



MEMORANDUM

Date: February 16, 2011

To: The Honorable Chairman and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator *[Signature]*

Re: **Presentation Given by the Regional Wastewater Reclamation Director to the Marana Chamber of Commerce**

I am enclosing a copy of the PowerPoint Presentation given by our Regional Wastewater Reclamation Director to the Marana Chamber of Commerce on February 15, 2011. The information is self-explanatory and relates to the adverse impacts of Senate Bill 1171 on the County as well as Marana ratepayers.

While the discussion has been largely characterized as Marana versus Pima County, the real losers in this endeavor, from a financial perspective, are the wastewater ratepayers who reside within the Town of Marana. They will have to pay continuing and significantly higher sewer bills than the balance of the community for Marana to maintain its sewage independence. We are continuing to quantify these costs and the impact on a Marana ratepayer on a cost-per-month basis. Slide 16 of the presentation summarizes some of the expenditures already quantified. Additional refinement of this data will confirm Marana sewer ratepayers will be the losers in this ill-conceived legislative endeavor.

Further, as shown on Slide 18, a more cost-effective alternative is available to Marana.

CHH/mjk

Attachment

c: John Bernal, Deputy County Administrator for Public Works
Jackson Jenkins, Director, Regional Wastewater Reclamation

Adverse Impact of SB 1171 to Pima County and Marana Ratepayers

Jackson Jenkins, Director
Pima County Regional
Wastewater Reclamation
Department

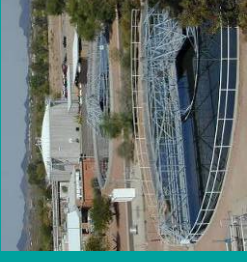
February 15, 2011



Regional Wastewater Reclamation Department

- ▶ Second largest wastewater system in Arizona
- ▶ 700-square-mile service area
- ▶ 262,000 customers
- ▶ 500 employees
- ▶ Conveyance
 - ▶ 3,500 miles of pipe
 - ▶ 73,000 manholes and cleanouts
 - ▶ 29 lift stations
- ▶ Treatment
 - ▶ 11 wastewater reclamation facilities
 - ▶ 70+ million gallons of wastewater per day

Public Health is the Mission



Upgraded Sub-Regional Facilities Producing A+ Effluent



**Green Valley WRF -
BNROD**



Marana WRF - Biolac®



**Corona de Tucson WRF -
Closed Loop Reactor**



Avra Valley WRF - BNROD

Regional Optimization Master Plan (ROMP)

Goals and Costs

- ✓ Meet EPA/ADEQ regulatory deadlines of 2014/2015
- ✓ Upgrade and Expand Ina Road WRF to 50 mgd
- ✓ Construct new 32 mgd Water Reclamation Campus
- ✓ Plant Interconnect – 36 mgd average
- ✓ Decommission existing 41 mgd Roger Road WRF

ROMP planning level estimated cost
(2006 dollars):

\$536 million

ROMP budget including
cost inflation (assuming an
inflation rate of 5%):

