

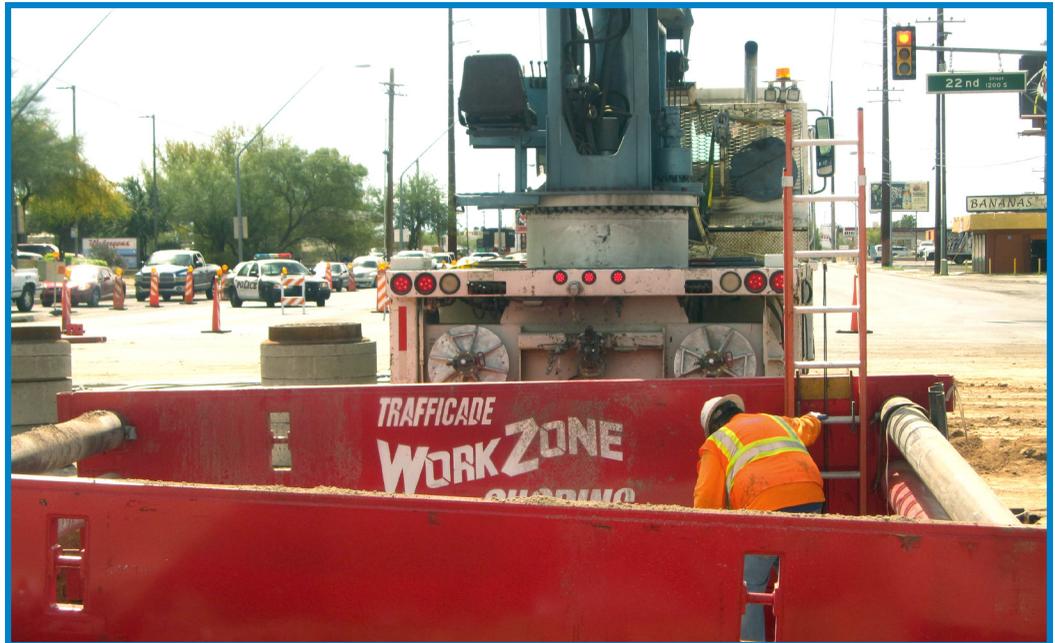
Sewer Infrastructure Improvements Continue

In 2014, the Pima County Regional Wastewater Reclamation Department (RWRD) completed the Regional Optimization Master Plan (ROMP), which enabled the Department to meet current environmental regulatory requirements mandated by the Clean Water Act. As a result of ROMP, RWRD is now producing extremely high-quality reclaimed water at all of our water reclamation facilities.

As we move into the post-ROMP era, the Department is now focused on investing in its aging infrastructure – specifically, the sewage conveyance system. The conveyance system consists of over 3,400 miles of sewer pipes that transport the community’s wastewater to two metropolitan water reclamation facilities and six sub-regional facilities throughout Pima County. System improvements consist of rehabilitating or replacing older sewer pipes and constructing new lines to meet the demands of growing populations and new developments that have placed a burden on the sewer system. RWRD recently completed the 22nd Street Augmentation Project and will soon begin the Southeast Interceptor (SEI) Sewer Augmentation Project.

22nd Street Augmentation

RWRD contracted with KE&G Construction, Inc. to add capacity to a section of the public sanitary sewer system on 22nd Street between Alvernon Way and Swan Road. The goal of the five-month project, which took place between March 1 and August 1, 2016, was to increase sewer volume and improve the lifespan of the sewer infrastructure in the area. The project included the installation of 5,376 feet of new 12-inch pipe, the removal of 1,933 feet of aging 8-inch pipe, and rehabilitation of the existing 10-inch sewer.



Work began for the 22nd Street Augmentation project on March 3, 2016.



RWRD Employees work on installing new sewer pipes for the 22nd Street Augmentation project.

Southeast Interceptor Sewer Augmentation Project

The Southeast Interceptor Sewer (SEI) augmentation project will upgrade a portion of the existing Southeast Interceptor to address capacity limitations between Simpson Street and 36th Street. The project, slated to commence in Spring of 2016, will provide over 12,000 linear feet of new sewer pipe and will include drainage improvements, odor control facilities, asphalt paving and waterline relocations. Ultimately wastewater flows from a new Old Nogales Highway interceptor, including

Chair's Message

This was a very significant year for the Regional Wastewater Reclamation Advisory Committee (The Committee). The Committee reviewed, evaluated, and provided critical analysis and substantive commentary on issues and projects that the Regional Wastewater Reclamation Department (RWRD) has been involved in. This Annual Report summarizes some of the issues and projects that the Committee and the Department were involved in during Fiscal Year 2015/16.

