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# MEMORANDUM

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Date: April 18, 2014

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

From: C.H. Huckelberry  
County Administrator 

Re: **2014 Regional Wastewater Reclamation Department Financial Plan**

The Chair of the Regional Wastewater Reclamation Advisory Committee has transmitted the attached adopted 2014 Financial Plan for the Board of Supervisors information.

The last of the four-year rate structure adopted by the Board in 2010 took effect at the beginning of this fiscal year, with the last adopted rate increase starting July 1, 2013. The 2014 Financial Plan recommends there be no rate increase for at least another year.

Based on the analysis contained in the plan, it will likely be necessary to have a moderate rate increase of about four percent in Fiscal Year 2015/16, two years after the last rate increase. Although the Regional Optimization Master Plan is nearing completion, there are still approximately \$200 million in capital projects planned for the next four years.

When these projects are complete, the increase in capacity will provide capacity for an additional 160,000 residential connections without additional capital costs to the County. These connections will potentially recover more than \$650 million in fees, providing the ability to reduce the current sewer debt and reduce the need for future debt.

If you have any questions regarding the adopted 2014 Financial Plan, please contact me.

CHH/mjk

## Attachments

c: John Bernal, Deputy County Administrator for Public Works  
Jackson Jenkins, Director, Regional Wastewater Reclamation  
Tom Burke, Director, Finance and Risk Management



**REGIONAL WASTEWATER RECLAMATION ADVISORY COMMITTEE**  
201 NORTH STONE AVENUE  
TUCSON, ARIZONA 85701-1207

March 14, 2014

The Honorable Chair and Members  
Pima County Board of Supervisors  
130 West Congress Street, 11th Floor  
Tucson, Arizona 85701

**RE: Regional Wastewater Reclamation Department – Fiscal Year 2014 Financial Plan**

Dear Chair and Members of the Board:

The Regional Wastewater Reclamation Advisory Committee's (RWRAC) was established by the Board of Supervisors (Board) to act as the official advisory body on the Regional Wastewater Reclamation Department (RWRD) Financial Plan and to annually review the proposed Financial Plan and recommend to the governing body an annual and a five-year financial program.

In December 2012, the RWRAC established a five member Financial Sub-Committee to review financial issues and the Financial Plan. Since December 2013, the Sub-Committee has reviewed in depth the financial issues for the Department and the draft Fiscal Year (FY) 2014-15 Financial Plan. After discussion at our February 20, 2014 meeting, the full RWRAC recommended that we approve the FY 2014-15 Financial Plan and the draft RWRD five-year financial program, which will be presented to the Board this spring.

The 2014 RWRD Financial Plan recommends the following:

- The continuation of the existing user fee structure and connection fee structure for the remainder of this FY and for FY 2014/15, with no rate increases.
- The issuance of \$135 million of new sewer revenue obligations and \$60 million of Certificates of Participation (COPs) in the upcoming years as follows:
  - \$20 million of sewer revenue obligations and \$60 million of COPs in FY 2014/15
  - \$50 million of sewer revenue obligations in FY 2015/16
  - \$35 million of sewer revenue obligations in FY 2016/17
  - \$30 million of sewer revenue obligations in FY 2017/18
- The early repayment of \$38 million of WIFA loans and sewer revenue bonds as that debt becomes callable in FY 2016/17.
- During FY 2014/15, adopt rate increases beginning in FY 2015/16 through FY 2017/18 in order to maintain adequate debt service ratios in future years.

Based on previous presentations by the Finance and Risk Management Department, the RWRAC has adopted a recommended goal of achieving a debt service ratio of 130% to maintain the County's favorable sewer bond ratings. Therefore, in order to maintain a debt service ratio of 130%, the County will need to increase net operating revenues by approximately \$16.6 million by FY 2017/18.

On February 20, 2014, the RWRAC unanimously passed a motion to approve the 2014 RWRD Financial Plan.

The RWRAC looks forward to continuing its close working relationship with both the Board of Supervisors and the Department. The Committee members and I are available at your convenience for any questions or further discussion.

Sincerely,



Ann Marie Wolf, Chair  
Regional Wastewater Reclamation Advisory Committee

- c: C.H. Huckelberry, County Administrator  
John M. Bernal, Deputy County Administrator – Public Works  
Jackson Jenkins, Director, Regional Wastewater Reclamation Department  
Tom Burke, Director, Finance and Risk Management Department  
Robin Brigode, Clerk of the Board  
Members, Regional Wastewater Reclamation Advisory Committee



## **2014 Financial Plan**

**Pima County Regional Wastewater Reclamation Enterprise Fund**

*Prepared by  
Pima County Finance Risk Management Department  
April 2014*

# 2014 Financial Plan

Pima County Regional Wastewater Reclamation Enterprise Fund  
April 2014

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**2014 Financial Plan**  
**Pima County Regional Wastewater Reclamation Enterprise Fund**  
**March 2014**

**Summary and Recommendations:**

On an annual basis, Pima County reviews the rate structure for the sanitary sewer services provided by its Regional Wastewater Reclamation Department. On March 9, 2010, the Board of Supervisors adopted automatic increases in fees effective annually through July 1, 2013. At the time the Board adopted this fee structure, the Board directed the County Administrator to prepare an annual report and analysis of the fees for the Board in conjunction with the County's overall annual budget process. Key assumptions used in the preparation of this report are identified in Appendix A. These assumptions were developed by the Finance Department and the Regional Wastewater Reclamation Department and reviewed by the Regional Wastewater Reclamation Advisory Committee.

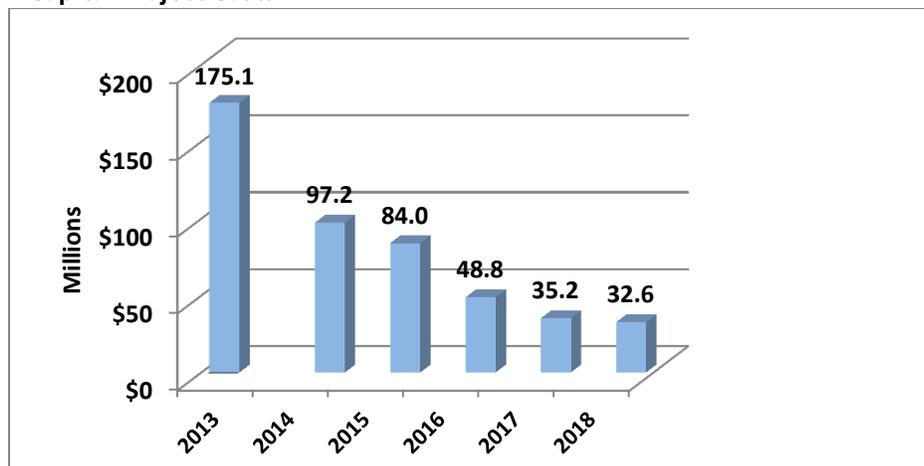
This report addresses the financial needs for the County based upon the projected revenues and expenses and the projected capital improvement program for the current fiscal year and for next four fiscal years through Fiscal Year 2017-18. The focus of the review is to ensure that the County has sufficient revenues to meet all operating and maintenance expenses, to meet all debt service payments and required reserves, and to maintain an adequate debt service ratio to obtain favorable bond ratings for its sewer debt. This will enable the County to continue to issue debt for the improvements in the Capital Improvement Program at favorable interest rates. Based on this review, the Finance and Risk Management Department is recommending:

