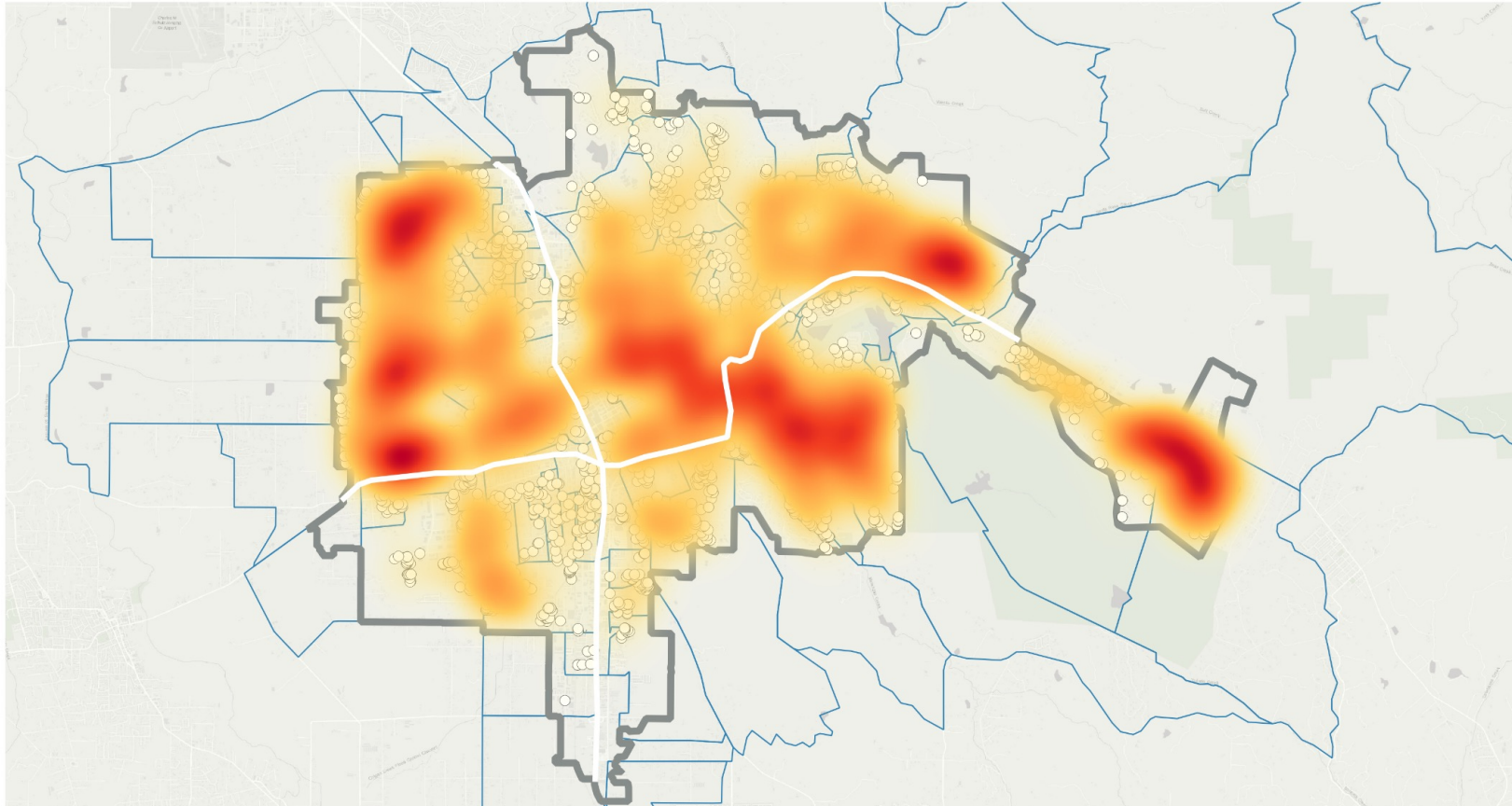
Claire Nordlie, Santa Rosa Water

30 years of Water Conservation



Research Purpose

- Research water use efficiency program frequency and saturation levels across Latinx and Spanish-speaking communities in Santa Rosa
- Identify best practices to enhance outreach and increase water use efficiency uptake in underserved communities