A major focus this past fiscal year was on the Financial Plan. RWRD and the Finance and Risk Management Department (FRMD) provided several updates to the Committee pertaining to potential fee structures, with a specific focus on user fees and connection fees. At the August Board of Supervisors (BOS) meeting, the RWRD Financial Plan recommended two, three percent user fee increases. A three percent connection fee increase was added to the rate increase proposal. Per the BOS request ultimately, the Financial Plan was not approved for the connection or user fee increases. After that, extensive discussions ensued about bond ratings, revenues, expenses, debt ratios, and the Department's capital projects. The Financial Sub-Committee met with the FRMD and vowed to work on a more standardized methodology of receiving financial information, one that could be used annually, and will be in place when the Department begins negotiations for future rate increases.

Another focus was the Pima County Code Chapter 13.24 Ordinance Revision. Many RWRD staff members worked very hard on a document that had not been revised since the 1980s and the Committee provided

invaluable recommendations pertaining to dye tests, the winter quarter average, strength factors, overdue fee calculations, and other factors that could be incorporated into this ordinance, which was used as a basis for future discussions on recommended rate increases.

The Committee received regular updates and presentations on other significant RWRD-related matters throughout the year, such as: Effluent Generation and Utilization, Living River, Regional Water Assessment, Pre-Treatment Programs, System-Wide Odor Control, Local Drought Impact Group updates, Conveyance System Rehabilitation Projects, Biosolids Handling, and the collaboration with the University of Arizona on the Water Energy and Sustainability Technology laboratory expansion at WESC. RWRD staff and guest speakers have kept the Committee well-informed on a number of topics.

As we close out Fiscal Year 15/16 and begin Fiscal Year 16/17, I want to take a moment to thank the Committee for the good work that we have accomplished together. I look forward to the opportunities that lie ahead, and to continued collaboration with all partners involved.



A handwritten signature in black ink that reads "Mark F. Taylor".

Mark Taylor, Chair

Director's Message

The RWRAC (The Committee) continued providing advice and guidance in the area of policy and financial planning. This year the Committee formed a sub-committee to focus attention and understanding of the Department's CIP Program. The sub-committee met with staff on numerous occasions to learn how the Department developed and identified capital improvement projects, as well as how they were ranked and prioritized. The sub-committee was impressed with the CIP process and believes the Department has a good program in place for capital planning.

The Committee spent a tremendous amount of time working with the Department, as well as the FRMD, in more closely learning the differences between the various types of debt service ratios and their respective relevance in consideration for potential user fee rate increases.

Based on the many detailed presentations and discussions led by FRMD, the Committee once again supports and endorses the Financial Plan which recommends a 4 percent user fee rate increase.

The Committee is very interested in pursuing a user fee rate study that will focus on future potential rate increase needs, as well as an evaluation of the formula

used to calculate user fee bills and the proportion of fixed fees versus variable fees. The study is scheduled to be completed by mid FY 16/17.

The Committee and RWRD accomplished a lot this year. I truly appreciate the Committee's ongoing efforts and their continued support, as well as providing guidance and oversight with other key activities of the Department. RWRD continues to maintain the Department's mission to protect the public's health, safety, and environment, and with the Committee's assistance, we will continue to address any issues that arise in the coming year. On behalf of the Department, I thank the Committee for their continued support and look forward to another eventful year!



A handwritten signature in black ink that reads "Jackson Jenkins".

Jackson Jenkins, Director

Fiscal Year 2015/16 Awards

Each year, the National Association of Clean Water Agencies (NACWA) recognizes the commitment of member agencies in the clean-water community through its Peak Performance Awards. These awards acknowledge excellence in wastewater treatment, through compliance with the National Pollutant Discharge Elimination System (NPDES) permit requirement limits, in meeting clean water discharge standards.

As a multi-year Platinum Peak Performance honoree, RWRD was recognized in a video presentation during an evening awards ceremony on Monday, July 11, 2016, during the NACWA Utility Leadership Conference & 46th Anniversary Annual Meeting, "Leadership Strategies for the Smart Utility," held at the Grand Hyatt Hotel in Denver, Colorado.

Platinum Awards: 100% compliance with no NPDES permit violations for a consecutive five year period.