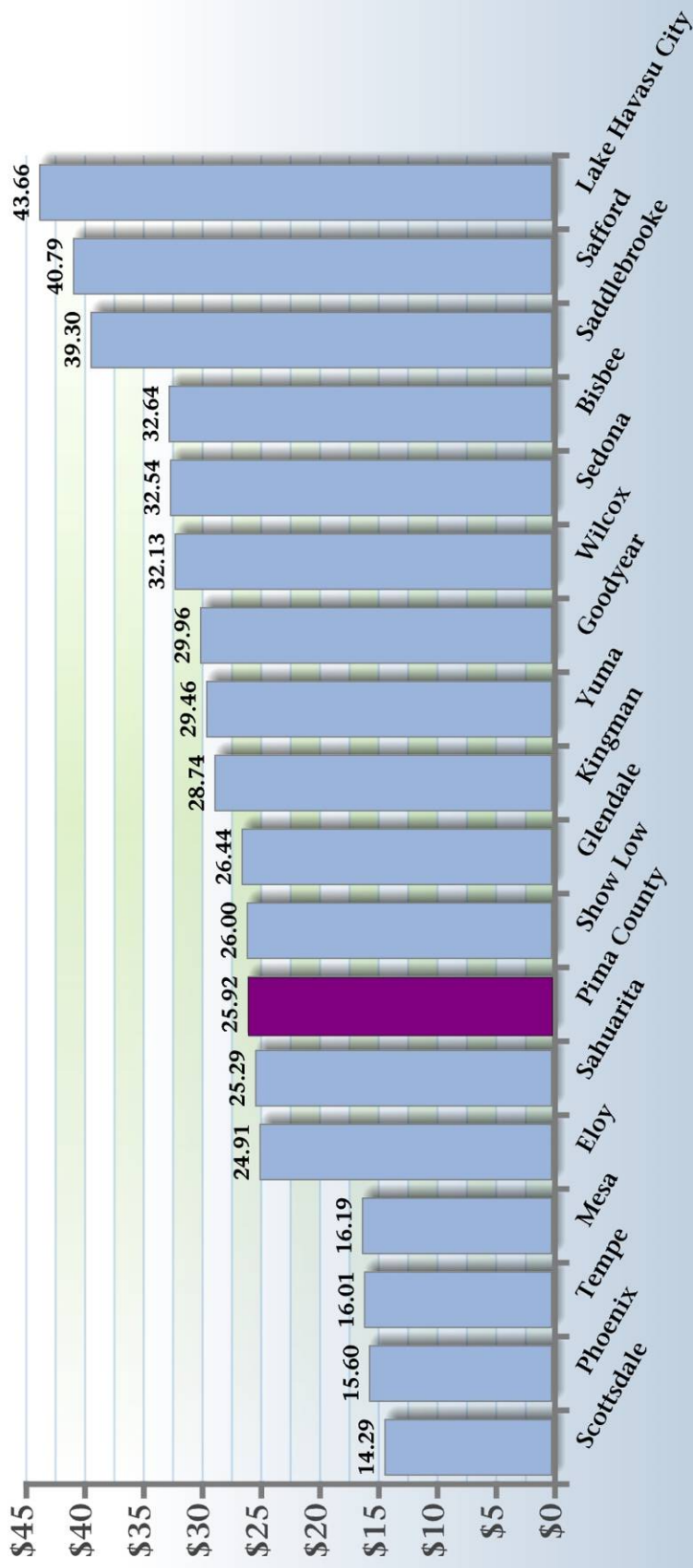
\$720 million

Bonding/debt service:

\$1 + billion

Largest capital improvement program in Pima County to date

2009 Sewer Utility Rate Comparison Monthly Sewer User Rates in Arizona



Rates based on 5,000 gallons flow volume

Source: Water Infrastructure Finance Authority of Arizona (WIFA)
2009 Water and Wastewater Residential Rate Survey for the State of Arizona

Note: Town of Sahuarita is implementing a new Financial Plan.

Pima County has provided wastewater service in the Marana area since 1973...



