

2008 Effluent Generation Report



**We can't
afford to waste
a single drop**



**Pima County
Regional Wastewater Reclamation Department**

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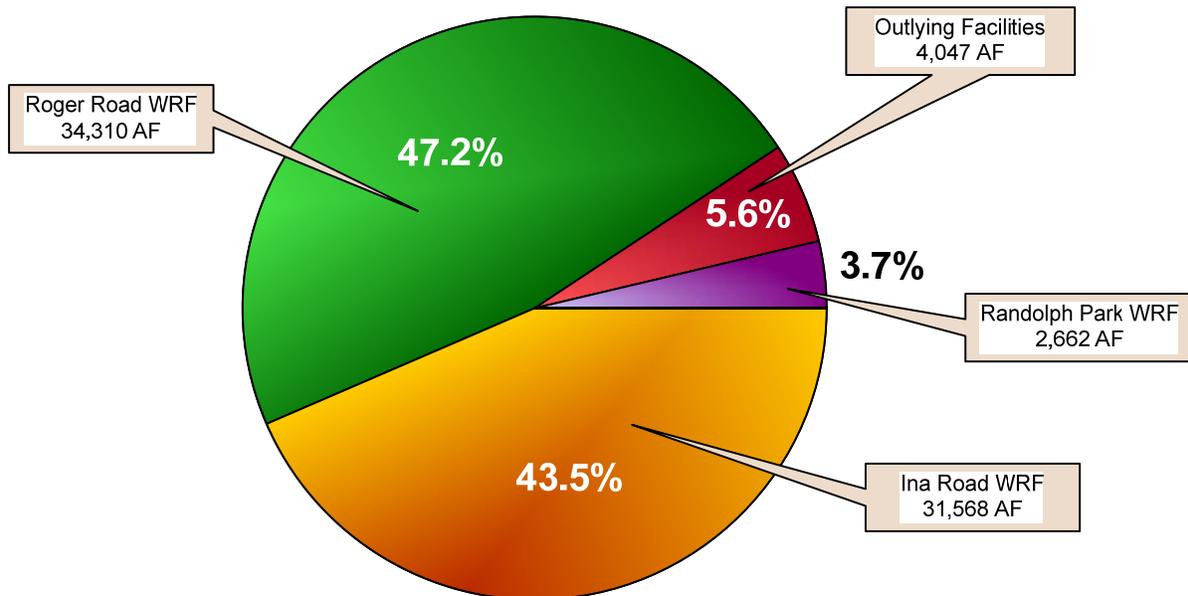
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I. Executive Summary

The Pima County Regional Wastewater Reclamation Department (RWRD) is dedicated to the goal of protecting public health and the environment in a sustainable manner for the benefit of our current citizens and future generations. RWRD meets this commitment through the significant usage of reclaimed water for groundwater recharge, reuse, and environmental restoration throughout the community. Our activities in this regard aid in mitigating demand on potable water systems thereby sustaining groundwater levels and preserving green infrastructure throughout our community.

RWRD operates 11 treatment facilities, and this report provides a narrative description of the different wastewater treatment processes used at each facility along with the quantity of wastewater received and the amount of effluent produced. During calendar year 2008, RWRD facilities treated wastewater to produce a total of 72,587 acre-feet (AF) of effluent. Figure 1 shows the contributions to total effluent generation in 2008 by RWRD facilities. Ina Road Wastewater Reclamation Facility (WRF), Roger Road WRF and Randolph Park WRF represent the metropolitan facilities identified by the 1979 Intergovernmental Agreement (IGA) between the City of Tucson (COT) and Pima County (PC). Metropolitan facilities generated the majority of effluent with total production at 68,540 AF. Non-metropolitan, outlying facilities accounted for the remaining portion, totaling 4,047 AF.