Platinum Award:

- Avra Valley Water Reclamation Facility
- Green Valley Water Reclamation Facility
- Mt. Lemmon Water Reclamation Facility

Gold Awards: 100% compliance with no NPDES permit violations one year.

Gold Award:

- Agua Nueva Water Reclamation Facility
- Tres Ríos Water Reclamation Facility

Since 1998, RWRD has received a total of 73 NACWA awards.

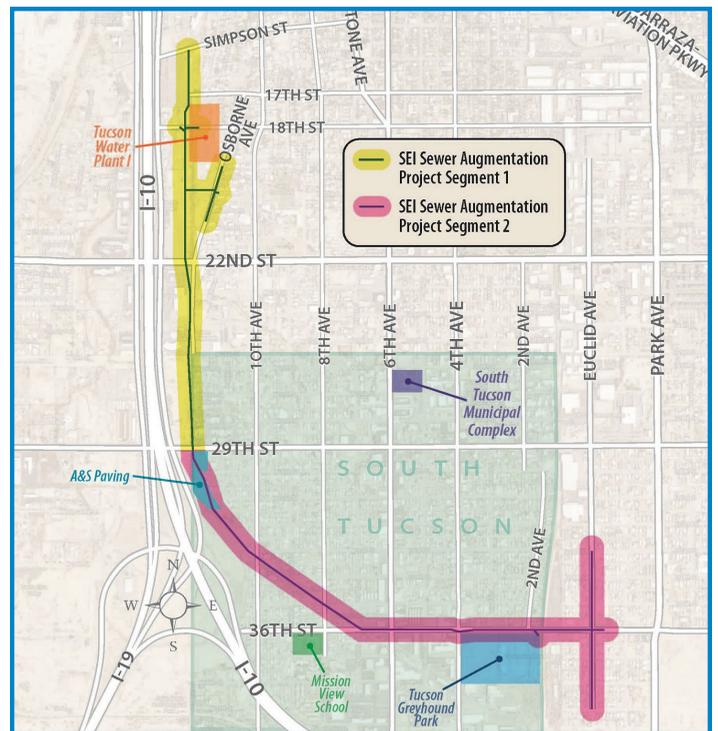


Above from Left to Right: Award winning facilities of Avra Valley WRF, Green Valley WRF, and Mt. Lemmon WRF

"INFRASTRUCTURE" FROM PAGE 1

developments along the planned Aerospace Corridor, will also be conveyed by the SEI project. KE&G Construction, Inc. is also the contractor that will be working on this project.

The purpose of the Augmentation Program is to provide needed capacity to serve future customers and fix bottlenecks in the system. Several major projects are planned in the near future, including the Aerospace Corridor and Speedway/UA Augmentation Project. Implementation of these projects will enhance the overall reliability of the conveyance system, provide service to new customers, and ensure RWRD's compliance with Arizona Department of Environmental Quality's Capacity Management Operations and Maintenance (CMOM) requirements. These projects will also enable RWRD to successfully address its goals of providing quality service, pollution prevention, and public health and safety protection for current and future generations of Pima County residents; and enhancing the sustainability of our community and our associated lifestyle through operations and maintenance of the Conveyance System.



Southeast Interceptor Project Map.

2016 Financial Plan

One of the main functions of the Regional Wastewater Reclamation Advisory Committee (RWRAC) is to review RWRD’s annual Financial Plan and provide guidance to the Department and to the Pima County Board of Supervisors. In collaboration with Pima County Finance and Risk Management, the RWRAC’s Financial Sub-committee reviews the plan and reports back to the full committee at regular meetings. This review is crucial in determining the optimal sewer rates needed to ensure that the Department has sufficient revenues to meet all operating and maintenance expenses, debt service payments, required reserves, and to maintain an adequate debt service ratio to obtain favorable bond ratings.

The 2015 Financial Plan included a recommendation for three annual rate increases at four percent beginning July 1, 2015; however, the recommendation was not approved by the Board of Supervisors. There have been no rate increases since July 2013. System revenues continue to decline while operating costs and debt service payments continue to increase.