1. The continuation of the existing user fee structure and connection fee structure for the remainder of this fiscal year and for Fiscal Year 2014-15, with no rate increases.
2. The issuance of \$135 million of new sewer revenue obligations and \$60 million of COPs in the upcoming years as follows:
  - a. \$20 million of sewer revenue obligations and \$60 million of certificates of participation in Fiscal Year 2014-15,
  - b. \$50 million of sewer revenue obligations in Fiscal Year 2015-16,
  - c. \$35 million of sewer revenue obligations in Fiscal Year 2016-17, and
  - d. \$30 million of sewer revenue obligations in Fiscal Year 2017-18.
3. The early repayment of \$38 million of WIFA Loans and sewer revenue bonds as that debt becomes callable in Fiscal Year 2016-17.
4. During Fiscal Year 2014-15, adopt rate increases beginning in Fiscal Year 2015-16 through Fiscal Year 2017-18 in order to maintain adequate debt service ratios in future years.

## 2014 Financial Plan

**Capital Improvement Program:** Pima County has completed significant construction of the Regional Optimization Master Plan (ROMP) capital improvements which started in Fiscal Year 2008-09 as well as improvements needed to perform ongoing maintenance of the conveyance system and treatment system. As can be seen in Figure 1, the County is past the highest levels of construction activity for ROMP and will have much lower capital needs in the coming years. As of January 2014, capital expenditures are estimated to be \$297.7 million through the end of Fiscal Year 2014, capital expenditures are estimated to be \$297.7 million through the end of Fiscal Year 2017-18. An additional \$25 million to \$30 million of capital improvements are anticipated to be needed annually thereafter.

**Figure 1 Capital Project Costs**



As discussed below, even though revenues are increasing, Pima County needs to continue to borrow funds for these capital costs.

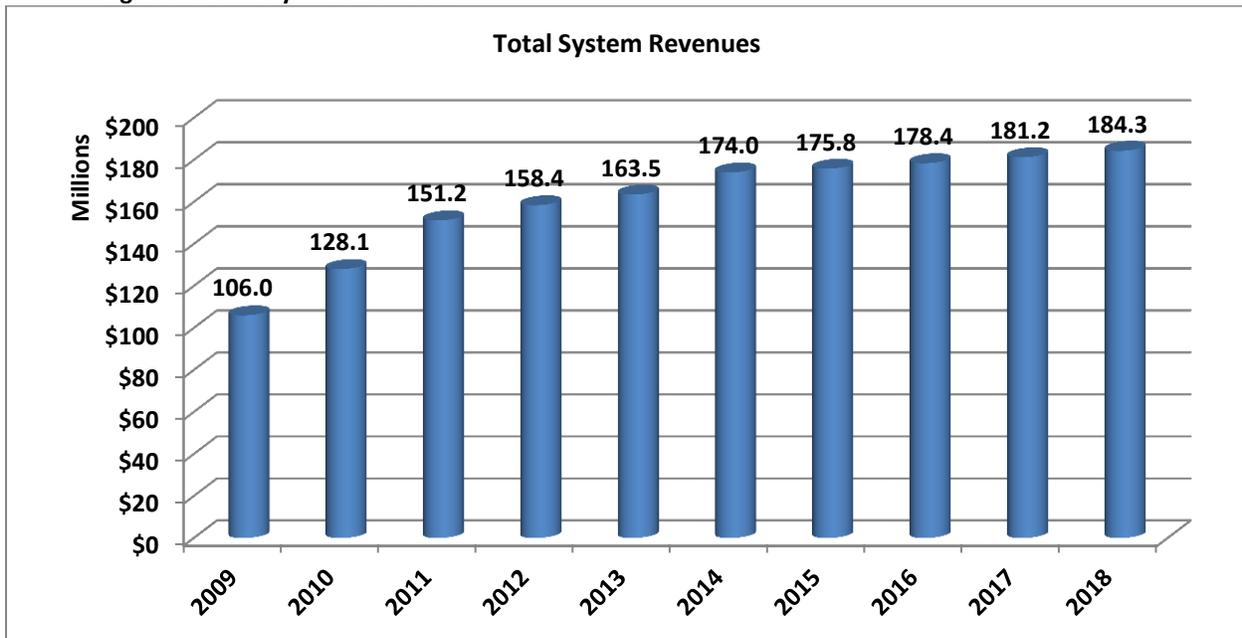
**User Fees and Connection Fees:** Revenues from the wastewater system are generated from two major sources: sewer user fees and sewer connection fees. The sewer user fees consist of the combination of the standard service fee and the volume rate fee. In 2010, the Board of Supervisors approved four automatic rate increases for user fees, with 6.5% annual increases to the standard service fee and 10% increases to the volume rate fee effective on July 1 of each year, with the last of these automatic rate increases taking effect on July 1, 2013. Until future rate increases are adopted, user fee revenues are expected to remain relatively level for the foreseeable future, with any increase dependent on future growth in the number of new users.

Connection fees are charged for new construction connecting to the sewer system for the first time or for renovation of existing improvements which require additional or larger water meters. Connection fees are established based primarily on water meter size, with increasing fees as water meter sizes increase. The principal factor that will affect revenues from future connection fees will be the level of new construction within Pima County.

For purposes of this financial analysis, future user fees and connection fees are projected to increase at the same rate of increase as the medium estimates for population growth issued by the Pima Association of Governments. Those estimates project population growth rates to be between 1.4% and 1.78% over the next four years, as shown in the assumptions in Appendix A to this Financial Plan.

**Total Revenues:** Total sewer system revenues have increased rapidly since 2009 due to annual rate increase. This year, system revenues are expected to be \$174.0 million, with \$161.2 million derived from sewer user fees and \$12.8 million from connection fees. With no scheduled rate increases, revenues are expected to remain flat, increasing to \$175.8 million next year. After that, revenues will increase very gradually, totaling less than five percent increase through Fiscal Year 2018. Figure 2 shows the rapid growth in total revenues between 2009 and 2014 and projected revenues to 2018.

