



## Santa Cruz River Research Days IX March 29 – March 30, 2017

Pima Community College – Desert Vista Campus  
Community Room - 5901 S. Calle Santa Cruz  
Tucson, Arizona 85709



### Purpose

Santa Cruz River Research Days is designed as a venue for learning. We aim to: 1) trigger new research questions; 2) promote networking; 3) catalyze new collaborative projects; and 4) foster awareness of each others' research and conservation efforts. The original vision for Research Days was to allow sharing of experiences and results across institutional barriers and disciplines.

### Background

Santa Cruz River Research Days grew out of a Tumacácori Information and Exchange Day held at the Tumacácori National Historical Park in 2005. There was a break between approximately 2006 and 2008. In 2009, the meeting expanded to include research exchange for the stretch of the river flowing through Santa Cruz County. By 2011, more abstracts were being submitted from the portions of the river in Pima County, and the topical and geographic scope broadened again. The event also shifted from pure research to include outreach and on-the-ground restoration projects. In 2013, the annual event further expanded to two days and formally broadened its scope to include cultural resources. Each change in meeting scope has resulted from growing interest in the event by a myriad of stakeholders. For now, the geographic scope of Research Days is focused on the U.S. Santa Cruz River mainstem. Increasing the geographic focus to include the Mexican portion of the Santa Cruz River is a goal for the future.

### Special Thanks to:

Pima Community College, Desert Vista Campus,  
Culinary Arts Program  
Susan Swanberg, University of Arizona  
Deirdre Brosnihan, Pima County  
2017 Research Days Presenters, Symposium  
speakers, and Attendees

### 2017 Steering Committee

Jason Welborn, Hacienda on the River  
Sherry Sass, Friends of the Santa Cruz River  
Roger Anyon, Pima County  
Sandy Steichen, Pima County  
Claire Zugmeyer, Sonoran Institute  
Amanda Smith, Sonoran Institute  
Pat O'Brien, Southwest Center  
Forrest Sherman, SW Arid Grassland Ecology  
Aaron Stover, Tumacácori National Historical Park

### 2017 Sponsors:

Desert Diamond Casinos  
Pima Community College, Desert Vista Campus  
Pima County Regional Flood Control District  
Pima County Regional Wastewater Reclamation  
Department  
Tucson Water



## CONFERENCE SCHEDULE

Wednesday, March 29, 2017

8:30 - 9:00 am	Sign-in and Refreshments
9:00 - 9:10 am	<b>Welcome</b>
9:10 - 9:30 am	Jerome Hesse - SWCA Environmental Consultants, Inc. <i>Tracking the Footprints of Early Agricultural Farmers in Tucson, Arizona</i>
9:30 - 9:50 am	Ben Changkakoti - Pima County Office of Sustainability and Conservation <i>Lower Santa Cruz River: Identifying Recreational and Economic Benefits of Physical Access</i>
9:50 - 10:10 am	Oliver Lysaght - Borderlands Restoration, L3C <i>A Survey of Public Values and Preferences within the Sonoita Creek Watershed</i>
10:10 – 10:30 am	POSTER INTRODUCTIONS (3-minute introductions)
<b>10:30 - 10:50 am</b>	<b>BREAK</b>
10:50 - 11:10 am	Laura Palacios - National Park Service – Sonoran Desert Network <i>Ten Years of Ecosystem Monitoring at Tumacácori National Historical Park</i>
11:10 - 11:30 am	Daniel Bunting - Harris Environmental Group, Inc. <i>Riparian Vegetation &amp; Macroinvertebrate Monitoring along the Lower Santa Cruz River, Year 4</i>
11:30 - 11:50 pm	Brian Powell - Pima County Office of Sustainability and Conservation <i>Changes in Vegetation along the Lower Santa Cruz River, 2008-2015</i>
11:50 - 12:10 pm	David Brown - Arizona State University, School of Life Sciences <i>Plains of Sonora and other Unique Vegetation on the Santa Cruz Flats, Pinal County, Arizona</i>
<b>12:10 - 1:20 pm</b>	<b>BREAK FOR LUNCH (on your own, cafeteria is great option)</b>
1:20 - 1:40 pm	Ian Dowdy - Sonoran Institute <i>Effluent Keeps the Upper Santa Cruz River Flowing</i>
1:40 - 2:00 pm	Olga Epshtein - Arizona Department of Water Resources <i>ADWR Groundwater Modeling &amp; Data Collection Efforts within the Santa Cruz Active Management Area: Status Update and Future Work</i>
2:00 - 2:20 pm	Susanna Eden - University of Arizona, Water Resources Research Center <i>The Water Resources &amp; Climate Assessment Tool [WARCAT] for the Santa Cruz Active Management Area</i>
2:20 - 2:40 pm	Jennifer Duan – University of Arizona, Civil Engineering and Engineering Mechanics <i>Bed Elevation Changes of the Lower Santa Cruz River</i>
<b>2:40 - 3:20 pm</b>	<b>POSTER SESSION</b>
3:20 - 3:40 pm	Frank Postillion - Pima County Regional Flood Control District <i>Low Hanging Fruit - Methods to Make In-Channel Constructed Recharge on the River a Reality</i>
3:40 - 4:00 pm	Madeline Ryder - Watershed Management Group WaterWRLD Intern <i>Expanding the River Run Network to Restore Flow in the Tucson Basin</i>
4:00 - 4:20 pm	Kieran Sikdar - Watershed Management Group <i>Green Infrastructure Riparian Restoration Demonstration: Midvale Park</i>