Water Use Efficiency Program Participation, 2013-2021

- Participation Density Heat Map
- Participants
- ▭ Service Area
- ▭ US Census Block Groups
- Highways CA 12 and US 101

Notes: Includes the following programs: (1) CII + MFR Cash for Grass Rebate Green Exchange, (2) CII + MFR High Efficiency Clothes Washer Rebate, (3) SFR Cash for Grass Rebate Green Exchange, (4) SFR WaterSmart Checkup (Indoor), (5) SFR WaterSmart Checkup (Outdoor)

Sources: (1) Santa Rosa Water; (2) Esri Basemap

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Lack of Knowledge and Expertise

“I would like to participate in the larger home efficiency programs--gray water, etc.--but am not sure how to start, who to hire, etc.”

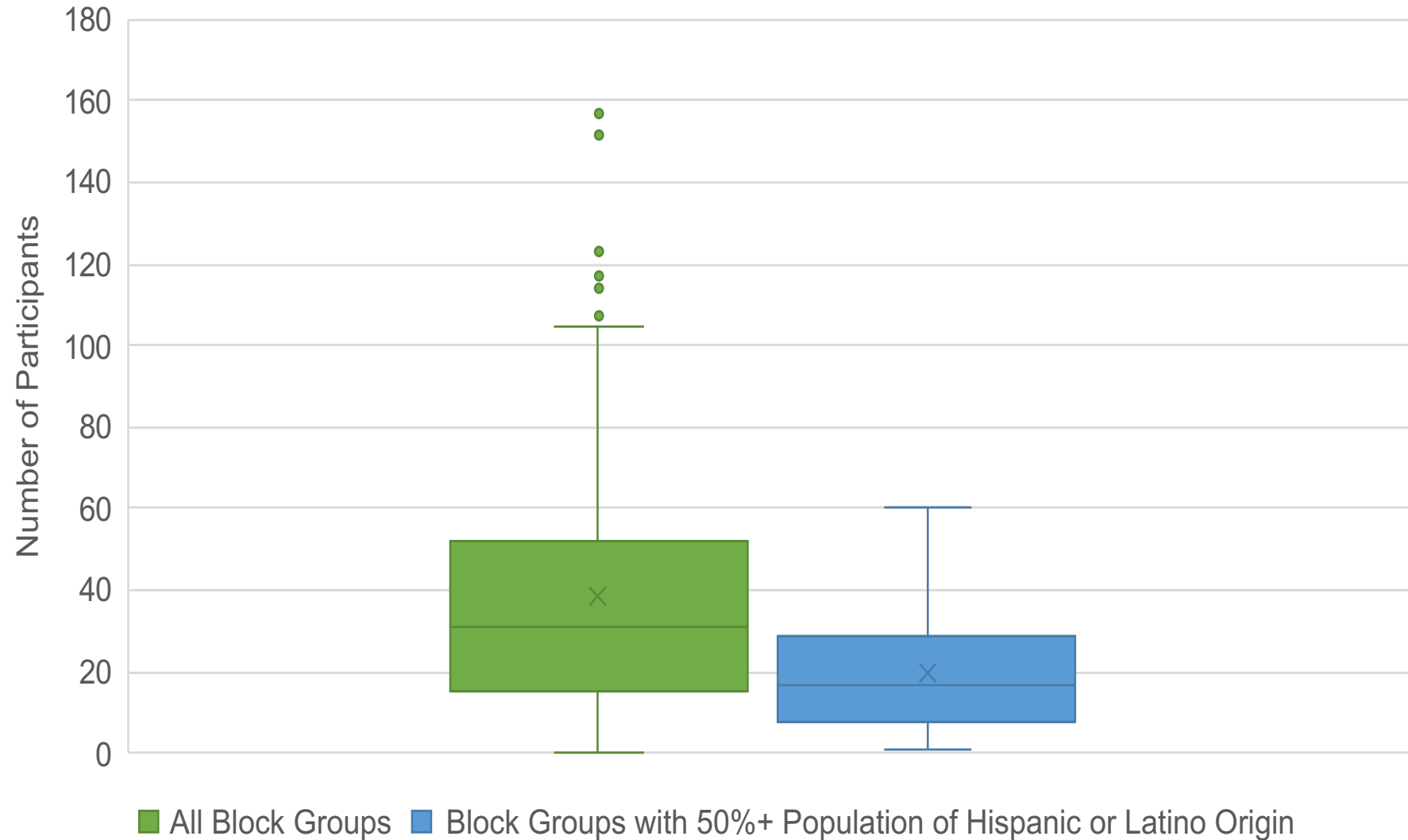
Language Barrier

“...sometimes they don't speak Spanish and that means that you don't understand exactly how the programs work”

Income and Rebates

“I just installed a total of 1,100 gallon rain harvest barrels. It cost me \$1,500 in materials. I’ll receive a rebate of \$250. The rebate doesn’t support the cost of conserving that amount of water.”

Santa Rosa WUE Participants Per Census Block Group



WUE Customer Program Participation Analysis

WUE program participation is generally **lower** in neighborhoods with **higher** percentages of these demographics:



Lack of Internet Access



Educational Attainment (Absence of Degree)



Renter-Occupied Housing



Population Living in Poverty Status



Spanish-Speaking Population



Spanish-Speaking Population with Limited English Fluency



Population that Identifies as Hispanic or Latino by Race



Population that Identifies as Hispanic or Latino by Origin