Figure 1: 2008 Pima County Effluent Generation

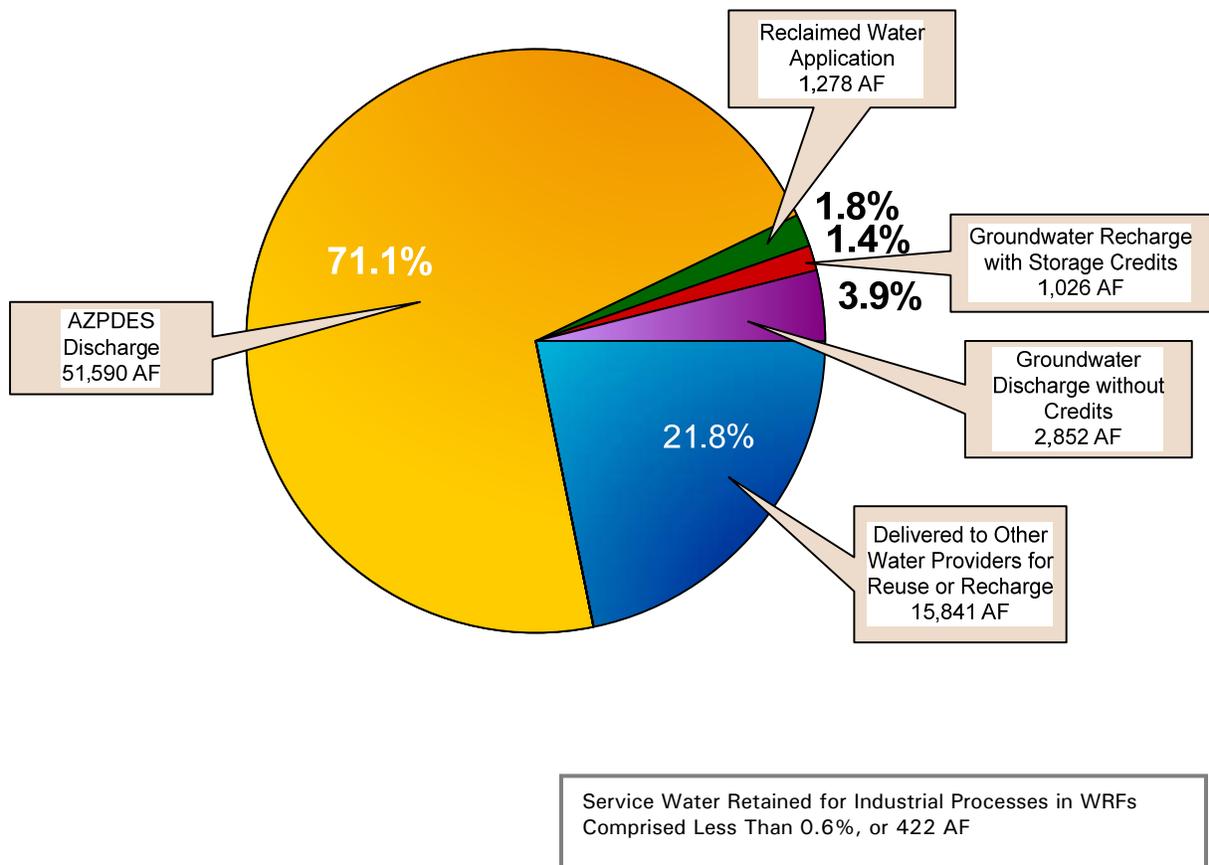


I. Executive Summary (Continued)

The 1979 IGA and subsequent agreements govern effluent entitlement and this report describes how PC’s effluent entitlement is used. In 2008, 68,540 AF of effluent was distributed from the metropolitan facilities with 28,200 AF designated for the Bureau of Reclamation to manage under Southern Arizona Water Resources Act (SAWRSA). 36,306 AF were accorded to the COT and other water providers, and 4,034 AF retained by PC.

Effluent generated at RWRD’s facilities is utilized in a variety of beneficial uses including irrigation, dust control, groundwater recharge and industrial reuse. Most of the irrigation reuse occurred at County parks or at the Kino Environmental Restoration Project (KERP). RWRD also stored reclaimed water underground at several groundwater recharge facilities in 2008. As a result, PC will receive 677.60 AF of managed recharge credits for its share of effluent discharged into the Lower Santa Cruz Managed Recharged Project (LSCMRP) and an additional 348.29 AF for the Marana High Plains Effluent Recharge Project (MHPERP). The balance of effluent is disposed of through surface water discharges under the authorization of an Arizona Pollution Discharge Elimination System (AZPDES) permit. Figure 2 illustrates the distribution of effluent among the various uses.

Figure 2: 2008 Effluent Usage



II. Effluent Generated at Regional Wastewater Reclamation Facilities

A. Metropolitan Facilities

1. Ina Road Water Wastewater Reclamation Facility

The Ina Road WRF is located in the northwestern part of the Tucson basin and serves Oro Valley, Marana and the northwest portions of Tucson. The original facility was constructed in 1979 as a 25 Million Gallons per Day (MGD), Class B, high-purity oxygen activated sludge process. Capacity at this facility was increased in 2006 with the addition of a 12.5 MGD, Biological Nutrient Removal Activated Sludge process producing Class B+ effluent, thereby increasing the overall combined plant capacity to 37.5 MGD. Chlorination is the disinfection method used at this facility and dechlorination is conducted prior to discharge.

The Ina Road facility discharges into the Santa Cruz River under authorization of an AZPDES permit. On-site irrigation and dust control occurs in accordance with a Type II Reuse general permit. Effluent discharged into the Santa Cruz River is conveyed to the Lower Santa Cruz Managed Recharge Project (LSCMRP) which extends along the river channel from Cortaro Road to Trico Road. Groundwater storage credits are issued from the Arizona Department of Water Resources (ADWR) for half of the effluent that reaches the water table. Credits are apportioned among participants in the LSCMRP in accordance with IGAs that recognize each party’s entitlement.