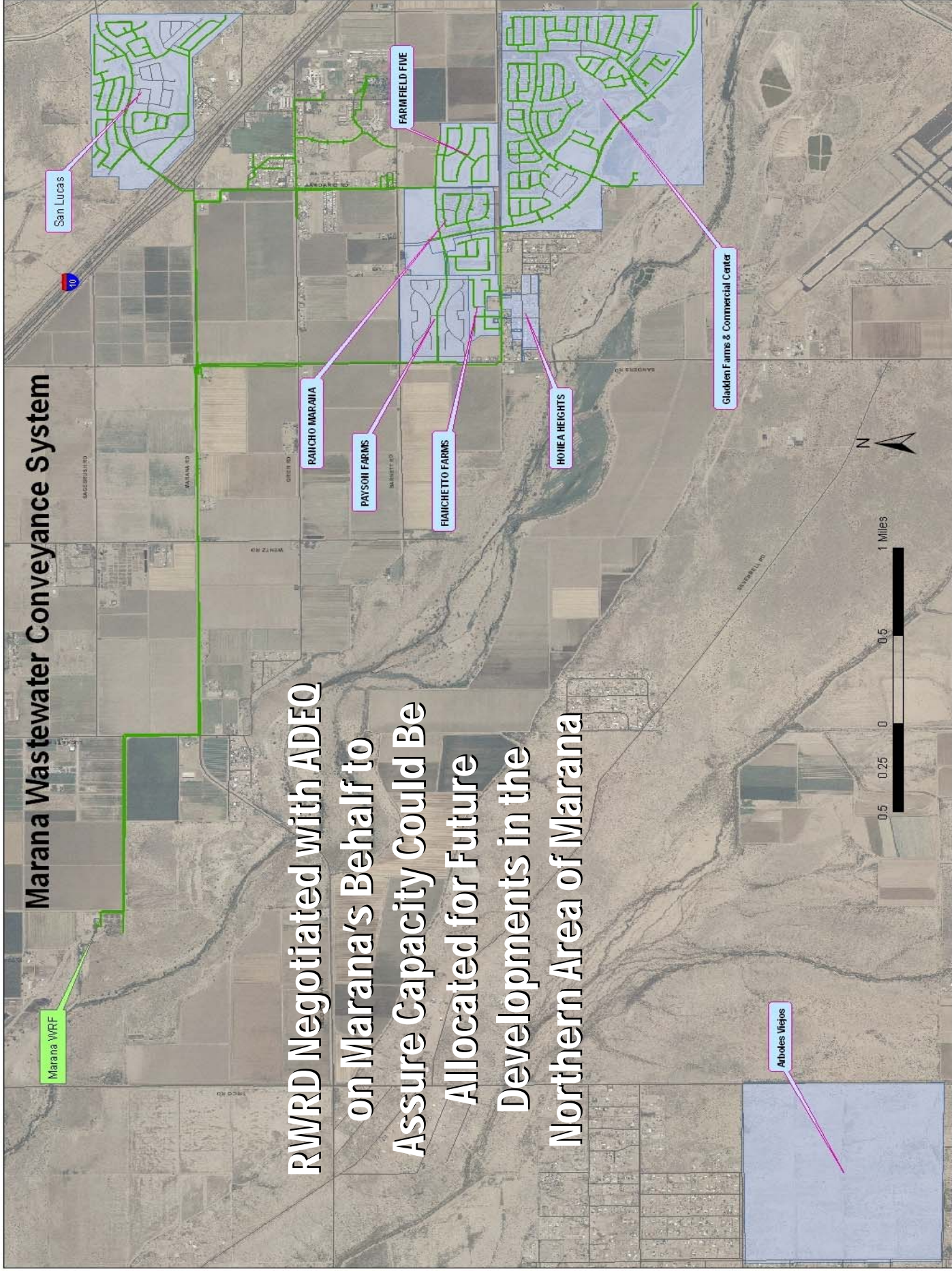
Expansions of Marana WRF
funded with 1997/2004
Bond Funding and Pay-As-
You-Go or System
Development Funds



And has actively expanded its system
(funded by all RWRD ratepayers) to
prepare for growth in the Town of
Marana and the surrounding area

Marana Wastewater Conveyance System

**RWRD Negotiated with ADEQ
on Marana's Behalf to
Assure Capacity Could Be
Allocated for Future
Developments in the
Northern Area of Marana**



Marana Treatment Facility Capital Costs

- ▶ Over \$30 million in hard and soft costs invested by Regional ratepayers funded by bonding (debt) and pay-as-you-go financing.
- ▶ Historical Capital Costs – establishment of plant/land improvements
- ▶ Package Plants (0.2 mgd)
- ▶ TRICO Power Transformer
- ▶ Biolac® Treatment Facility (0.5 mgd)
- ▶ Buffer Land Acquisition
- ▶ IPS/Headwork
- ▶ UV/Filter
- ▶ New BNROD Design (1.5 mgd expansion)
- ▶ Only \$6 million repaid as of 2008 by Town of Marana connections tributary to the facility
- ▶ Outstanding debt of approximately \$16.1 million