WUE Customer Program Participation Analysis

Expanding participation among Latinx communities would have generated an additional:

- **90 participants** per year
- **10.9 acre-feet** of sustained water savings per year



Successes and Challenges

- Investment in long-term marketing
- Track outreach campaign metrics
- Diversify outreach approaches
- Seek cultural diversity
- Develop strategic partnerships
- Simplify messaging around clear and concrete actions
- Focus on in-person outreach and meet people where they are



Thank You



August 17, 2022: WaterNow Virtual Webinar

Meeting Water Challenges with Equitable Distributed Infrastructure



Irene Ogata, Urban Landscape Manager, PLA,CPM, Tucson Water



Flor Sandoval, Program Director, Sonoran Environmental Institute



LIMITED INCOME?

Tucson Water and our partners can help.



BILL ASSISTANCE:

Tucson Water offers a

50% MONTHLY BILL CREDIT

to qualifying customers for the water portion of their utility services statement.

To apply, call Tucson Water at 520-791-5443, or visit tucsonaz.gov/water for eligibility information.



SCHEDULE YOUR FREE WATER AUDIT:

A conservation specialist from our Zanjero Program will come to your home and make recommendations; just email twwebacc1@tucsonaz.gov or call 520-791-3242.



FREE TOILET REPLACEMENT:

Qualifying customers can receive up to

2 toilets that use 1.28 gal/flush

that will save water when an older fixture is replaced.

To apply, call Community Home Repair Projects of Arizona at 520-745-2055.



RAINWATER HARVESTING:

Grants up to **\$400** & Loans up to **\$2,000**

Call Tucson Water at 520-791-4331, or visit tucsonaz.gov/water/residential-rebates for details.