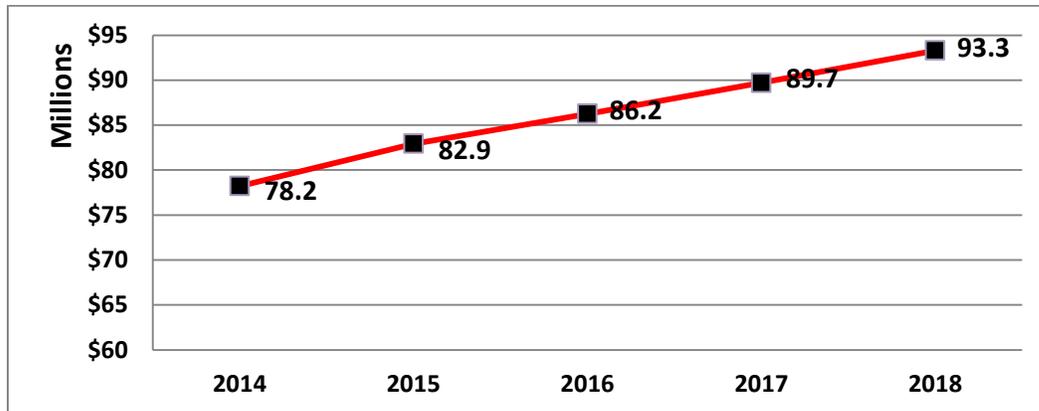
Figure 2: Total System Revenues



**Projected Operating and Maintenance Expenses:** The Department is expecting to complete the current fiscal year with Operating and Maintenance (O&M) expenses of \$78.2 million. The O&M portion of the budget requested by the Department for Fiscal Year 2014-15 is \$82.9 million, representing a six percent increase. The most significant portion of O&M costs are related to employee compensation, which, at \$33.4 million next fiscal year, represents 40 percent of total operating expenses. In addition, the expense for Consultant and Outside Services is increasing from \$6.1 million last year, to \$7.9 million this year, to \$12.1 million next year. This significant increase reflects the privatization of the operations of the new Agua Nueva Water Reclamation Facility which is replacing the old Roger Road plant.

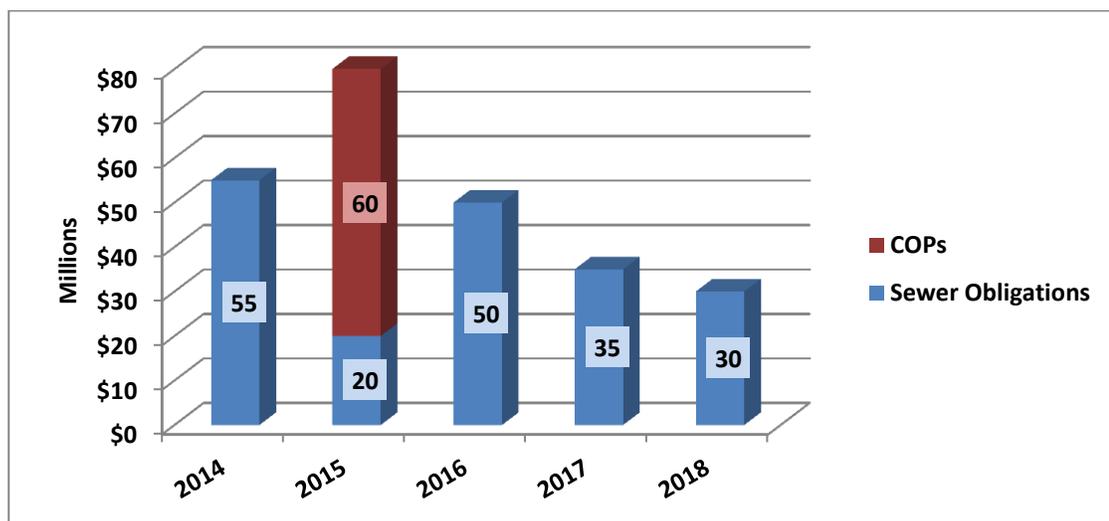
This financial analysis assumes that operating expenses will increase by 6.0 percent for Fiscal Year 2014-15 and by 4.0 percent each year thereafter. At that rate of increase, the O&M costs are expected to increase by approximately \$10.4 million (approximately \$2.6 million annually) during the next four year period. Figure 3 shows the projected increase in Operation and Maintenance Expenses over this period.

**Figure 3: Operating and Maintenance Expenses**



**Sewer Revenue Debt Issues:** As of June 30, 2013, Pima County had \$639.9 million of sewer revenue debt currently outstanding. In January, Pima County issued another \$55 million. In the next four years, the County anticipates issuing an additional \$195 million, of which \$135 million will be secured by system revenues, and an additional \$60 million of Certificates of Participation (COPs) in Fiscal Year 2014-15. Although the COPs issues are not secured by system revenues, repayment will be made from unrestricted cash generated from the system. Figure 4 shows the anticipated debt issues.

**Figure 4 \$250 Million of Additional Debt Through 2018**

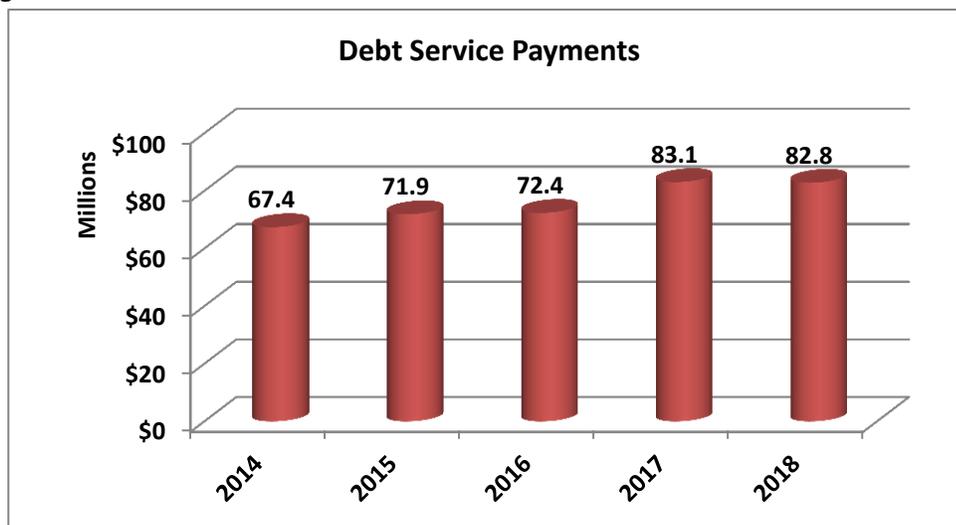


As discussed in more detail below, even though the County has unrestricted cash in the sewer fund, the County cannot use the available cash on hand for capital projects. Instead, the County needs to finance its capital programs through debt financing. The County will use the available cash, however, to significantly decrease the overall debt service requirements by issuing COPs (with accelerated repayment schedules) and by prepaying existing debt as soon as possible. After 2018, it is anticipated that the County will be able to finance ongoing sewer capital needs through recurring issues of Certificates of Participation to enable the County to pay for capital improvements on essentially a modified pay as you go basis.

**Debt Service Payments:** Because the County must issue significant debt in the next few years to fund its sewer projects, total debt service payments are expected to continue to increase. Debt service for the current fiscal year will be \$67.4 million, up from \$58.0 million last year.

As additional debt issued, the debt service payments will increase by \$4.5 million to be \$71.9 million for Fiscal Year 2014-15. These estimates are based on an assumption that future debt will have an interest rate of 3.08 percent in Fiscal Year 2013-14, and at 5.5% thereafter. The current year's rate reflects the favorable interest rates Pima County received in the January 2014 sewer revenue debt issue. Future interest rates in the municipal debt markets, however, are highly unpredictable, and any major change will require re-evaluation of this assumption. Projected annual debt service payments through Fiscal Year 2017-18 are show in Figure 5.