Source	Description	Volume AF	Volume MG
Influent	Sewage received by WRF	32,191.95	10,489.78
AZPDES Discharge	Outfall to Santa Cruz River	31,545.68	10,279.19
Reuse On-site	Construction and dust control	22.16	7.22
Process Water	Used in industrial process at WRF	77.11	25.13

2. Roger Road Wastewater Reclamation Facility

The Roger Road WRF is located on the west side of Tucson and serves the greater Tucson metropolitan area. It is currently RWRD’s largest facility with a capacity of 41 MGD. It produces Class B reclaimed water utilizing chlorination for disinfection. While some effluent is used for on-site irrigation the majority of effluent is delivered to the COT for use in their reclaim water system and groundwater recharge. Remaining effluent is then dechlorinated prior to discharge into the Santa Cruz River under the authorization of an AZPDES permit. Effluent is also used to convey biosolids to Ina Road WRF for further processing.

II. Effluent Generated at Regional Wastewater Reclamation Facilities (Continued)

A. Metropolitan Facilities (Continued)

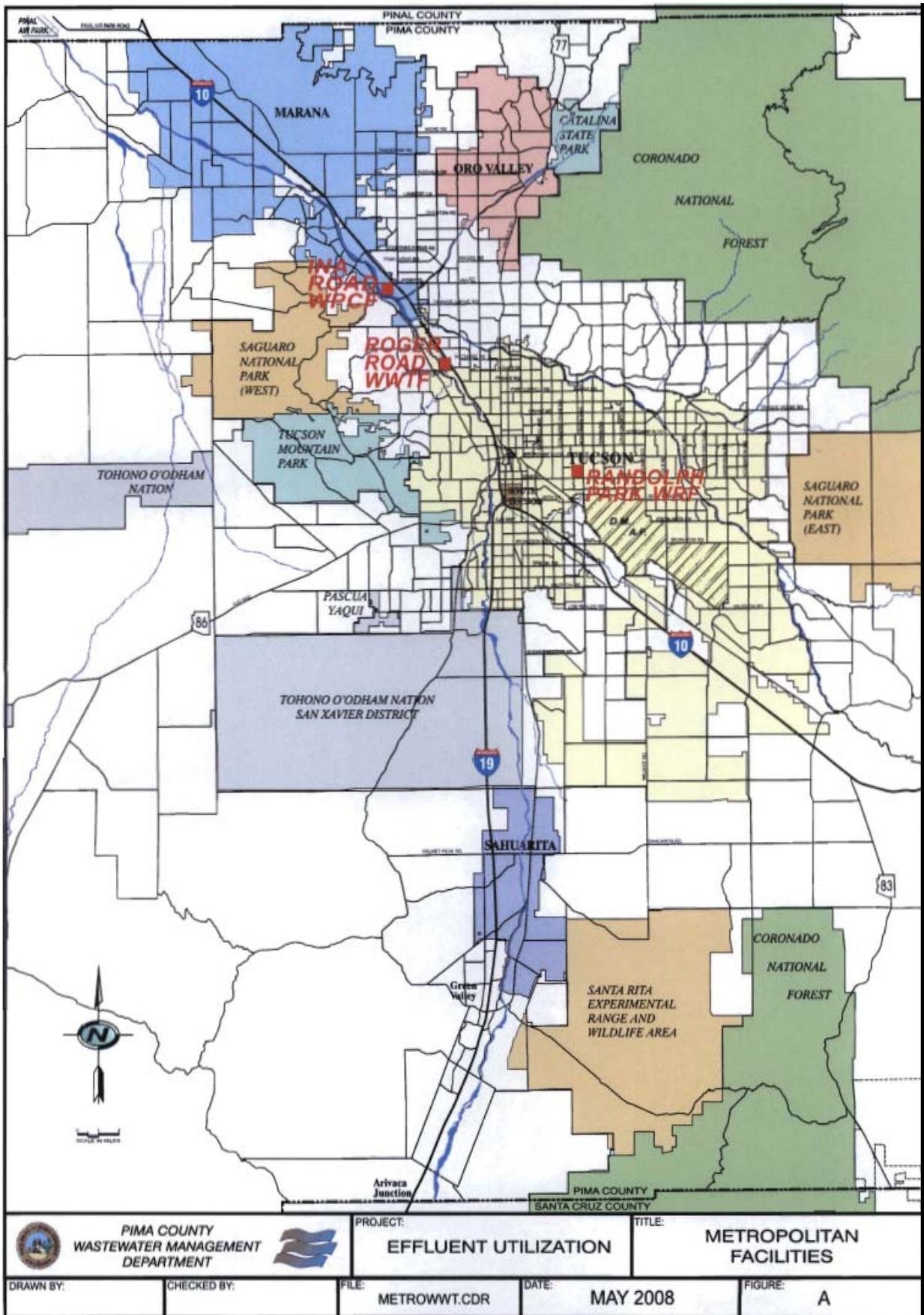
2. Roger Road Wastewater Reclamation Facility (Continued)