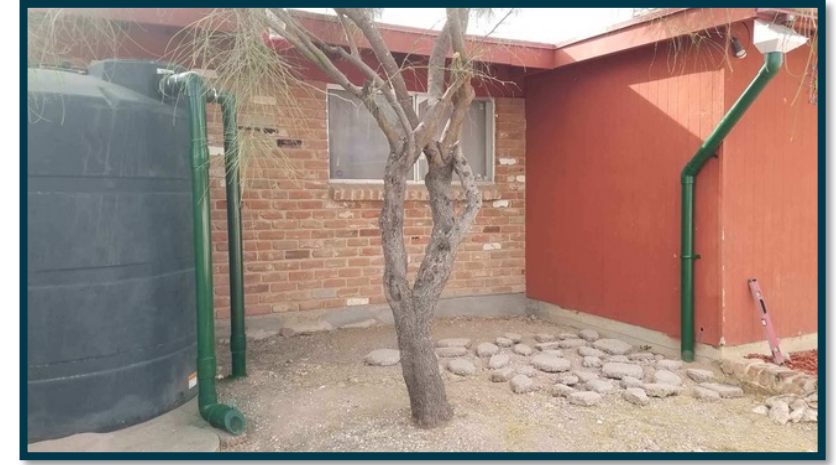


TUCSONAZ.GOV/WATER

PICO 2/18

Partnerships/Collaborations

Tucson Water Low Income Conservation Programs



Community Home Repair Projects of Arizona (CHRP):
Emergency Repairs to Households

Community Home Repair Projects of Arizona (CHRP):
Low-Income Toilet Installations

Sonoran Environmental Research Institute (SERI):
Low-Income Rainwater Harvesting Installations



Partnerships/Collaborations

Pathways for Participation in Rainwater Harvesting

ARE YOU CAPTURING RAINWATER, YET?

Did you know...

- An 800^{sq} ft home on average captures 5000 gallons of water yearly!
- Tucson Water has a rebate program for up to \$2000!

How to obtain your system?

- We help you with the process, installation, and rebate paperwork
- We pay all upfront costs
- We have GRANTS and LOANS available to cover what the rebate doesn't cover

What are some benefits?

- No charge on rainwater
- Saving delivered water for the future
- Healthier water for our plants
- Improve home landscape by planting more plants
- Reduces flood and erosion on the streets

Additional requirements
Call us to get pre-qualify

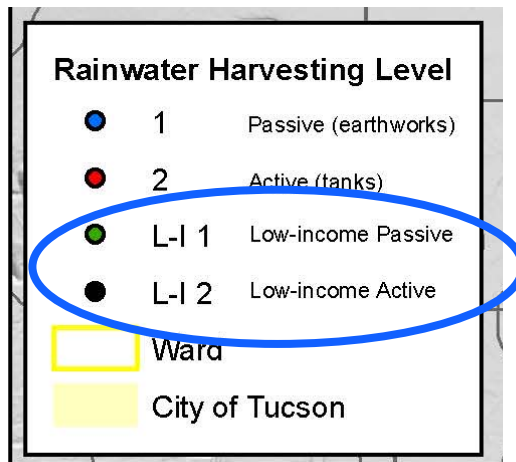
seri For more information call or visit us at:
520.306-0938 | 520.321.9488 | www.seriaz.org