## CONFERENCE SCHEDULE

**Thursday, March 30, 2017**

8:30 - 9:00 am	Sign-in and Refreshments
9:00 - 9:10am	<b>Welcome</b>
<b>SYMPOSIUM: AGUA DULCE – THE SANTA CRUZ RIVER HERITAGE PARK (SEE BACK PAGE)</b>	
9:10 - 9:40 am	Timothy Thomure, Tucson Water <i>Main Presentation on the Agua Dulce Proposal</i>
9:40 - 9:55 am	Jim Vint, Desert Archaeology <i>Prehistory of the Area and Known Archaeological Sites</i>
9:55 - 10:10 am	Diana Hadley, Friends of Tucson’s Birthplace <i>History Leading to Current Conditions and Opportunities for Historic Preservation</i>
<b>10:10 - 10:30 am</b>	<b>BREAK</b>
10:30 - 10:45 am	Julia Fonseca, Pima County Office of Sustainability and Conservation <i>Conservation Effluent Pool History, Project Eligibility and Application Process</i>
10:45 - 11:00 pm	Fletcher McCusker, Rio Nuevo <i>Economic Development and Tourism Prospects</i>
11:00 - 11:45 pm	<b>Panel discussion with all symposium speakers</b>
<b>11:45 - 12:45 pm</b>	<b>BREAK FOR LUNCH (on your own, cafeteria is great option)</b>
<b>12:45 – 1:00 pm</b>	<b>FIELD TRIP - Travel Independently to site (pick up a hand out for directions)</b>
<b>1:00 – 3:00 pm</b>	<b>Guided Tour of Paseo de las Iglesias River Park</b>

### Poster Presentations (both days)

Natalie Brassill	University of Arizona, Cooperative Extension <i>Engaging Citizen Scientists in the Santa Cruz River: Monitoring Biological Pollutants</i>
Pankaj Jamwal	Pima County, Information Technology Department GIS <i>Real-Time Environmental Field Data Collection: An Evaluation of Different Geographic Mobile Field Data Collection Applications</i>
Bailey Kennett	UA, School of Natural Resources and the Environment <i>U.S. Bureau of Reclamation Lower Santa Cruz River Basin Study Overview</i>
Sherry Sass	Friends of the Santa Cruz River <i>Sneak Preview of our New Video – Flirting with Disaster</i>
Claire Zugmeyer	Sonoran Institute <i>Living River: Charting Wetland Conditions of the Lower Santa Cruz River Years 2013-2015</i>

### 2017 Research Days Field Trip

Join us for a guided tour of the **Paseo de las Iglesias River Park** – an award-winning restoration project along the Santa Cruz River.

Deirdre Brosnihan, PE, Pima County Regional Flood Control District Project Manager, will lead an approximately 4 mile walking tour on a paved path.

Please pick up a field trip handout for more information and detailed driving directions.

*Water, sun hat, sunscreen, and good walking shoes recommended!*

# Special Symposium: Agua Dulce – The Santa Cruz River Heritage Project

This year's symposium is centered on a concept proposed by Tucson Water. This proposal would utilize a portion of the City's reclaimed water to restore flows in the downtown stretch of the Santa Cruz River. This concept is currently known as "Agua Dulce." Symposium attendees will learn more about this proposal, the history of this stretch of the river, and what such a project will have to consider to be successful.