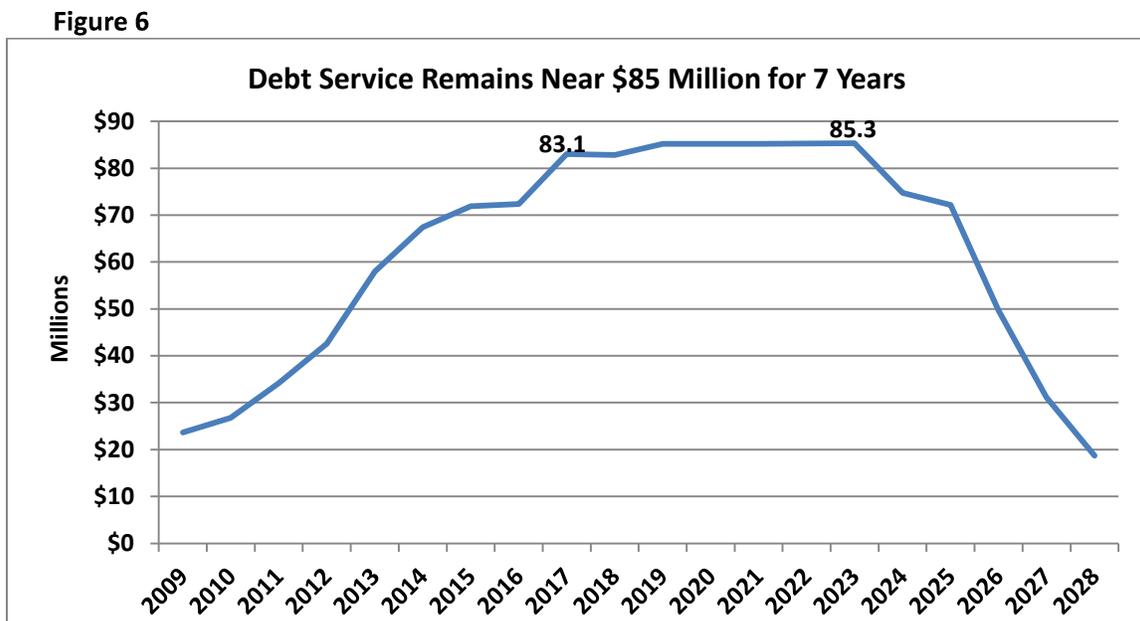
Figure 5



The projections of debt service for future debt include an assumption that Pima County will use available cash to accelerate the payment of principal on debt and thereby reduce debt service requirements. This financial plan incorporates using cash to pay down \$38.1 million of existing debt in Fiscal Year 2016-17 and to pay \$60 million through new Certificates of Participation. Debt service for the COPs is not included as part of the debt service shown above, but is still

paid with unrestricted cash from the system. Debt service is expected to continue to increase to slightly more than \$85 million and remain near that level for seven years, beginning to decrease rapidly after Fiscal Year 2022-23. The decline begins in 2023 because the County issues debt for no longer than 15 years, and 2023 will be 15 years after the ramp up of debt needed for the ROMP program.

Figure 6 shows the historical rise in debt service payments and the projected payments through 2028. It is important to note that these estimates assume that the County issue no new sewer revenue pledged debt after 2018. This assumption is based on staff’s belief that the County will be able to use recurring COPs to fund ongoing capital projects after 2018. If the County does issue more debt secured by sewer revenues after 2018, the estimated debt service will increase.



These amounts do not reflect the additional payment of debt service that occurs outside of the budget for the Regional Wastewater Reclamation Department. As shown in the Assumptions in Appendix A, additional payments for debt relating to the COPs and for the early prepayment of existing debt add an additional \$137.2 million of debt service being paid. This results in payments as high as \$134 million and a total of \$514.8 million through Fiscal Year 2017-18.

2014	2015	2016	2017	2018	Total
\$ 102,985,879	\$ 97,133,067	\$ 85,681,336	\$ 133,950,215	\$ 95,009,754	\$ 514,760,251

Although the current rate structure will generate sufficient revenue to meet these debt service payments, unless system growth exceeds the population estimates, the revenues will not be sufficient to provide adequate debt service ratios to maintain the current favorable bond ratings.

**Debt Service Ratio – Net Operating Revenue to Debt Service:** After paying for operational expenses, the remaining revenue, known as “net operating revenues” (i.e., total system revenues less the O&M expenses) must still be sufficient (1) to meet the required debt service payments and required reserves, and (2) to have a sufficient margin necessary to enable the County to maintain favorable bond ratings. To minimize debt service, the County issues only enough debt to provide cash needed within the next 12 months for the capital improvement program. Absent any rate increases, the net operating revenues from the system are expected to decline to about \$91 million as total revenues increase at a slower rate than increases in expenses. During this same period, debt service is expected to increase from \$67.4 million to \$83.1 million by Fiscal Year 2016-17, an increase of \$16 million, or 22.8 percent.

Appendix B provides detail of the projected revenues, expenses and net operating revenues of the system. Figure 7, below, shows the relationship between projected net revenues (after operating expenses) available and the projected debt service through Fiscal Year 2017-18.

Figure 7

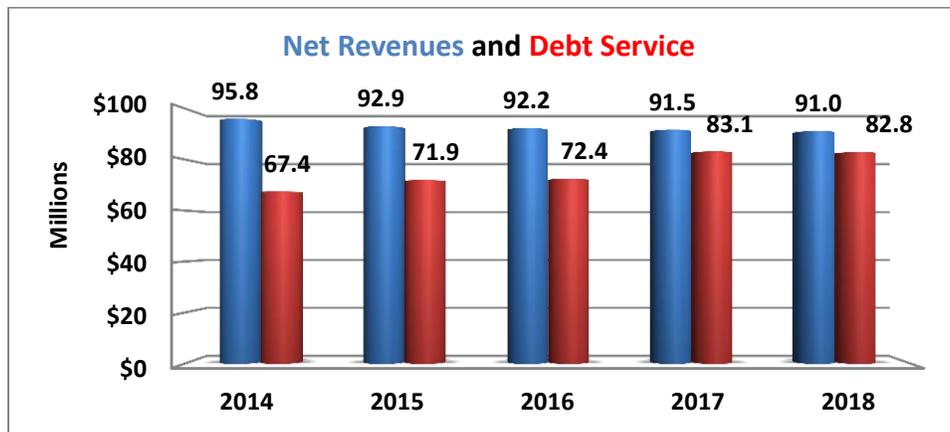
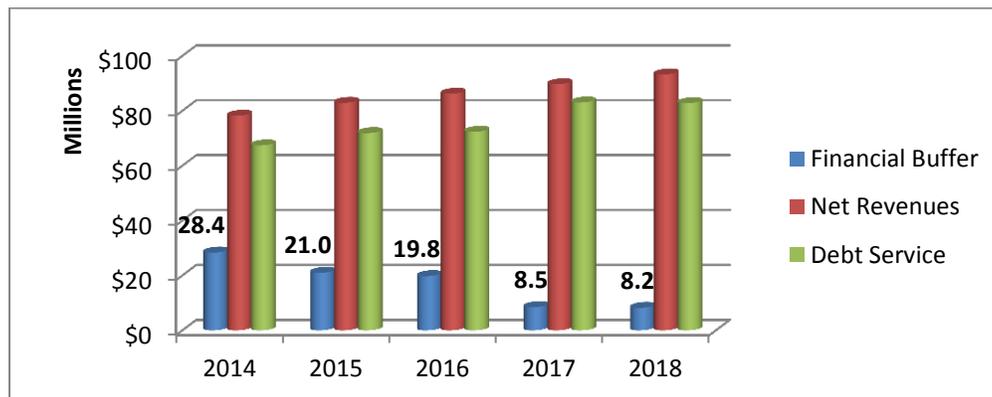


Figure 8 below illustrates the gradual decline in the financial buffer needed to maintain sufficient debt service ratios.