CAPTURA DE AGUA DE LLUVIA PARA FAMILIAS DE INGRESOS LIMITADOS

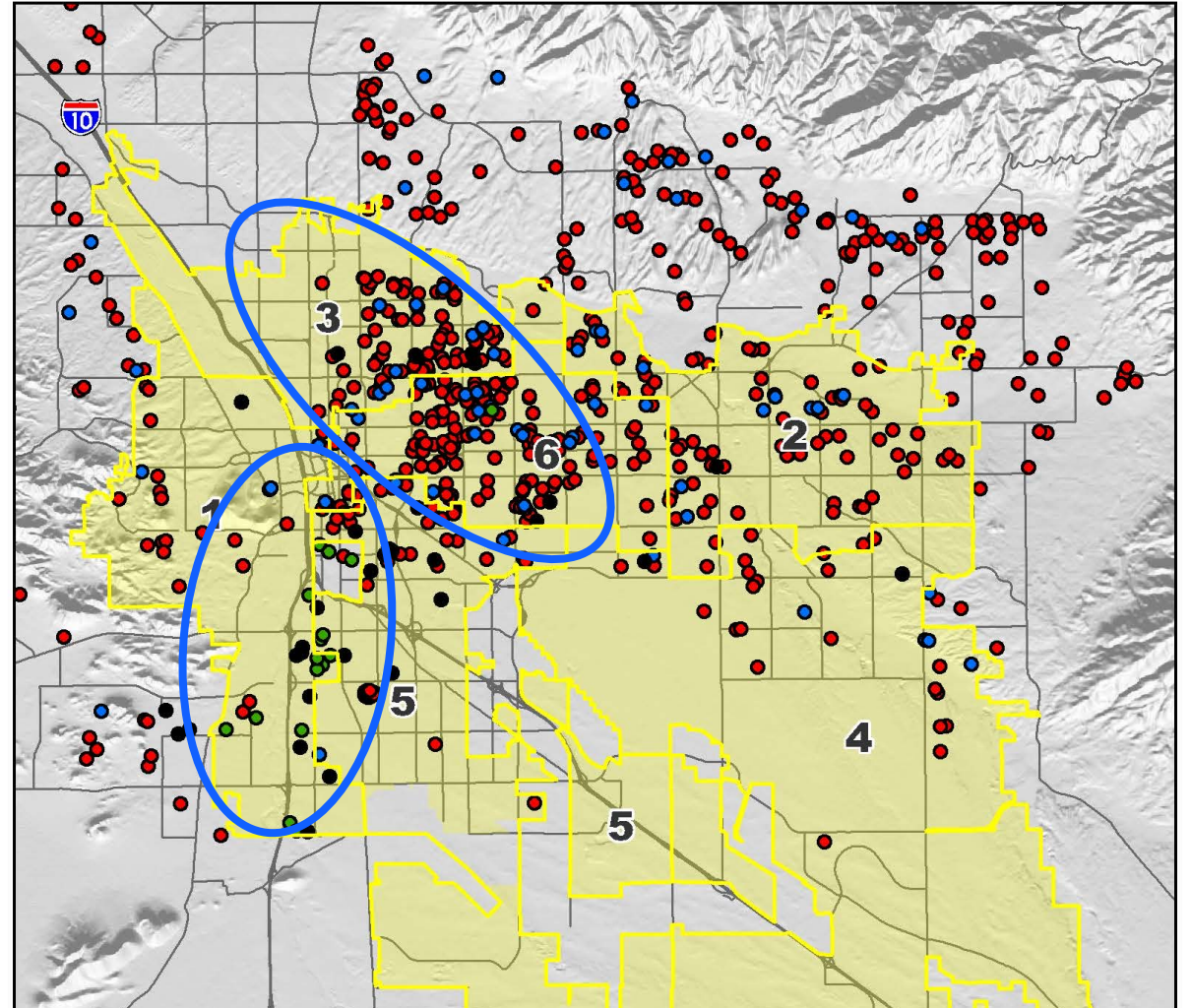
- Becas hasta \$400
- Préstamos hasta \$2,000
- Talleres en la comunidad
- Barriles de lluvia con descuento

seri Para más información, llamar o visitar:
520.404.7369, 520.321.9488 o www.seriaz.org

337 = Total Low Income RWH installations since start of program 2017



Rainwater Harvesting Levels as of June, 2018



City of Tucson
27 Year Tree City



Partnerships/Collaborations

Pathways for Participation in Rainwater Harvesting



2019: Arbor Day Foundation Grant
targeting specific census tracts

- Low income area (specific census tracts)
- 2 trees to homes that have installed RWH systems + shrub (217 low-income households)
- Neighborhood events
 - Tourney Neighborhood
 - Pueblo Gardens
 - Davis Bilingual Elementary Magnet School
 - Barrio Santa Cruz
 - Barrio Anita
- 483 trees planted

Trees and shrubs are available on a first-come-first-serve basis.

Trees	Shrubs
➤ Ironwood	➤ Grama Grass
➤ Velvet Mesquite	➤ Red Bird of Paradise
➤ Red Push Pistache	➤ Woolly Butterfly Bush
➤ Foothills Palo Verde	➤ Chuparosa
➤ Palo Brea	➤ Flat-top Buckwheat
➤ Desert Willow	➤ Turpentine Bush

Limited Income Rainwater Harvesting Program

- **Help participants through the process**
 - **Qualify participants for the program**
 - **Design RWH system with them**
 - **Work as an agent between family and contractor**
 - **Process TW rebate for them**
 - **Provide participants with**
 - **Grants for up to \$750**
 - **Loan for up to \$2000**
 - **Provide trees and shrubs**
- **Offer RWH Workshops in English and Spanish**
 - **Online and In-person**