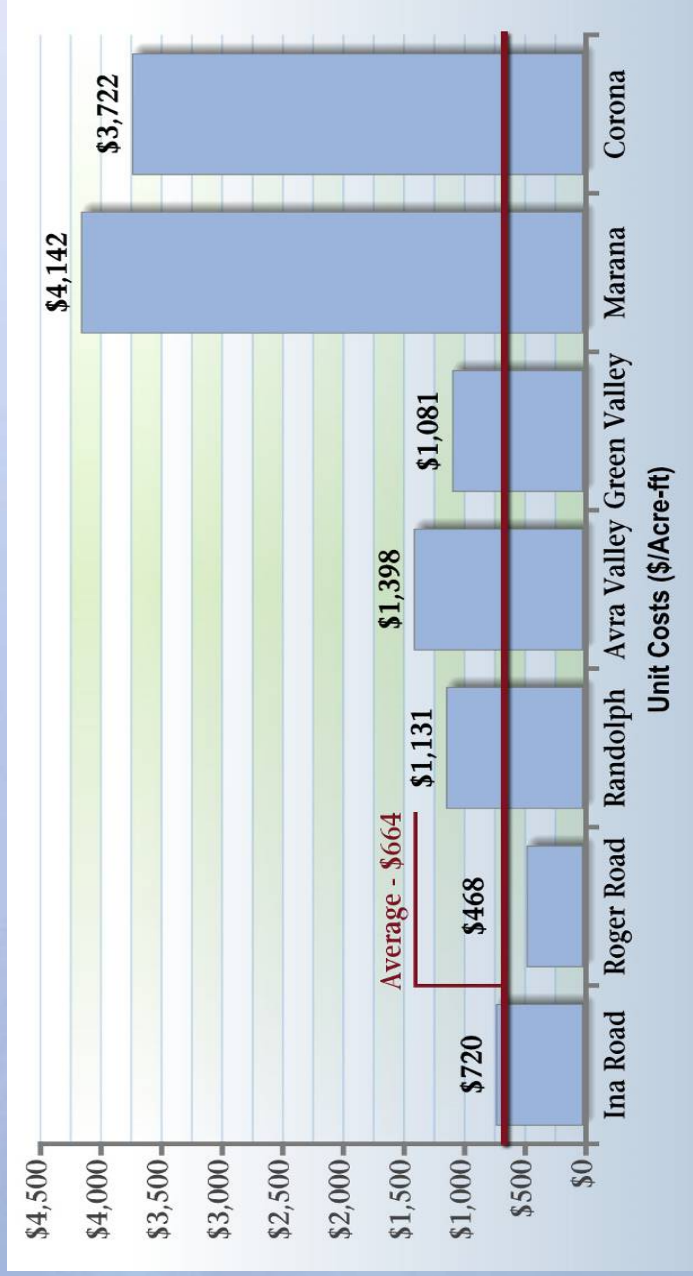


Treatment Facility Cost Data, FY 2009/10

FY09/10	Ina Road	Roger Road	Randolph Park	Avra Valley	Green Valley	Marana	Corona	TOTAL*
Average Flow (MGD)	26.217	32.193	2.395	1.195	1.824	0.254	0.252	
Total Flow (MGals)	9569,205	11750,445	874,175	436,175	665,76	92.71	91.98	23481,545
Total Flow (Acre-ft)	29366.81183	36060.79159	2682.744567	1338.571924	2043.142418	284.5165428	282.2762551	72062.21555
Facility O&M Costs	\$ 15,338,414	\$ 12,288,094	\$ 2,286,280	\$ 1,416,799	\$ 1,651,967	\$ 883,855	\$ 788,979	\$ 35,003,694
Other RWRD Costs	\$ 5,804,346	\$ 4,582,002	\$ 749,184	\$ 454,329	\$ 556,340	\$ 294,726	\$ 261,696	\$ 12,820,200
Total	\$ 21,142,760	\$ 16,870,096	\$ 3,035,464	\$ 1,871,128	\$ 2,208,308	\$ 1,178,581	\$ 1,050,675	\$ 47,823,894
Unit Costs (\$/MGals)	\$ 2,209	\$ 1,436	\$ 3,472	\$ 4,290	\$ 3,317	\$ 12,713	\$ 11,423	\$ 2,037
Unit Costs (\$/Acre-ft)	\$ 720	\$ 468	\$ 1,131	\$ 1,398	\$ 1,081	\$ 4,142	\$ 3,722	\$ 664