The symposium includes a primary presentation about the proposal and a series of presentations on related topics. Concluding with a moderated panel discussion, presenters will discuss the idea together and answer questions from the audience. Audience members can participate by submitting questions on cards that are collected throughout the presentations. These questions will be used to help facilitate the discussion.

## Symposium Speakers

**Timothy Thomure – Director, Tucson Water**  
Main Presentation on the Agua Dulce Proposal

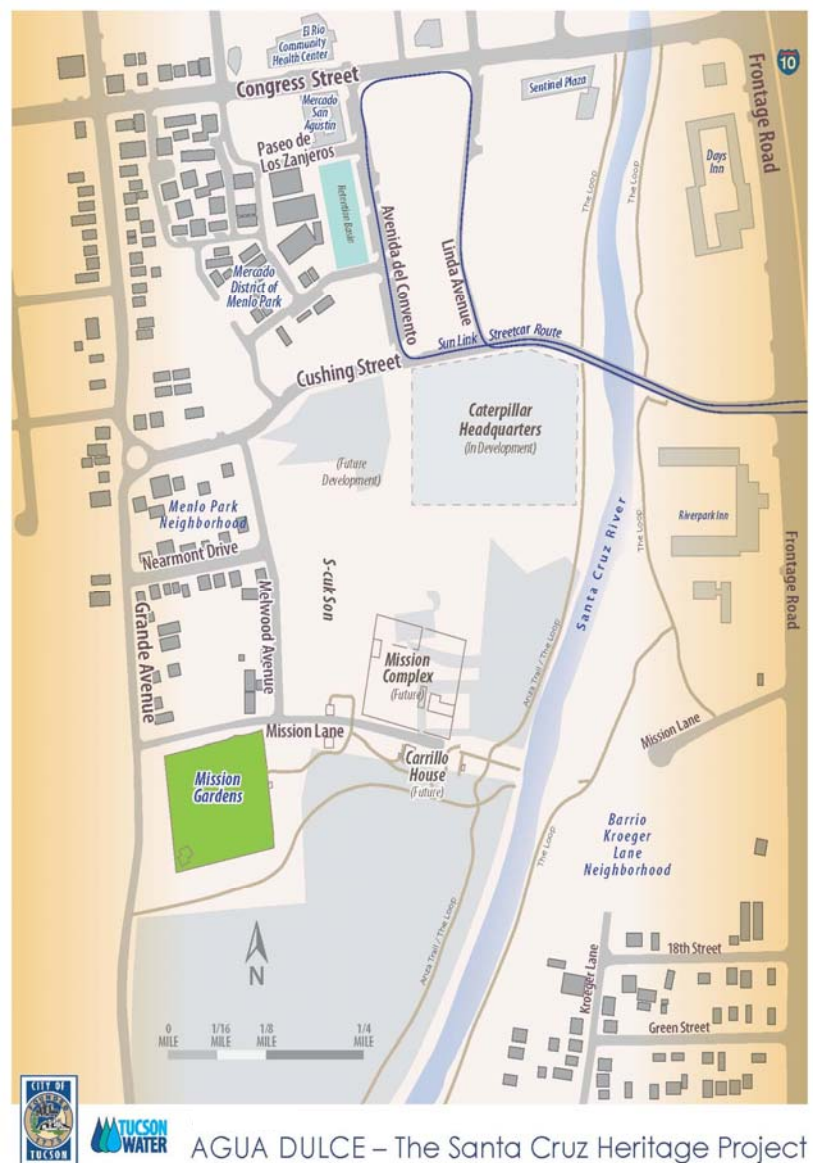
**Jim Vint – Senior Project Director, Desert Archaeology**  
Prehistory of the Area & Known Archaeological Sites

**Diana Hadley – Board Member, Friends of Tucson's Birthplace**  
History Leading to Current Conditions and Opportunities for Historic Preservation

**Julia Fonseca – Environmental Planning Manager, Pima County Office of Sustainability and Conservation**  
Conservation Effluent Pool History, Project Eligibility & Application Process

**Fletcher McCusker – Rio Nuevo Board Chair**  
Economic Development & Tourism Prospects

Moderated by:  
**Susan Swanberg, M.A., M.S., J.D., Ph.D.**  
School of Journalism  
College of Social and Behavioral Sciences



AGUA DULCE – The Santa Cruz Heritage Project  
Area of Interest

Thank You 2017 Steering Committee:



THE UNIVERSITY OF ARIZONA  
**Southwest Center**