Figure 8

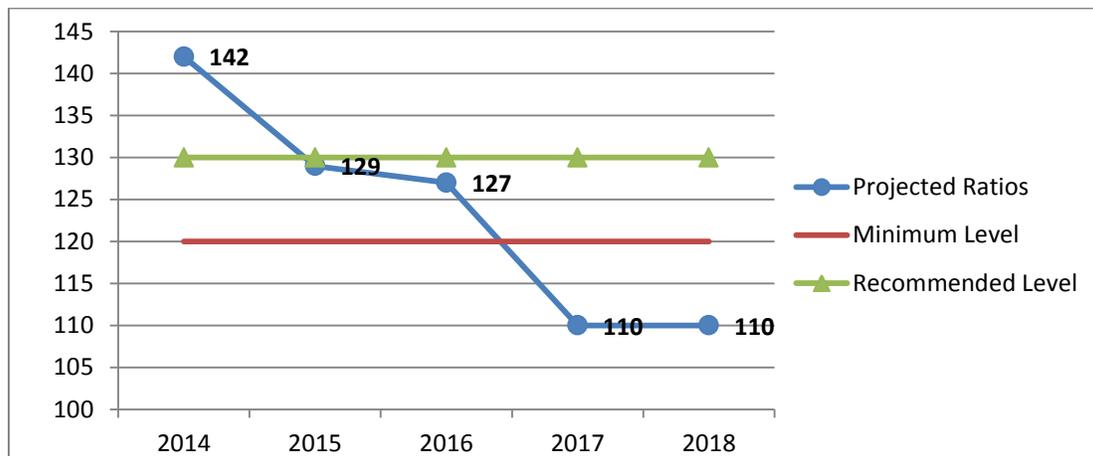


The excess of net revenues over required debt service is one of the key factors used by rating agencies in setting the County’s bond rating for sewer debt. The ratio between those two amounts each year is called the **debt service ratio**:

$$\text{Debt Service Ratio} = \frac{\text{Net Operating Revenues}}{\text{Debt Service Payment}}$$

This year, net operating revenues are projected to be \$95.8 million and debt service is projected to be \$67.4 million, yielding a debt service ratio of 142 percent (or 1.42x). By Fiscal Year 2014-15, given the current assumptions of limited growth in revenues and expenses but rapid growth in debt service, the debt service ratio is expected to drop to 129 percent (1.29x), and continue dropping to a low of 110 percent (1.10x) by Fiscal Year 2016-17. Figure 9 shows the downward trend in the debt service coverage ratio based on current projections without a rate increase.

**Figure 9 Debt Service Coverage Ratio**



Based on the current projections of increases in user fees, connection fees and operating expenses, the County will not be able to maintain adequate debt service ratios without additional rate increases in future years. The County will need to adopt rate increases taking effect no later than Fiscal Year 2015-16. Standard & Poor’s rating agency, which rates the County’s sewer debt, has indicated that a debt service ratio of 130 percent is key to maintaining favorable ratings.

The County would need either to adopt one significant rate increase or a series of moderate multi-year increases taking effect for Fiscal Year 2015-16. As discussed in the final section below, the County will likely need to adopt rate increases of 3 to 4 percent annually for several years.

### **The Regional Wastewater Reclamation Advisory Committee Recommendation.**

The Regional Wastewater Reclamation Advisory Committee discussed the possibility of future rate increases at its April 18, 2013, meeting and adopted a recommended goal of achieving debt service ratios of 130 percent (see Appendix C). This goal matches the 130 percent ratio expressed in the Standard & Poor's financial analysis (see Appendix D) as the debt service ratio level that should be achieved to maintain the County's favorable sewer revenue bond ratings.

**Cash Reserves, Cash Balances and the Expenditure Limitation:** Pima County has several types of restricted and designated cash accounts to meet the various debt covenants as well as to establish an emergency fund to enable the County to handle unexpected events. These restricted and designated cash accounts include:

1. **Emergency Reserve Fund** – Beginning in 2010, \$20 million was set aside and designated by the Board of Supervisors as an Emergency Reserve Fund. The fund is for unexpected events affecting the ongoing operations of the system.
2. **Operating Reserve Fund** – The County maintains 90 days of anticipated operating expenses in this restricted fund. This fund currently has approximately \$19.6 million in reserve. By the end of next fiscal year, Fiscal Year 2014-15, the reserves are projected to be \$20.7 million.
3. **Debt Service Reserves** – The County maintains a restricted fund used to set aside cash for debt service payments. Every month, the County transfers one-twelfth of budgeted annual debt service into this reserve account to ensure cash is available for the annual debt service payments. Additionally, the County deposits cash with WIFA or with trustee banks for debit issues. Those cash deposits are held as security for future payments of debt. These funds held by others will be applied to the final debt service payments for the respective debt. The County has \$33.0 million for debt service reserve in the County fund or held either by WIFA or by the trustee banks servicing sewer revenue obligations. By the end of next fiscal year, Fiscal Year 2014-15, these debt reserves are projected to increase to \$34.1 million.
4. **Use of Unrestricted Cash Balances** – At the March 9, 2010 Board of Supervisors meeting, the Board adopted a series of future rate increases and, simultaneously, restricted any unrestricted cash balances to be used for reduction of debt or for rebate of sewer fees. To this end, the County plans to retire debt as soon as the debt instruments are callable. During Fiscal Year 2016-17, the County will call and prepay \$38.1 million of sewer revenue bonds and WIFA loans as they become callable. Additionally, the County issued Certificates of Participation in 2013, with \$60 million of the proceeds being used to pay for sewer infrastructure. Unrestricted cash balances are being used to repay the sewer portion of this debt in less than three years, with \$35 million of this debt having already been repaid at the time of this report. The County intends to issue an additional \$60 million of COPs in 2015 with repayment within six years. These actions significantly reduce future debt and interest.

### **Expenditure Limitation Impact to Wastewater Projects:**

Due to the constitutional expenditure limitations restrictions in Article IX, Section 20, of the Arizona Constitution, the County is not able to use available cash to fund capital improvements on a “pay as you go” basis. The expenditure limitation restricts the use of "local revenues" which consist of primary property taxes, impact and connection fees, and any other fees charged for County services, including all fees charged for sewer services. The County may not exceed the expenditure limit even if the County has cash available to spend.