User Fee Revenue Decline

A factor that must be considered in determining future revenue projections is the recent downward trend in the amount of sewage flowing into the treatment plants (influent). As Table 1 details, the annual influent flow has been decreasing since Fiscal Year 2009, negatively impacting the billings for the volume rate component within the user fee calculation. The amount billed is based on an average water usage taken from the months of December, January, and February, also known as the winter quarter average. As the monthly water consumption decreases, the amounts billed and collected also decrease. Based on the review of user fee revenues for the past five years, this downward trend has decreased revenues on average by approximately 1.8 percent. This is consistent with the experience of the water providers who serve the area and have been reporting decreases in water usage. The trend in reduced volume can be attributed to an increased focus on water conservation efforts. In general, people are using less water, more households are using high efficiency appliances, and more homes and businesses are equipped with low-flow toilets.

Table 1: Decreasing Influent

| Fiscal Year | Total Influent (in Millions of Gallons) | Annual Percentage | Cumulative Decrease Since 2009 |
|-------------|--|-------------------|--------------------------------|
| 2009 | 23,851.95 | 0.00% | |
| 2010 | 23,348.57 | -2.11% | -2.11% |
| 2011 | 22,797.57 | -2.36% | -4.42% |
| 2012 | 22,701.13 | -0.42% | -4.82% |
| 2013 | 22,236.45 | -2.05% | -6.77% |
| 2014 | 21,798.15 | -1.97% | -8.61% |
| 2015 | 21,911.68 | -0.52% | -8.13% |

Overall, Fiscal Year 2014-2015 revenues saw a decrease from the prior fiscal year due to reduced volume usage, despite the increase in population growth. Fiscal Year 2015-2016 revenues, are also expected to decrease by about one and a half percent from \$174 million to \$171.4 million: \$158.6 million (or 93 percent) derived from sewer user fees, \$11.4 million derived from connection fees and \$1.4 million derived from other revenues. From Fiscal Year 2016-2017 through Fiscal Year 2019-2020, user fee revenues are expected to remain relatively flat if rate increases are not approved.

RWRAC Recommendation for 2016 Financial Plan

During fiscal year 2015-2016, the Finance and Risk Management Department met regularly with the Financial Sub-committee of the RWRAC. The Financial Sub-committee moved and approved the following recommendation at its April 15, 2016 meeting.

We support the findings and recommendations outlined in the 2016 Financial Plan, which identifies current and future revenue shortfalls for the Department. We recognize the urgency for a revenue increase as early in calendar year 2017 as possible. We further recognize a Rate Study is underway, which is necessary to equitably allocate the cost of providing service. Therefore, we recommend an initial 4 percent revenue increase to take effect as early as possible in calendar year 2017. The Committee also recommends revenue increases for fiscal year 2017/2018 and beyond, consider the methodology and findings of the Rate Study and future financial plans.

The RWRAC moved and approved this recommendation at its April 21, 2016 regular meeting.

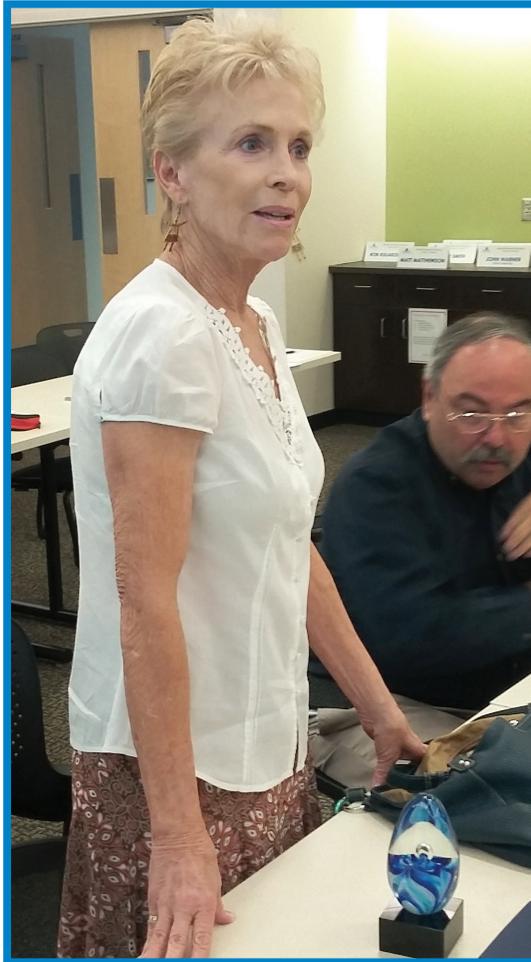
Barbee Hanson Steps Down After Years of Service

In March of 2016, **Barbee Hanson** resigned from the Regional Wastewater Reclamation Advisory Committee (RWRAC) after nearly nine years of service. Barbee's extensive engineering background rendered her the perfect candidate for committee membership.