Statistics of the program

- **337 Installations**
- **242 Active systems**
- **95 Passive systems**

- **Total grants 276**
- **Total loans 167**

- **Total expenditure \$564,356**
- **Rebates \$374,272**
- **Grants \$93,033**
- **Loans \$85,235**



Limited Income Rainwater Harvesting Program

Income	
≤ 100% FPL	32
> 100% ≤ 200% FPL	34
≤ 30%	121
> 30% ≤ 50%	92
> 50% ≤ 80%	58

Wards	
1	80
2	11
3	34
4	21
5	101
6	45
PC	45



Barriers and successes



Barriers	Successes
<ul style="list-style-type: none">- Inflation increasing the costs- Higher costs result in most households having a loan- Many participants do not want even a small loan right now	<ul style="list-style-type: none">- 337 Low income families benefited from the program- Bulk prices for cisterns- Participants are happy and pleased to be able to collect rainwater- Increasing tree canopy in Tucson



SERI Vision



To create a sustainable world where there is environmental justice and opportunity for all people regardless of economic, ethnic, nationality or gender status.



SERI's Programs

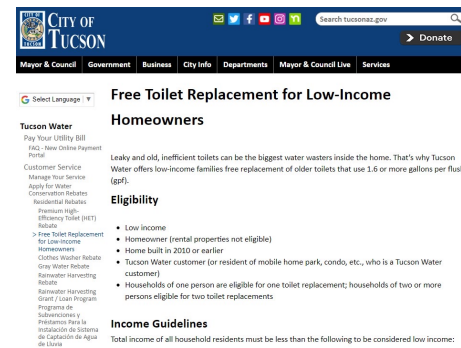
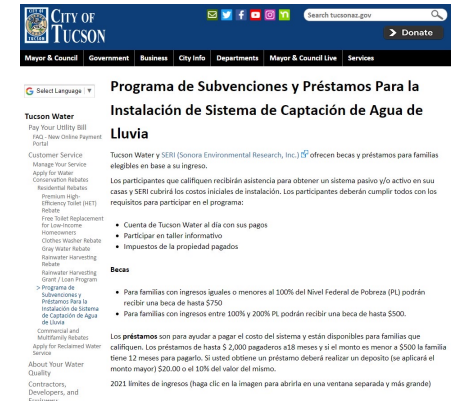
- **Solar Empowerment Program**
- **Energy Efficiency Retrofits Pilot**
- **Healthy Homes Technical Research Study**
- **LEAD Program**
- **Fair Housing Program**
- **NASA Drought Research Study**
- **In September – Gray Water Program and Clothes Washer Rebates**



References/Q&A



- Tucson Water Rebates:
 - Rainwater Harvesting Grant / Loan Program: <https://www.tucsonaz.gov/water/rainwater-harvesting-grant-loan-program>
 - Free Toilet Replacements for Low-Income Home Owners: <https://www.tucsonaz.gov/water/low-income-high-efficiency-toilet-rebate>



- SERI RWH program: <https://seriaz.org/rainwater-harvesting/>



Loan and Grant Program for Limited-Income Families

Given the ongoing drought in the Southwest and the predictions that our climate will continue to get hotter and drier, approaches for cooling urban temperatures (e.g. shade tree irrigation) and more effective water management are increasingly important in our community. Rainwater Harvesting can help our community address the amount of cooling needed in homes and future water supply needs.

The limited-income families in our target area traditionally have fewer resources to purchase and install rainwater harvesting systems and maintain trees. Additionally, there are very few programs in our community that help limited-income families with rainwater harvesting. Through our Limited-Income Rainwater Harvesting Program we are increasing the number of rainwater harvesting systems for limited-income families through loans and grants and teaching workshops (open to the public).



MODERATED DISCUSSION





AUDIENCE Q&A

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LEARN MORE AND SIGN UP

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THANK YOU

FOR MORE INFORMATION EMAIL
CAK@WATERNOW.ORG

WATERNOW ALLIANCE