



One Water

Educational Outreach Program



WASTEWATER RECLAMATION

Mission



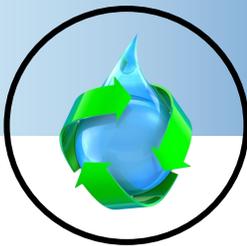
To protect the public health, safety, and environment by providing quality service, environmental stewardship, and renewable resources.

Vision



To be an industry leader in the management and sustainability of the water reclamation cycle and other renewable resources.

What We Do



We protect the public and the environment by recycling the most precious resource, WATER! Pima County uses its highly treated recycled, or reclaimed water/effluent, in a myriad of ways. We replenish the Santa Cruz River with clean and treated water, we also irrigate County parks, golf courses, and ball fields.

Utilizing reclaimed water for irrigation is a highly sustainable action that saves groundwater and Colorado River water for drinking. Reclaimed water is also used to sustain and improve aquatic and wildlife habitats in the Santa Cruz River, for dust control, and for long-term storage in our underground aquifers. Experts from around the world visit Pima County to study the regional reclaimed water system, which demonstrates effective water recycling techniques in the desert.



One Water

The water cycle...Our skies borrow water from our streams, rivers, and oceans, it evaporates and turns into condensation, then the water returns as snow and rain, and replenishes the groundwater flow. Then this astonishing water cycle repeats itself, and Pima County Regional Wastewater Reclamation Department (RWRD) is a part of it...

The water we have today is all the water we will ever have. It's the same water past generations have bathed in, cooked with, and is the same water our grandchildren and their children will utilize. With climate change, population growth, and water scarcity, there is a growing need to manage water resources in a sustainable manner. This water is a precious and finite resource, and in this world of increasing environmental challenges we must protect this finite resource for future generations!

RWRD does just that, and deploys cutting-edge technologies to mine the used water for energy and fertilizer while cleaning it to A+ water standards and returns it back to mother earth, via the Santa Cruz River.





What We Offer

Greetings Teachers!

Pima County Regional Wastewater Reclamation Department (RWRD) is a vital and critical utility that supports our community. RWRD would like to collaborate with our educational partners to build student awareness with our Educational Outreach Program on important local water issues and the water cycle. By teaching students about local water resources, these programs instill a knowledge and appreciation of this finite resource (water) while fostering an understanding of the need to protect our environment and use water wisely.

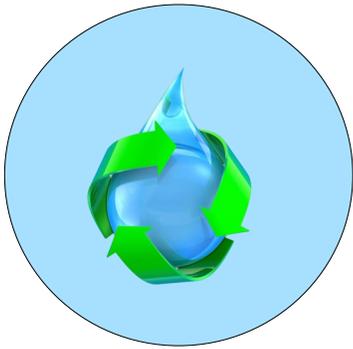
RWRD combines the science, technology, and engineering of our business together with Arizona Science Standards to educate Tucson area students on shared water resources and responsibilities. Our Educational Outreach Program will be a core component of RWRD's community outreach efforts. The goal of this program is to offer opportunities for students, teachers, and the public to enhance their knowledge of key water issues. Education programs offered by RWRD are popular with schools throughout Pima County because they are engaging and they help teachers meet instructional requirements, but more importantly, these programs are free!

Turn the pages to learn how RWRD can become a part of your classroom science curriculum and see how we have collaborated with teachers and school districts in the Tucson area to help students discover science in their own classrooms!