Although the County cannot use the cash to fund projects on a “pay as you go” basis, the County can use the cash to pay debt service without impacting the expenditure limit. In order to comply with the expenditure limitation, the County must fund sewer capital projects with borrowed funds, and use available unrestricted cash to pay the debt service on such funds. The use of the COPs described above enables the County to finance sewer improvements using relatively short term financing at very favorable rates. Such financing technique allows the County to essentially have a modified “pay as you go” approach to financing sewer improvements.

**Rating Agencies:** Pima County currently receives ratings from Fitch Ratings and from Standard & Poor’s for debt issued by the County, including sewer revenue debt. The most recent rating reports from these agencies, issued for the January 2014 debt issue gave Pima County sewer debt an AA rating from Fitch and an AA- rating from Standard & Poor’s. Each rating agency issued a report explaining its analysis of Pima County’s financial condition for its sewer debt. Those reports are attached in Appendix D. The bond ratings reflect the rating agencies evaluation of the financial stability of the County and its ability to repay debt. As ratings increase, the interest rates offered by lenders decrease, making the overall debt cost to the County lower. For the \$250 million of debt the County will be issuing in the next four years, a decrease in the ratings level would likely cause the County to pay at least 15 to 20 basis points (0.15% to 0.20%) higher interest rate which would result in about \$3 million to \$4 million of additional interest over the terms of the debt.

The rating agencies emphasize the historic willingness of the County to increase rates to provide funds for operations and debt service payments. The agencies point to the County’s strong liquidity from the cash held in reserves and the additional cash generated from operations. In its report, Fitch Ratings discusses the increased debt service costs, but states that, although coverage has declined, “given the county’s history of enacting rate increases, in some cases up to two rate hikes within one fiscal year, Fitch believes management will take the necessary steps to maintain the system’s good financial performance.” Standard & Poor’s Rating Services states that “[t]he stable outlook reflects our expectation that management will adjust sewer rates and fees as needed to maintain total DSC [debt service coverage]...at or above 1.3x while maintaining liquidity position close to the forecast.”

**Need For Future Sewer Rate Increases:**

Since Fiscal Year 1997-98, Pima County has adopted numerous rate increases to deal with the need to fund the increasing costs of operating the system and to fund the unusually large capital program that began in Fiscal Year 2007-08. Table 1 below identifies those rate increases. Prior to the substantial rate increases that were needed for the ROMP capital projects, the County routinely increased user fee rates at a 3.93 percent annual average from 1998 and 2006.

**Table 1  
 SUMMARY OF PERCENTAGE INCREASES IN  
 RESIDENTIAL USER FEE RATES SINCE 1997**

<u>Fiscal Year</u>	<u>User Fee Percentage Rate Increases</u>
1997-98	4.30
1998-99	0
1999-00	5.30
2000-01	5.00
2001-02	3.80
2002-03	5.00
2003-04	0
2004-05	4.00
2005-06	8.00
2006-07	12.00
2007-08	15.00
2008-09	22.25
2009-10	25.50
2010-11	10.00
2011-12	10.00
2012-13	10.00
2013-14	10.00

In order to maintain a debt service ratio of 130 percent, by Fiscal Year 2017-18, the County will need to increase projected net operating revenues by approximately \$16.6 million, which will require additional rate increases similar to historic rate increases prior to the ROMP program.

The Finance Subcommittee of the Regional Wastewater Reclamation Advisory Committee met several times to review drafts of this report. At its February 5, 2014 meeting, the Subcommittee reviewed possible future rate increases that would be needed in order to meet the County's goal of maintaining a minimum debt service ratio of at least 1.30x. Based on assumptions detailed in Appendix A and the forecasts shown in Appendix B, future user fee rate increases would likely need to be 4.0 percent beginning July 1, 2015 and 5.5 percent beginning July 1, 2016. The impact of such rate increase are shown on Appendix E. Such rate increases would, based on the assumptions in this report, keep the debt service ratio at or near the 1.30x level.

It is important to maintain such a minimum debt service ratio to maintain Pima County's favorable bond ratings for its sewer revenue bonds. Although the County is nearing the end of debt issues for the ROMP program and other sewer projects and will begin to rely more on the modified pay-as-you-go described above, maintaining favorable sewer debt ratings is crucial for Pima County's entire bond program. Pima County is planning upcoming elections for various countywide capital needs that would be funded with General Obligation bonds paid for through the debt service tax levy. If Pima County does not maintain a favorable bond rating for its sewer debt and if its sewer debt were to be downgraded, the ripple effect on future bond programs could be significant either in discouraging voters from approving the program or causing the County to pay higher interest rates on its non-sewer related debt as well.

The sewer debt currently outstanding represents about 50 percent of the County's total debt. The County's sewer revenue debt is currently \$686,949,697, and the County's COP debt relating to sewer projects is \$24,685,000. Thus, ultimately, sewer revenues will be needed to cover \$711.6 million of current debt as well as cover the additional \$195 million of new debt to be issued in the next four years. The debt service for sewer related debt issues are shown in Appendix F, excluding the portion of COPs debt for which the County is primarily liable. Appendix F shows the current debt service as well as the additional amount expected as the new debt describe in this report is issued. If Pima County's sewer debt were to be downgraded because the County failed to maintain a minimum debt service ratio, the impact would be detrimental not only to the cost of the Wastewater projects but also to all of the other County capital projects as well.

In order to maintain adequate bond ratings for existing and future sewer revenue debt, the County needs to continue to adopt rate increases in the future to generate adequate financial resources for the Regional Wastewater Reclamation Enterprise Fund. Based on the analysis contained in this report, such rate increases are currently expected to be 4.0 percent for Fiscal Year 2015-16 and 5.5 percent for Fiscal Year 2016-17.

**Recommendations:**

The Pima County Finance and Risk Management Department is recommending:

1. The continuation of the existing user fee structure and connection fee structure for the remainder of this fiscal year and for Fiscal Year 2014-15, with no rate increases.
2. The issuance of \$135 million of new sewer revenue obligations and \$60 million of COPs in the upcoming years as follows:
  - a. \$20 million of sewer revenue obligations and \$60 million of certificates of participation in Fiscal Year 2014-15,
  - b. \$50 million of sewer revenue obligations in Fiscal Year 2015-16,
  - c. \$35 million of sewer revenue obligations in Fiscal Year 2016-17, and
  - d. \$30 million of sewer revenue obligations in Fiscal Year 2017-18.
3. The early repayment of \$38.1 million of WIFA Loans and sewer revenue bonds as that debt becomes callable in Fiscal Year 2016-17.
4. During Fiscal Year 2014-15, adopt rate increases beginning in Fiscal Year 2015-16 through Fiscal Year 2017-18 in order to maintain adequate debt service ratios in future years.