Source	Description	Volume AF	Volume MG
Influent	Sewage received by WRF	36,823.61	11,999.01
AZPDES Discharge	Outfall to Santa Cruz River	21,691.17	7,068.09
Delivered Reclaimed Water	Input to COT Reclaimed System	12,503.00	4,074.10
Reuse On-site	Irrigation at WRF	116.34	37.91
Process Water	Biosolids flush water and other industrial process at WRF	207.91	67.75

3. Randolph Park Wastewater Reclamation Facility

The Randolph Park WRF is located in midtown Tucson at the City-owned Randolph Park. This is a 3.0 MGD membrane bioreactor facility and utilizes ultraviolet light disinfection system. This facility produces Class A effluent that is delivered directly into the COT’s Reclaimed Water System.

Source	Description	Volume AF	Volume MG
Influent	Sewage received by WRF	2,973.56	968.94
Delivered Reclaimed Water	Input to COT Reclaimed Water System	2,661.62	867.29
Reuse On-site	Irrigation at WRF	0.26	0.08
Process Water	Used in industrial process at WRF	103.27	33.65



II. Effluent Generated at Regional Wastewater Reclamation Facilities (Continued)

C. Metropolitan Facilities Historical Data

Historical Influent and Effluent Volumes by Metropolitan Treatment Facility

	Influent Received AF	Effluent Reused On-site at County WRFs AF	Effluent Discharged or Delivered to Reclaimed System AF	Effluent Total AF
Ina Road				
2003	27,071.5	806.9	26,407.6	27,214.5
2004	28,714.7	605.6	27,925.5	28,531.1
2005	26,149.8	665.7	24,552.1	25,217.8
2006	25,854.4	613.2	24,968.1	25,581.3
2007	28,840.6	8.0	27,856.3	27,864.3
2008	32,192.0	22.2	31,545.7	31,567.9
Roger Road				
2003	41,991.9	119.7	40,862.2	40,981.9
2004	40,957.0	599.0	39,025.8	39,624.8
2005	43,239.0	13.6	42,311.5	42,325.1
2006	43,381.2	63.0	40,864.8	40,927.8
2007	40,730.7	60.1	37,763.2	37,823.3
2008	36,823.6	116.3	34,194.2	34,310.5
Randolph Park				
2003	1.4	1.4	0.0	1.4
2004	114.7	0.0	97.5	97.5
2005	1,579.6	408.4	1,055.9	1,464.3
2006	2,785.4	679.5	1,878.5	2,558.0
2007	2,866.5	0.5	2,610.4	2,610.9
2008	2,973.6	0.3	2,661.6	2,661.9
Metropolitan Facility Totals				
2003	69,064.8	927.9	67,269.9	68,197.8
2004	69,786.4	1,204.6	67,048.8	68,253.4
2005	70,968.4	1,087.7	67,919.5	69,007.2
2006	72,021.0	1,355.7	67,711.4	69,067.1
2007	72,437.8	68.6	68,229.9	68,298.5
2008	71,989.2	138.8	68,401.5	68,540.3

II. Effluent Generated at Regional Wastewater Reclamation Facilities (Continued)

D. Non-Metropolitan Outlying Facilities

1. Arivaca Junction Wastewater Reclamation Facility

The Arivaca Junction WRF is located in the town of Amado, approximately 30 miles south of Tucson. It consists of a single, 3.2-acre, aerated lagoon with a permitted treatment capacity of 100,000 gallons per day (GPD). Chlorination is the method of disinfection. Effluent disposal is via evaporation, percolation through the base of the unlined pond, and reuse. Evaporation ranges from 7,000 to 14,000 GPD, while percolation is approximately 10,000 GPD. RWRD has a reuse agreement with Reventone Ranch to accept delivery of this facility's Class C reclaimed water for restricted agricultural use.

Source	Description	Volume AF	Volume MG
Influent	Sewage received by WRF	60.85	19.83
Delivered to Reuse	Reventone Ranch	35.09	11.44
Groundwater Discharge	Percolation through base of impoundment (estimated at 10,000 gallons per day)	11.23	3.66

2. Avra Valley Wastewater Reclamation Facility

The Avra Valley WRF is located on the west side of the Tucson Mountains, approximately 20 miles southwest of Tucson. The facility is a 2.2 MGD oxidation ditch for achieving both nitrification and denitrification and utilizes chlorination as the method of disinfection. Effluent produced at this facility is Class B+ and is disposed of by percolation, on-site reuse for irrigation and dust control, and surface water discharge to Black Wash using a sprayfield under an AZDPES permit.