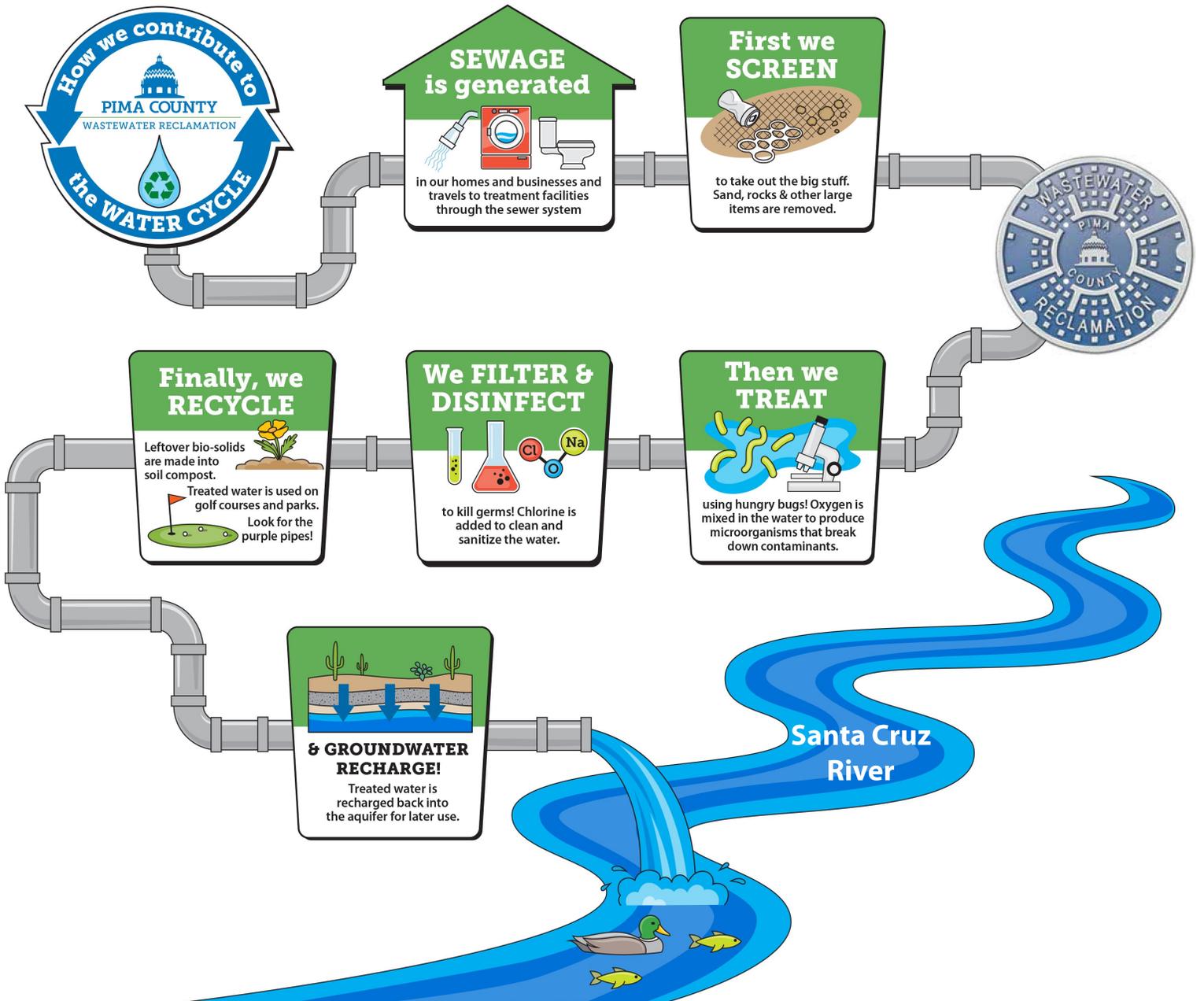


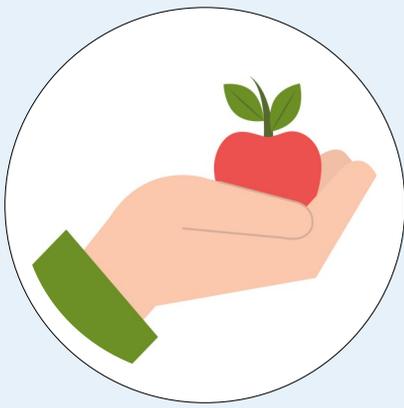
PIMA COUNTY

WASTEWATER RECLAMATION



Collecting a Finite Resource, Cleaning It, and Returning It Back to the Earth





Educational Outreach Program

Water is a precious resource, and RWRD is a utility that takes great pride to protect this finite resource by collecting it, treat it, and returning it back to the earth. RWRD's efforts to educate students about environmental responsibility and the role RWRD utilizes to clean this resource in a highly sustainable manner is our goal! Employees of RWRD want to bring a two-day presentation and hands-on Sewer Science Lab to your schools.

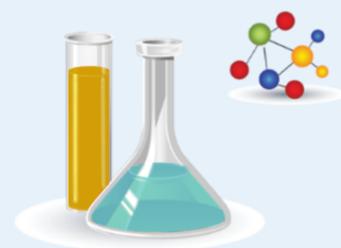
- Day 1: Is an interactive presentation that keeps the students engaged and learn the water reclamation process and how it is part of the water cycle.

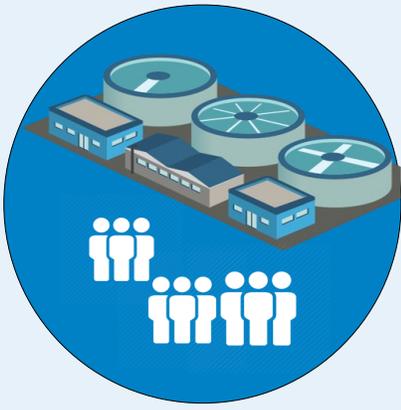
- Day 2: RWRD will bring our Sewer Science Lab to your classroom. Students will experience a lively interactive presentation of the physical, biological, and chemical processes used at a water reclamation facility (treatment plant). Students will also gain an understanding of how reclaimed water plays an important part in our desert region.