## **List of Appendices**

**Appendix A** – Key Assumptions used for Financial Plan

**Appendix B** – Five Year Financial Projections with Approved Rate Increase for July 1, 2013

**Appendix C** – Regional Wastewater Reclamation Advisory Committee Letter Regarding Goal of  
130 Percent Debt Service Ratio

**Appendix D** – Reports by Rating Agencies

**Appendix E** – Impact of Possible Rate Increases

**Appendix F** – Total Debt Service By Type of Debt

## APPENDIX A

FINANCIAL ASSUMPTIONS  
2014 Wastewater Financial Plan  
As of February 2, 2014

		Current Year					Comments
ASSUMPTION REGARDING:		2014	2015	2016	2017	2018	
1	User Growth rate	1.000%	1.400%	1.500%	1.600%	1.780%	Rates based on the "Medium Growth" estimates issued by Pima Association of Governments in 2013
2	Rate Increases:						For planning purposes, assumes no rate increases beyond those approved by Board of Supervisors in 2010
	User Fee increases	10.00%					
	Service Charge	6.50%					
3	Connection Fees Growth Factor	1.000%	1.400%	1.500%	1.600%	1.780%	Rates based on the "Medium Growth" estimates issued by Pima Association of Governments in 2013
4	Annual rate of expense increase	6.30%	6.00%	4.00%	4.00%	4.00%	Current year is based on Projected Expenses compared to prior year's actual; FY 15 is based on the requested budget submitted by RWRD; for future years assumption of 4% growth in operating costs over prior year's actual costs.
5	Capital Projects	97,209,954	83,973,378	48,821,913	35,163,190	32,576,282	Amounts per January 27, 2014 download of CIP Projects.
6	Debt Assumptions						
	Sewer Obligations	55,000,000	20,000,000	50,000,000	35,000,000	30,000,000	Sewer Obligations for CIP cash flow needs.
	COPS Issues		60,000,000				COPs size is limited by available collateral.
7	Interest Rate Assumptions						
		3.08%	5.50%	5.50%	5.50%	5.50%	Interest rate for FY 14 is actual from January 2014 sale; future interest is based on recommendation from County's Financial Advisor.
8	Cash used to pay down debt quickly:						Total of \$137.2 million used to pay down debt quickly and reduce debt service payments.
	Debt service on \$60,000,000 issued in 2013	35,574,701	25,250,675				
	Debt service on \$60,000,000 issued in 2015			13,300,000	12,750,000	12,200,000	
	Prepay balance of 2004 WIFA Loan				10,305,275		
	Prepay balance of 2007 Bonds				27,840,000		
		35,574,701	25,250,675	13,300,000	50,895,275	12,200,000	

# APPENDIX B

Revised: 1/27/14

Regional Wastewater Reclamation Department Enterprise Fund  
 Five Year Financial Projections Assuming No Rate Increases  
 Fiscal Years 2014 through 2018

	Period 6 Projections	2014-15	2015-16	2016-17	2017-18
	2013-14				
<b>System Revenues:</b>					
Sewer Utility Service	\$ 159,878,656	\$ 162,112,617	\$ 164,539,656	\$ 167,167,331	\$ 170,137,391
Sewer Connection Revenue	12,839,358	13,019,091	13,214,357	13,425,775	13,664,758
Engineering Review & Inspection Fees	100,000	100,000	100,000	100,000	100,000
Other Income	1,174,793	582,257	566,658	554,868	430,055
<b>Total Revenues</b>	<b>173,992,807</b>	<b>175,813,965</b>	<b>178,420,671</b>	<b>181,247,974</b>	<b>184,332,205</b>
<b>Operations and Maintenance Costs:</b>					
Employees Compensation	35,485,753	33,400,456	34,736,474	36,125,933	37,570,971
Consultants and Outside Services	7,932,748	12,051,965	12,534,044	13,035,405	13,556,822
Treatment Supplies and Chemicals	7,628,441	7,394,347	7,690,121	7,997,726	8,317,635
Utilities	7,818,626	7,669,756	7,976,546	8,295,608	8,627,432
Sludge	1,451,582	1,175,101	1,222,105	1,270,989	1,321,829
Repairs & Maintenance	5,626,534	5,689,465	5,917,044	6,153,725	6,399,874
General and Administrative	10,572,149	14,048,909	14,610,865	15,195,300	15,803,112
Capital Expenses	1,706,116	1,502,357	1,562,451	1,624,949	1,689,947
<b>Total Operations and Maintenance Costs</b>	<b>78,221,949</b>	<b>82,932,356</b>	<b>86,249,650</b>	<b>89,699,636</b>	<b>93,287,622</b>
<b>Net Revenues</b>	<b>95,770,858</b>	<b>92,881,609</b>	<b>92,171,021</b>	<b>91,548,338</b>	<b>91,044,583</b>
<b>Debt Service Payments</b>					
Principal	37,024,678	38,461,303	37,704,369	45,230,553	44,763,626
Interest	29,489,989	27,984,189	26,258,635	24,461,381	21,150,494
<b>Total Existing Debt Service Payments</b>	<b>66,514,667</b>	<b>66,445,492</b>	<b>63,963,004</b>	<b>69,691,934</b>	<b>65,914,120</b>
Proposed New Debt Service	896,511	5,436,900	8,418,332	13,363,005	16,895,634
<b>Total Debt Service Payments</b>	<b>67,411,178</b>	<b>71,882,392</b>	<b>72,381,336</b>	<b>83,054,940</b>	<b>82,809,754</b>
Debt Service Coverage - Bond Rating Agency	1.42	1.29	1.27	1.10	1.10
Debt Service Coverage - Excluding non-recurring revenue	1.23	1.11	1.09	0.94	0.93

# Appendix C



**REGIONAL WASTEWATER RECLAMATION ADVISORY COMMITTEE**  
201 NORTH STONE AVENUE  
TUCSON, ARIZONA 85701-1207

May 21, 2013

The Honorable Chairman and Members  
Pima County Board of Supervisors  
130 West Congress Street, 11th Floor  
Tucson, Arizona 85701

**RE: Pima County Regional Wastewater Reclamation Department (RWRD) – 2013 Financial Plan**

Dear Chairman and Members of the Board:

The Regional Wastewater Reclamation Advisory Committee's (RWRAC) principal function and responsibility is to annually review the financial details of the RWRD and to provide guidance and/or recommendations, as necessary, to both the department and to the Board of Supervisors (BOS).

Due to the level of detail and time required to appropriately accomplish this, a Financial Sub-Committee of the RWRAC was formed and has been meeting since December 12, 2012. The Financial Sub-Committee took the lead in the review of the Financial Plan, holding monthly discussions with Finance and Risk Management Department (FRMD) staff. Over these past few months, both the RWRAC and, in a much more focused environment, the RWRAC Financial Sub-Committee reviewed updates and revisions to the RWRD 2013 Financial Plan provided by FRMD.

The 2013 Financial Plan recommends the following:

- Continuation of the existing user fee structure as adopted by the BOS in 2010 with the last scheduled annual increase on July 1, 2013;
- No rate increase for Fiscal Year 2014-15;
- Evaluation to determine whether or not a rate increase will be necessary in Fiscal Year 2015-16 in order to maintain adequate debt service ratios in future years and to ensure favorable bond ratings.

As a result of these discussions, the RWRAC, at its April 18, 2013 meeting, unanimously adopted a recommended goal of a bond debt service ratio of 130 percent in order to maintain an adequate ratio that will ensure favorable bond ratings in the future.