Source	Description	Volume AF	Volume MG
Influent	Sewage received by WRF	1,361.22	443.55
Groundwater Discharge	Percolation beds and ponds - groundwater recharge without storage credit accrual	1,152.11	375.42
Reuse On-site	Irrigation and dust control	20.14	6.56
Process Water	Industrial usage on-site	26.20	8.53
AZPDES Discharge	Black Wash Sprayfield	0	0

II. Effluent Generated at Regional Wastewater Reclamation Facilities (Continued)

D. Non-Metropolitan Outlying Facilities (Continued)

3. Corona de Tucson Wastewater Reclamation Facility

The Corona de Tucson WRF is located 22 miles southeast of Tucson. The facility consists of a recently constructed 1.0 MGD closed loop oxidation ditch for achieving both nitrification and denitrification. This facility is not classified for reuse. Effluent is disposed into percolation basins designed for groundwater recharge. Soil aquifer treatment (SAT) is the method of disinfection.

Source	Description	Volume AF	Volume MG
Influent	Sewage received by WRF	256.57	83.60
Groundwater Discharge	Percolation beds and ponds - groundwater recharge without storage credit accrual	257.32 ¹	83.85

¹An additional volume of 8.19 AF is included that does not come directly from plant influent. This additional discharge to the SAT basins came from dewatering the evaporation basin/lagoons at the facility during the first 5 months of the year.

4. Green Valley Wastewater Reclamation Facility

The Green Valley WRF is located approximately 15 miles south of Tucson and serves the town of Green Valley. This facility is comprised of two treatment trains. The first consists of a 2.0 MGD oxidation ditch achieving nitrification and denitrification. Chlorination of this effluent produces Class B+ reclaimed water. The reclaimed water is delivered to Robson/Quail Creek for groundwater recharge. The second treatment train consists of a separate 2.1 MGD aerated lagoon, producing the equivalent of Class B reclaimed water. However, this stream is not classified for reuse in the Aquifer Protection Permit. Effluent from this facility is disposed of through percolation.

Source	Description	Volume AF	Volume MG
Influent	Sewage received by WRF	2,007.95 ¹	654.29 ¹
Delivered Reclaimed Water	Effluent from BNROD to Robson/Quail Creek for groundwater recharge to accrue storage credits for golf course & landscape irrigation	1,757.33	572.63
Groundwater Discharge by PC	Percolation ponds (Lagoon Facility) - groundwater recharge without storage credit accrual	537.73	175.22

¹Meter data for Green Valley WRF for July, August, and September show inconsistent values for influent and effluent volumes.

II. Effluent Generated at Regional Wastewater Reclamation Facilities (Continued)

D. Non-Metropolitan Outlying Facilities (Continued)

5. Marana Wastewater Reclamation Facility

The Marana WRF is located northwest of Tucson in the Town of Marana. This facility consists of a 0.5 MGD Biolac treatment process and four, 50,000 GPD, Smith and Loveless package treatment facilities. This facility is capable of treating a combined capacity of 0.7 MGD. Chlorination is the method of disinfection, producing Class B+ reclaimed water. Reclaimed water from this facility is used for landscape irrigation in a riparian habitat and is released to a tributary to the Santa Cruz River under an AZPDES permit.

Source	Description	Volume AF	Volume MG
Influent	Sewage received by WRF	266.47	86.83
AZPDES Discharge	Outfall to channel tributary to Santa Cruz River	253.38	82.56
Reuse On-site	Irrigation on-site and in adjacent park	2.42	0.79
Process Water	Used in industrial process at WRF	8.02	2.61

6. Mt. Lemmon Wastewater Reclamation Facility

The Mt. Lemmon WRF is located in the Town of Summerhaven in the Catalina Mountains. This facility operates under a special use permit issued by the United States Forest Service (USFS) that authorizes a treatment capacity of 17,000 gallons per day. This facility consists of a closed loop oxidation ditch for achieving both nitrification and denitrification. Effluent is disposed of through an off-site sprayfield, through a French drain, and through a surface water discharge to an unnamed tributary to the San Pedro River under an AZPDES permit. The facility currently is covered by an APP general permit, so a reclaimed water classification is not possible.

Source	Description	Volume AF	Volume MG
Influent	Sewage received by WRF	3.74	1.22
AZPDES Discharge and Groundwater Discharge	Discharge to sprayfield, drain, or release by outfall to unnamed tributary to San Pedro River	2.98	0.97