Staff and students will discuss all the "Do not Flush" materials that cause sewer backups and blockages in more than 3,500 miles of sanitary sewer lines located in Pima County.

Students will gain an appreciation for how wastewater treatment plants are working to protect, restore, and enhance human health and the environment for future generations.





Public Tours of RWRD Facilities

There is nothing like getting that first-hand experience to make lasting impressions on the water reclamation process and what goes into collecting the used water, cleaning it, and returning back to the earth. Students will see our water reclamation facility and/or our Regulatory Compliance Laboratory in operation to gain a better understanding of the work we do to clean the most valuable resource on Earth – our WATER! The impressive processes and innovative de-



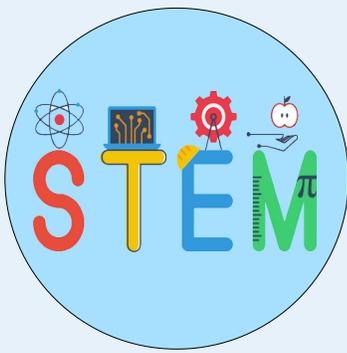
signs used to: 1. Enhance the quality of water treated. 2. See the sustainable measures we take. 3. The safety of our workers are sure to provide you with an experience students will remember.

Teachers of Grades 3 and up are invited to bring their students and tour the facilities.

Sign up today for a guided tour at the Tres Ríos Water Reclamation Facility or our Regulatory Compliance Laboratory to learn the science and technology that goes behind wastewater treatment.



THE TOURS ARE FREE!



Science and Career Fairs

RWRD deploys innovative and efficient technologies to mine the influent stream, we combine science and nature to connect with students and increase public understanding of the water cycle as it relates to RWRD.



RWRD also participates in Career Fairs and work to educate the future workforce into STEM careers, since Science, Technology, and Engineering play a vital role in RWRD.



INVITE US TODAY!

Students will be able to ...

- Explain the basic concepts of how wastewater is treated before returning to the environment and how our sustainable work is part of the water cycle.
- Make a connection between microbiology, chemistry, physics, and environmental science with the below treatment processes:



Primary Treatment (Physical process of settling)

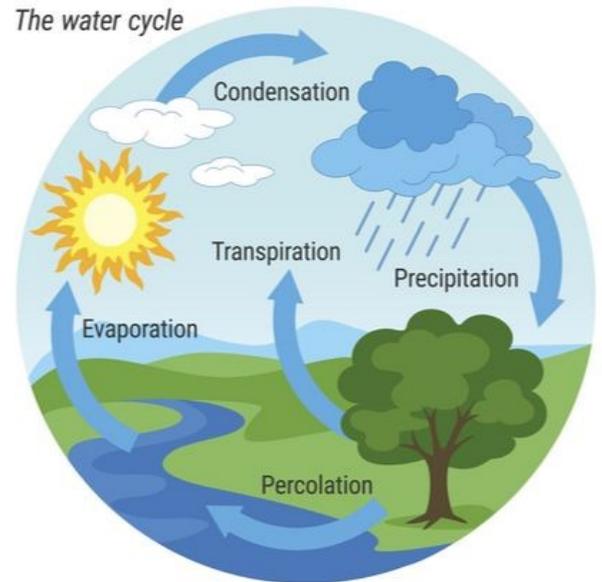


Secondary Treatment (Biological process – using microorganisms to reduce ammonia)



Advanced Treatment (Physical process of filtration and chemical process for disinfection)

- Determine how each process helps clean our wastewater, by learning how to perform water quality testing for pH, ammonia, and chemical oxygen demand (COD).
- Understand the parameters that help maintain a healthy environment in the receiving water, the Santa Cruz River, where our wastewater is discharged after treatment.
- Learn how their behaviors impacts the environment and wastewater infrastructures.
- Learn what kind of STEM careers are available in our industry!



Call or Email Us Today!

Schools/Teachers interested in RWRD's School Educational Outreach Program may contact:

RWRD—Community Relations Office
Phone: (520) 724-6500
Email: Caroline.vargas@pima.gov



Pima County Board of Supervisors

Richard Elias, Chairman, District 5

Ally Miller, District 1

Ramon Valadez, District 2

Sharon Bronson, District 3

Steve Christy, District 4

Pima County Administration

Chuck Huckelberry, Pima County Administrator

Jan Leshner, Chief Deputy County Administrator

Tom Burke, Deputy County Administrator For Administration

Carmine DeBonis Jr., Deputy County Administrator for Public Works

*For more information visit us at
www.pima.gov/wastewaterreclamation