*Total figures include cost data for Mt. Lemmon WRF which is not represented on the chart

Comparison of Treatment Costs for RWRD Facilities



Additional Marana Pumping Station Charges

- ▶ Costs for the Continental Ranch and Tangerine Pumping Stations would be paid by Marana residents.
- ▶ 2010 O&M costs for the Continental Ranch, Tangerine and standby Pumping Stations totaled approximately \$500,000.
 - Based on an estimated 12,000 Town of Marana customers, their annual charge would be \$40 per customer. (\$500,000 divided by 12,000)
- ▶ Previous expenditures and current planned additional capital spending for the Marana area pumping stations total \$5.2 million.
 - Recovery of these capital costs would produce a lump sum charge of \$433.33 for the estimated 12,000 customers.
 - If amortized over 15 years at 5% interest, the cost per customer would be \$3.43 monthly.

What Does SB 1171 Do To the Marana Treatment Facility?

- ▶ SB 1171 would allow a city or town to acquire a sewage system from a county:
 - ▶ If there was an affirmative vote by the majority of the qualified electors authorizing the town to operate a wastewater utility (see “Issues” below), and
 - ▶ If 75% or more of the sewage treated at the facility originates from within the city or town, then . . .
 - ▶ Upon notice to the county that the city or town wishes to acquire all or a portion of the sewage system (including sewer pipes, pumps, and other sewage collection infrastructure); the system will transfer no less than 30 days and no more than 180 days after the date of the notice.
 - ▶ City or Town shall pay or assume all outstanding indebtedness attributable to the transferred infrastructure or treatment capacity as of the date of transfer.
- ▶ Issues:
 - The election that was held to approve Marana to operate its own wastewater utility was held in 1988 with 227 yes votes, 62 no votes and the total Marana population in 1990 was 2,187. In 2010 it was estimated to be 35,559.
 - Cost to develop Marana Wastewater Reclamation Facility has been approximately \$30 million using bonds and pay-as-you-go funding
 - Capital investment by ratepayers for pumping stations is \$5.2 million

Adverse Impacts of SB 1171 to Pima County

- ▶ Could potentially result in 8 different wastewater utility systems in the region with significant duplication of administrative, management and overhead costs translating into increased customer cost.
- ▶ Fragmentation of the system and infrastructure would destroy regional economies of scale and cost efficiencies.
- ▶ Rate payers would see varying rates and overlapping service areas.
- ▶ Smaller wastewater treatment facilities may not have the processes designed or the expertise to treat waste from manufacturing and high technology industries, therefore making it more difficult for these types of businesses to locate to the region.
- ▶ Pima County would be reluctant to invest in wastewater infrastructure and capacity if, by this legislation, a municipality can acquire the infrastructure with a 30 day notice.
- ▶ Pima County's ability to market revenue bonds to expand system would be negatively impacted if the infrastructure can be acquired by another entity with a 30-day notice. Further, because of repayment of bond debt uncertainty future capital borrowing could be severely limited, or more expensive at higher interest rates or both.
- ▶ Previous capital investments would not be adequately reimbursed – County rate payers would lose facilities without fair compensation.
- ▶ Wastewater utility rates for Marana residents will increase sharply with no service benefits

Impacts to Marana Ratepayers (Assume 12,000 Customers)