II. Effluent Generated at Regional Wastewater Reclamation Facilities (Continued)

D. Non-Metropolitan Outlying Facilities (Continued)

7. Pima County Fairgrounds Wastewater Reclamation Facility

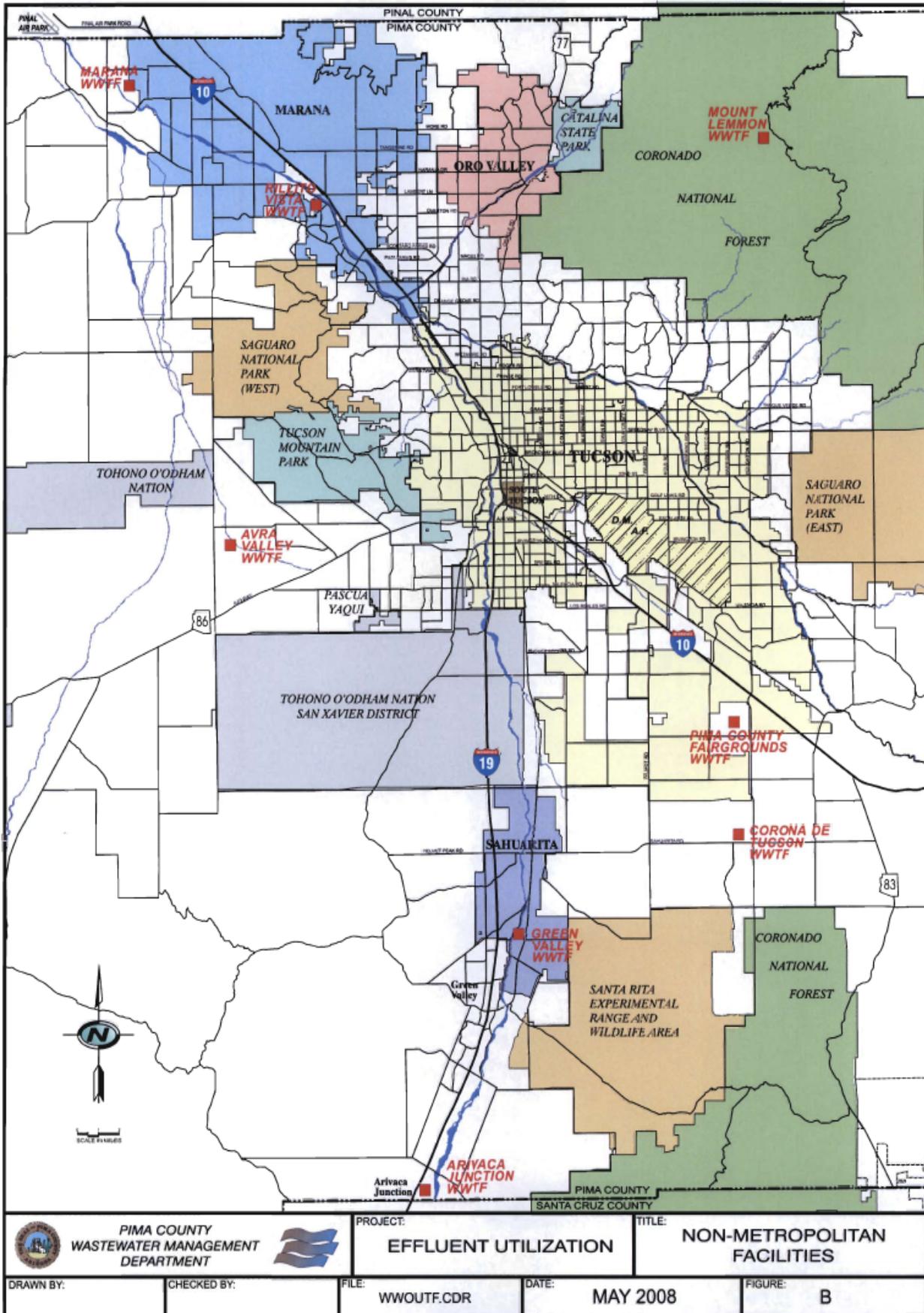
The PC Fairgrounds WRF is located approximately 18 miles southeast of Tucson and serves the fairgrounds complex. This facility has a permitted capacity of 20,000 GPD. This facility uses stabilization lagoons and effluent is disposed of through evaporation and percolation.

Source	Description	Volume AF	Volume MG
Influent	Sewage received by WRF	9.07	2.96

8. Rillito Vista Wastewater Reclamation Facility

The Rillito Vista WRF is located north of the Town of Marana. This facility consists of two, unlined, stabilization ponds with a maximum capacity of 20,000 GPD. This facility is designed for evaporation and percolation.

Source	Description	Volume AF	Volume MG
Influent Volume	Sewage received by WRF	8.00	2.61



III. Reclaimed Water for Reuse, Environmental Restoration and Underground Storage (Groundwater Recharge)

A. Reuse by Pima County Natural Resources, Parks and Recreation

**Natural Resources, Parks and Recreation¹
2008 Monthly Reclaimed Water Use**

Month	Gallons	Ccf ²	AF
January	11,911,900	15,925	36.6
February	8,278,864	11,068	25.4
March	14,251,644	19,053	43.7
April	27,509,196	36,777	84.4
May	29,366,480	39,260	90.1
June	40,923,828	54,711	125.6
July	41,116,812	54,969	126.2
August	28,029,804	37,473	86.0
September	24,686,992	33,004	75.8
October	17,410,448	23,276	53.4
November	35,929,432	48,034	110.3
December	23,153,592	30,954	71.1
Total	302,568,892	404,504	928.6

¹Includes sites for PCDOT and PCRFC. See following table for data from Kino Sports Complex.