Since 1979, Barbee has worked in various private engineering firms where she became proficient in land and subdivision planning. In 2000, she was appointed to the Pima County Design Review Committee which she chaired and co-chaired for nine years. In this capacity, she reviewed special projects for code compliance, aesthetics, and compatibility to surrounding projects and existing development.

While serving on the Design Review Committee, a project requiring the approval of a 208 Plan Amendment came to the attention of the Design Review Committee. If approved, the project would have allowed for the construction of a private water reclamation facility. This type of approval was rare, and Barbee had never heard of it happening in Pima County.

Fortuitously, it was at a Southern Arizona Home Builders Association (SAHBA) breakfast that Barbee spotted Pima County Administrator **Chuck Huckelberry**, and approached him to discuss the project. The late **Supervisor**



Barbee Hanson thanks the Committee after receiving an award recognizing her hard work and dedication to the RWRAC.

Ann Day happened to overhear their conversation, and impressed with Barbee's understanding of complex wastewater-related issues, requested her service on the RWRAC on the spot! In keeping with her firm's commitment to volunteerism, she accepted.

As a RWRAC member, one of Barbee's proudest accomplishments occurred during the ROMP project when she and the late **John Carlson** were instrumental in convincing the Board of Supervisors (BOS) to adopt RWRD's Financial Plan as submitted. As she understands it, it was the only time the BOS accepted a plan, with rate increases, as is.

Barbee really enjoyed her time on the RWRAC, and said, "It was a pleasure to be on the committee with such a knowledgeable group of very hard-working professionals. We all brought our own expertise to the table, and I left knowing a lot more about financial plans than I ever imagined I would."

Now that she and her husband are retired, they plan to travel---a lot! They have visited Pennsylvania by plane, California by train, and are

preparing to leave for Montana. RWRD Director **Jackson Jenkins** and the entire RWRAC and staff thank Barbee for her exemplary service.

2015/16 Regional Wastewater Reclamation Advisory Committee

District 1

Barbee Hanson
Robert Iannarino

District 2

Sheila Bowen
Armando Membrila

District 3

John Lynch
Amber Smith

District 4

Bill Katzel
Charles Matthewson

District 5

Rob Kulakofsky
Ann Marie Wolf

Citizens' Water Advisory Committee

Mark Taylor

Arizona Water Association

Mark Stratton

Ex-Officio

Jackson Jenkins, *Director*, RWRD
Timothy Thomure, *Director*, Tucson Water

Environmental Planning Advisory Committee (EPAC)

Mead Mier

The Regional Wastewater Reclamation Advisory Committee (RWRAC) was established by the Pima County Board of Supervisors in 1986 to act as its official advisory body on wastewater management matters.

The RWRAC is charged with advising RWRD on program and policy decisions, as well as short- and long-term operating and Capital Improvement Program funding needs and the annual Financial Plan. During the last fiscal year, the RWRAC discussed and acted upon a number of issues of importance to Pima County as described in this report.

RWRAC Meeting Highlights: July 2015 - June 2016

July 2015: No meeting was held.

August 2015: **Ordinance 13.24** was re-written and the final proof was presented by the Department at the November RWRAC meeting. RWRD Director **Jackson Jenkins** provided Departmental updates on biosolids and the Continental Ranch Pump Station rehabilitation. The BOS voted against connection fee and user fee increases at its August 17 BOS meeting. **Patrick McGee**, Admin Support Services Manager, Finance and Risk Management Department (FRMD), provided a financial update. RWRAC Vice Chair, **Ann Marie Wolf** discussed and distributed materials on the *Living River Report, Year 2*. Jim DuBois, RWRD Hydrologist, gave a PowerPoint presentation on the **2015 Effluent Generation and Utilization Report**. **Mead Meier**, Pima Association of Government (PAG), gave a PowerPoint presentation on the *Regional Water Assessment Task Force*. **Jason Grodman**, IWC Inspector, provided a PowerPoint presentation on the *Pretreatment Program*.

September 2015: No meeting was held.