- ▶ Treatment costs for Marana residents will increase by 13%
- ▶ Treatment is approximately 50% of all O&M costs
- ▶ Conveyance pumping costs for Marana residents will increase by 800%
 - ▶ From \$5.00 per year to \$40.00 per year
- ▶ Capital costs for conveyance and treatment systems will need to be distributed over a smaller population such as:
 - ▶ Cost of \$5.2 million in pumping station capital costs = \$3.43/month per Marana customer
 - ▶ Cost of \$24 million for Marana WRF (\$30 capital expended - \$6 million collected) = \$15.82/month per Marana customer
- ▶ Capital costs allocations for the following will also impact Marana customers and will be recovered as cost per month per customer:
 - ▶ Prior Ina Road WRF expansions
 - ▶ \$323 million for current ROMP Ina WRF improvements
 - ▶ \$22.5 million for planned Marana WRF expansion

MARANA vs. Pima County Litigation Over Sewer System and Costs

- ▶ **July/August 2007** – Marana withdraws from 1979 IGA and seeks to take control of wastewater infrastructure within Town and all its effluent
- ▶ **July 2007** – RWRD declares sewage plant a park which cannot be annexed into Town boundaries
- ▶ **October 2007** – Marana files suit against Pima County claiming that voiding of the IGA entitles them to take wastewater conveyance and treatment infrastructure without compensation
- ▶ The case is heard in Maricopa Superior Court
- ▶ **March 2010 and June 2010** – Court rulings issued
 - ▶ Pima County retains all flow-through wastewater conveyance systems and pumping stations that were owned by the County
 - ▶ The Marana WRF, which is owned by Pima County, is also retained by the County and cannot be annexed by the Town
 - ▶ Marana is granted the non-flow-through sewage pipes that are located within the Town limits
- ▶ Final judgments have not been entered by the Court

Issues:

- ▶ Cost to Marana between \$1 and \$2 million
- ▶ Cost to Pima County \$400,000
- ▶ County was awarded \$170,000 in attorney fees to be paid by Marana
- ▶ If the money spent on litigation would have been used to purchase renewable water from the CAWD Groundwater Replenishment District Marana could have purchased 5305 acre feet of water. Given the effluent flow volume of the MWRP is 285 acre feet per year, this amount of purchased renewable water is equal to over 18 years of effluent flow from the facility.

Marana Does Have Options: Sewage To Water Supply – Marana Sewage Economics

I. Cost of treating sewage to effluent at treatment facilities within Marana.	
Ina Road (serves Continental Ranch and Dove Mountain)	\$720 per acre foot ⁽¹⁾
Marana WRF - (serves Gladden Farms)	\$4,142 per acre foot ⁽²⁾

II. Cost to recharge effluent to groundwater supply.	
Lower Santa Cruz	\$135 per acre foot ^(3,5)
High Plains	\$300 per acre foot

III. Cost to purchase reclaimed water from City of Tucson or Tucson Water.	
	\$797 per acre foot ⁽⁴⁾

IV. Cost to purchase recharged Central Arizona Project Water from the Central Arizona Water Conservation District.	
	\$377 per acre foot ⁽⁶⁾

Therefore:

- **The cost is at least \$855 per acre foot to treat and recharge sewage using the least cost alternatives available to Marana as opposed to purchasing \$377 acre foot water supplies from the Central Arizona Water Conservation District.**
- **Marana can save at least \$478 per acre foot for their long-term water supply by purchasing their water from the District instead of treating and recharging sewage.**

Notes:

1. Does not include the cost for conveyance or pumping associated with Marana sewage. Also does not include any capital costs.
2. High costs due to small facility size and treatment capacity of 700,000 gallons per day and does not include any capital cost allocation.
3. Based on cost associated with constructing, operating and maintaining recharge basins as managed by the Central Arizona Water Conservation District (CAWCD).
4. Retail cost of reclaimed water includes filtration, distribution and capital costs incurred by Tucson Water.
5. Does not include distribution cost of transporting effluent from point of discharge to recharge basins.
6. From CAWCD 2011/2012 Rate Schedule.

Questions