²Ccf = one hundred cubic feet.

**Yearly Reclaimed Water Use by
Pima County**

Year	Gallons/Year	Ccf	AF
2003	69,569,188.5	93,006.9	213.5
2004	86,112,707.1	115,123.9	264.3
2005	74,344,468.0	99,391.0	228.2
2006	92,815,580.0	124,085.0	284.8
2007	295,568,460.0	395,145.0	907.1
2008	302,568,892.0	404,504.0	928.6

SOURCE: Metered data provided by COT

III. Reclaimed Water for Reuse, Environmental Restoration and Underground Storage (Groundwater Recharge) (Continued)

B. Kino Environmental Restoration Project

**Kino Sports Complex
2008 Monthly Reclaimed Water Use**

Month	Gallons	Ccf	AF
January	232,628	311	0.7
February	5,562,876	7,437	17.1
March	4,824,600	6,450	14.8
April	4,282,300	5,725	13.1
May	8,379,096	11,202	25.7
June	7,212,216	9,642	22.1
July	9,088,200	12,150	27.9
August	198,968	266	0.6
September	32,912	44	0.1
October	145,112	194	0.4
November	15,562,140	20,805	47.8
December	5,752,120	7,690	17.7
Total	61,273,168	81,916	188.1¹

SOURCE: Metered data provided by COT

Historical Reclaimed Water Use

Year	Gallons	Ccf	AF
2003	116,720,000.0	156,042.8	358.0
2004	107,504,804.0	143,723.0	329.9
2005	58,712,764.0	78,493.0	180.2
2006	128,622,340.0	171,955.0	394.7
2007	51,902,972.0	69,389.0	159.3
2008	61,273,168.0	81,916.0	188.1 ¹

Reclaimed/Harvested by Year

Year	Reclaimed Water AF	Stormwater Harvested AF	Total Irrigation AF
2003	358.0	87.0	445.0
2004	329.9	30.7	360.6
2005	180.2	64.9	245.1
2006	394.7	0	394.7
2007	159.3	65.95	225.25
2008	188.1 ¹	95.85	283.95

¹ Log of meter readings kept by Kino Sports Park shows the reclaimed volume for 2008 to be 194.2 AF. Discrepancy between the log and Tucson Water's billing record may be due to billing cycle.

III. Reclaimed Water for Reuse, Environmental Restoration and Underground Storage (Groundwater Recharge) (Continued)

C. Underground Storage (Groundwater Recharge) of Effluent

Summary of Recharge Volumes For Calendar Year - 2008

PROJECT	Effluent Devoted to Recharge ¹ AF	Evapo-transpiration, Cut to the Aquifer or Other Loss Factors ² AF	Accrued Credits for Long Term Storage AF
Lower Santa Cruz Managed Recharge Project (LSCMRP)	1520.10	842.50	677.60
High Plains Effluent Recharge Project (HPERP)	383.10	34.81	348.29
Corona De Tucson ³	0	0	0
Total	1903.20	877.31	1025.89

Long Term Storage Credit Summary:

Year	County Share of Metro Effluent AF	County Storage Credits AF ⁴	Cumulative Credits AF
2003	3,999.8	58.1	58.10
2004	4,005.3	449.3	507.40
2005	4,080.7	535.1	1,042.50
2006	4,086.7	532.3	1,574.80
2007	4,009.9	788.38	2,363.18
2008	4,034.0	1,025.89	3,389.07

¹ County's share of effluent entering recharge facility.

² Other factors could include diversions or water that was deemed ineligible for credit.

³ WRF's permit to allow credit accrual was issued by ADWR in 1st quarter of 2009.

⁴ Prior to 2007, groundwater storage credits were only attained from the Lower Santa Cruz Managed Recharge Project (LSCMRP). In 2007 and subsequent years, credits accrued from both LSCMRP and the High Plains Effluent Recharge Project (HPERP). In 2007, credits were 604.30 AF for LSCMRP and 184.08 AF for HPERP. In 2008, credits were 677.60 AF for LSCMRP and 348.29 for HPERP.

IV. Effluent Entitlements

2008 Effluent from the Metropolitan Treatment Facilities

Treatment Facilities	Influent Received AF ¹	County Effluent Reuse AF	Effluent Discharged or Reclaimed System AF	Effluent Total AF
Ina Road WRF	32,191.95			
-Plant Irrigation, etc.		22.16		
-Santa Cruz Discharge			31,545.68	
Ina Road WRF Total	32,191.95	22.16	31,545.68	31,567.84
Roger Road WRF	36,823.61			
-Plant Irrigation, etc.		116.34		
-Santa Cruz Discharge			21,691.17	
-Delivered to Reclaimed System for All Water Providers			12,503.00	
Roger Road WRF Total	36,823.61	116.34	34,194.17	34,310.51
Randolph Park WRF	2,973.56			
-Plant Irrigation, etc.		0.26		
-Delivered Direct into Reclaimed System			2,661.62	
Randolph Park WRF Total	2,973.56	0.26	2,661.62	2,661.88
County Reuse from COT Reclaimed System				
-Natural Resources, Parks and Recreation		928.6		
-KERP ²		188.1		
-System Loss ³		44.6		
Cumulative Totals	71,989.12	1,300.0⁴	68,401.47	68,540.5⁵

¹ AF = Acre-feet. One acre-foot equals 325,851 gallons.