October 2015: The **Financial Sub-Committee** (FSC) discussed Departmental revenues and the rate-making process. A motion was passed to have the RWRAC meet monthly during the budget-making process. Director Jenkins reported on several Conveyance system rehabilitation projects, the Mt. Lemmon Wastewater Treatment Plant Study, provided information on the status of the *FY2015/16 Capital Improvement Program* and the *Capital Improvement Projections for FY 2016-17*. Mr. McGee presented the *Forecast Report for the FY15/16 Budget*. **Carol Johnson**, Sanitary Engineering Manager, presented a PowerPoint pertaining to *Updated RWRD Engineering Standards*. **Kathy Chavez**, Admin Support Services Manager, presented a PowerPoint on the *Pima County Local Drought Impact Group*. **John Warner**, RWRD Deputy Director, Conveyance Division, presented a PowerPoint on *System-Wide Odor Control*.

November 2015: Director Jenkins reported on solids handling at Tres Ríos, solar projects in Green Valley and Corona de Tucson, the grand opening of the lab expansion at WESC. Mr. McGee's *Financial Update* provided a breakdown of projected expenses of \$83.7 million which is \$763,000 under budget for FY 2015/16. The FSC met in September, October and November to discuss goals, fee calculation methodologies, and how rates are established. **Keith Dommer**, Director, FRMD, provided information regarding *RWRD Enterprise Fund* financial projections through 2020.

December 2015: Director Jenkins gave updates on Departmental operations. Discussions about ROMP and the \$17 million North

Rillito Interceptor project ensued. The RWRAC reviewed the **Ordinance 13.24 Revision** which will be used for future discussions on proposed rate increases. **Jennifer Coyle**, Special Assistant to the Director, provided an update on proposed amendments within the Ordinance. The FSC discussed a revised rate workbook, a review of administrative overhead charges, the FY2009/10 to FY2015/16 O & M Budget, and a review of debt issuances and obligations. The **Capital Improvement Program (CIP) Sub-Committee** presented the charter process and the CIP schedule.

January 2016: The CIP Sub-Committee scrutinized the *CIP Five-Year Plan* regarding Treatment, Conveyance, and Augmentation projects. Motions were made to approve the five-year CIP, as is, and to prepare the CIP budget with minor changes. **John Lynch**, FSC Chair, stated a **rate study** has not been done in almost a decade, and should be performed with outside intervention to assist with developing policy. **Tom Burke**, Deputy County Administrator, discussed junior debt, senior debt and bond covenants.

February 2016: Director Jenkins indicated that the BOS approved the revised Ordinance *Engineering Design Standards 2016*. He provided a presentation about a rate study, indicating that there had been no rate study in over ten years. RWRD provided a draft *Sewer Rate Study* scope of work that included the **Overview, Scope of Services, Study Objectives, Study Requirements, and Expectations of the Consultant**. Ms. Wolf made a motion, and RWRAC member **Armando Membriia** seconded, to recommend a rate study be conducted.

March 2016: Director Jenkins discussed the *High Plains Constructive Recharge Project* and that water may not reach the high plains along the river if the effluent is removed from the Tres Ríos Water Reclamation Facility. Mr. McGee, in his Financial Update, indicated RWRD is staying within its \$84.4 million O&M budget.

April 2016: Director Jenkins discussed **RWRD's Pillars: Employees, Sustainability, Customers, Financial, Safety and Compliance**. The BOS will review the updated **13.20 and 13.24 Ordinances**. FSC Chair Mr. Lynch followed up on jurisdictional funding of economic development. The FSC moved to approve the 2016 Financial Plan. Mr. McGee stated that the Department was staying under budget for expenses; however, revenue decreases are out of RWRD's control.

May 2016: No meeting was held.

June 2016: No meeting was held.

Regional Wastewater Reclamation Advisory Committee Fiscal Year 2016/17 Meetings

August 25, 2016
September 22, 2016
October 27, 2016

November 17, 2016
December 15, 2016

January 26, 2017
February 23, 2017
March 23, 2017

April 27, 2017
May 25, 2017
June 22, 2017

General Regional Wastewater Reclamation Department activities can be viewed on the department's website:

www.pima.gov/wastewaterreclamation

To view agendas and minutes from the Regional Wastewater Reclamation Advisory Committee visit the department's webpage and click on the right sidebar button:

Boards, Commissions & Committees

Regional Wastewater Reclamation Advisory Committee meetings are held monthly on the fourth Thursday (with the exception of November and December due to the holidays) at 8:00 a.m., at the Water Campus, 2955 W. Calle Agua Nueva, Tucson. Times and dates are subject to change.

Committee Coordinator:

Veronica Lopez - 724-6509, (veronica.lopez@pima.gov)