² KERP = Kino Environmental Restoration Project.

³ Pima County is not billed for this 4% loss factor on the City's reclaimed water system. However, the loss is accounted for in calculating effluent entitlements in accordance with the 2003 IGA for Lower Santa Cruz Managed Recharge Project.

⁴ Volume of County reuse from the Reclaimed System is not added back in to calculate Cumulative Effluent Total because it is already accounted under Roger Road WRF as "Delivered to Reclaimed System for All Water Providers."

⁵ Actual total from figures in the chart is 68,540.23 AF. However, the total volume used for entitlement calculations by LSCMRP is 68,540.5 AF, which has been inserted here for consistency. The discrepancy arises because of rounding that occurs within various calculations for LSCMRP.

IV. Effluent Entitlements (Continued)

Entitlement Calculations	Effluent Total (AF)
SAWRSA ¹	28,200.0
Total Less SAWRSA	40,340.5
Water Providers Factorial	0.9
PC Factorial	0.1
Entities Share	
-Water Providers (90%)	36,306.4
-PC (10%)	4,034.0

Allocation and use of effluent in PC are governed by a series of agreements and legal constraints. The key agreements are listed and described below:

A. 1979 Intergovernmental Agreement, Resolution No. 1979 - 78

The 1979 Intergovernmental Agreement, signed on June 26, 1979, was the original agreement between PC and the COT. This agreement assigned control of wastewater conveyance and treatment activities to PC RWRD. In exchange, the COT would receive 90% of all effluent produced at the RWRD metropolitan sites, which were limited to Ina Road WRF and Roger Road WRF.

B. Southern Arizona Water Rights Settlement Act (SAWRSA)

SAWRSA stands for the Southern Arizona Water Rights Settlement Act of 1982 (P.L. 97-293) and the subsequent Arizona Water Settlements Act (P.L. 108-451--12/10/2004). The Department of Interior, through U.S. Bureau of Reclamation, receives on behalf of the Tohono O'Odham Nation 28,200 acre-feet per year of secondary treated effluent from Tucson area wastewater treatment plants to assist in implementation of the settlement. Reclamation currently recharges this treated effluent in the Santa Cruz River and receives credit for 50% of the water recharged.

¹ SAWARSA = Southern Arizona Water Rights Settlement Act.

IV. Effluent Entitlements (Continued)

C. City of Tucson - Pima County Supplemental Intergovernmental Agreement Relating to Effluent, Resolution No. 2000-28

The 2000 Supplemental Intergovernmental Agreement signed on February 8, 2000, placed restrictions on how PC could use effluent. This agreement also exempted outlying treatment facilities from the City control, identified the need for reopening the Randolph Park WRF, and provided an avenue for the County to deliver County effluent to County facilities. This supplemental agreement also established a Conservation Effluent Pool for use with riparian habitat projects and identified how the Southern Arizona Water Rights Settlement Act (SAWRSA) volumes are to be treated in determining effluent allocations.

D. Conservation Effluent Pool Agreement

The Conservation Effluent Pool which is a specific quantity of effluent that can be used for conservation projects was identified in the 2000 Supplemental Intergovernmental Agreement. However, the implementation of the use of this pool requires a separate agreement, which is currently being negotiated with the COT.

E. Intergovernmental Agreement between the COT and PC for Treating Effluent and Wheeling Reclaimed Water (Wheeling Agreement), Resolution No. 2003-286

The Wheeling Agreement, signed December 16, 2003, governs reclaimed water transactions between RWRD (the effluent provider), COT (the distributor and a reclaimed water user) and other County facilities (reclaimed water users). Effluent enters the system at the COT Sweetwater Plant and through direct delivery from the Randolph Park WRF, where it is piped to various locations. The agreement governs the costs per acre-foot that will be charged to PC for distribution of PC effluent to County sites.

F. Intergovernmental Agreement - Permitting and Operating Managed In-Channel Recharge of Effluent in the Santa Cruz River Channel (Managed Recharge IGA 2003)

The Managed Recharge IGA 2003 governs the recharge of effluent and the associated groundwater storage credits made available from recharging effluent into LSCMRP (Lower Santa Cruz Managed Recharge Project) between the Ina Road WRF and Trico Road in Marana. Participants include the Town of Marana, Cortaro-Marana Irrigation District, Avra Valley Irrigation District, Metropolitan Domestic Water Improvement District, Flowing Wells Irrigation District, Oro Valley, PC, and the COT.