**The Honorable Chair and Members, Pima County Board of Supervisors**  
**RE: Regional Wastewater Reclamation Department - 2013 Financial Plan**  
**Page 2 of 2**

In addition, at the RWRAC meeting on May 16, 2013, the Committee made a motion to approve the 2013 RWRD Financial Plan. The motion passed unanimously.

On behalf of the RWRAC, I would like to advise the Board of Supervisors of these two actions by the RWRAC, which unanimously support the 2013 RWRD Financial Plan. The Committee members and I are available at your convenience for questions or further discussion.

Sincerely,

A handwritten signature in black ink, appearing to read "Ann Marie Wolf", with a long, sweeping underline.

Ann Marie Wolf, Chair  
Regional Wastewater Reclamation Advisory Committee

- c:      Members, Regional Wastewater Reclamation Advisory Committee  
         C.H. Huckelberry, County Administrator  
         John M. Bernal, P.E., Deputy County Administrator — Public Works  
         Jackson Jenkins, Director, Regional Wastewater Reclamation Department

# Appendix D

## **FITCH RATES PIMA COUNTY, AZ'S \$51MM SEWER SYSTEM REVENUE OBLIGATIONS 'AA-'; OUTLOOK STABLE**

Fitch Ratings-Austin-19 December 2013: Fitch Ratings assigns an 'AA-' rating to the following Pima County, Arizona's (the county) revenue obligations:

--\$50.7 million sewer system revenue obligations, series 2014.

The bonds are expected to sell via negotiation the week of Jan. 20, 2014. Proceeds will be used to finance improvements and extensions to the county sewer system and pay costs of issuance.

In addition, Fitch affirms the following ratings:

--\$151.7 million in outstanding senior lien revenue obligations at 'AA';

--\$486.8 million in outstanding subordinate lien sewer system revenue obligations at 'AA-'.

The Rating Outlook is Stable.

### **SECURITY**

The series 2014 obligations are payable from installment payments made by the county to the trustee. The county's obligation to make the installment payments is secured by pledged revenues (net revenues, including unrestricted cash balances) of the county's sewer system (the system); such lien on, pledge of, and security interest in the pledged revenues (exclusive of the unrestricted cash balances which are only pledged to the subordinate lien sewer system revenue obligations) is subordinate to the prior pledge and lien on outstanding senior lien debt. The senior lien is closed.

### **KEY RATING DRIVERS**

**BELOW-AVERAGE DEBT SERVICE COVERAGE:** Debt service coverage (DSC), exclusive of pledged unrestricted cash balances, has weakened in recent years due to increased debt service costs, and ongoing DSC is expected to remain below-average.

**HIGH LIQUIDITY ENHANCES FINANCIAL PROFILE:** Offsetting lower DSC, the county's very strong cash balances provide a great deal of flexibility.

**HIGH DEBT BUT CAPITAL COSTS DECLINING:** Debt levels are relatively high and will continue to increase with additional planned debt issuances. Nevertheless, capital costs are beginning to ramp down and are expected to drop considerably beyond the five-year horizon; debt is also retired rapidly.

**PRESSURED RATE BASE:** The county prudently adopted a series of automatic annual rate increases to counter the anticipated rise in fixed costs over the fiscal 2011 to 2014 period. User charges at 1.0% of median household income (MHI) as of fiscal 2013, however, are right at Fitch's affordability threshold.

**STABLE ECONOMY:** The service area is anchored by the presence of the military and defense industry that provide some stability; county unemployment rates are below state but above national levels.

### **RATING SENSITIVITIES**

**STRONG CASH BALANCES KEY:** Declining liquidity could lead to a lowering of the rating in light of expectations of below-average DSC through the forecast period.

## CREDIT PROFILE

### MIXED FINANCIAL METRICS

Coverage has declined in the last two fiscal years, with total DSC (exclusive of pledged unrestricted cash balances) coming in at 1.5x in fiscal 2013. Including planned issuances totaling \$195 million over the next five years (including the current debt issuance); all-in coverage is forecast to drop to a low of 1.2x by fiscal 2017. However, given the county's history of enacting rate increases, in some cases up to two rate hikes within one fiscal year, Fitch believes management will take the necessary steps to maintain the system's good financial performance.

Furthermore, it should be noted that the aforementioned projections do not include additional rate increases beyond fiscal 2014 nor do they include unrestricted cash balances, which are legally pledged to the subordinate lien sewer system revenue obligations and can only be used to pay debt service or provide rate relief. When projected unrestricted cash balances are included, all-in coverage estimates are 2.0x or better in each year throughout the forecast period.

Counterbalancing the downward DSC trend, liquidity has been steadily increasing, and was a high 845 days cash on hand and 639 days working capital in fiscal 2013. The county recently increased both its emergency and operating reserves, and constitutional expenditure limitations restrict the amount of cash from revenues or fees that can be used for capital expenditures. Bond proceeds are excluded from the expenditure limitation.

The increase in reserve amounts, combined with the spending limitations, should help maintain strong liquidity levels and/or facilitate the acceleration of debt payments. In fact, the county plans to use some of its excess cash reserves to retire debt early.

### CAPITAL IMPROVEMENT PLAN RAMPING DOWN

Capital needs over the next five years are expected to cost an estimated \$333 million. Some of the more notable projects in the plan are for biosolids facility improvements, decommissioning of the 50-year old Roger Road Water Reclamation Facility, interceptor rehabilitation projects and system-wide conveyance rehabilitation and augmentation projects. The county has substantially met future permitting requirements for environmental compliance, and consequently most of its needs will have been met after this plan is completed unless growth-related needs emerge.

### DEBT LEVELS TEMPERED BY RAPID AMORTIZATION

Given the constitutional limitations on cash spending for capital, the county plans to primarily debt-fund its CIP over the next five years. Debt levels currently are high with debt per customer at \$2,408. The county plans to issue an additional \$135 million in parity debt (in addition to the current issuance) over the next five years, which will drive leverage ratios even higher.

However, due to the rapid amortization of debt and the decline in capital needs beginning in fiscal 2016, debt levels are projected to descend at a moderately rapid pace post-2015, assuming future capital needs are low. Debt per customer is projected at \$2,867 in fiscal 2018. Amortization of debt, including the current issuance, is very rapid, with principal payout at 77% and 100% in 10 and 15 years, respectively.

### GROWING DEBT SERVICE REQUIREMENTS PRESSURE RATES

To cover the anticipated rise in debt service costs, the county enacted automatic annual rate hikes over fiscal years 2011-2014; the final approved rate increase became effective on July 1, 2013 (fiscal 2014). While no rate increases are included in the county's financial projections, staff plans to propose modest rate increases for fiscals 2016 and 2017. The county will conduct a review of its rate adequacy as part of the annual budget process. With a monthly bill at \$37.52 (assuming sewer flows of 6,000 gallons per month), rates currently are at Fitch's affordability threshold at 1.0% of MHI.

#### SERVICE AREA BENEFITS FROM STABLE ECONOMY

The county provides wastewater service to the Tucson metropolitan statistical area (MSA) and separate outlying areas in eastern Pima County. The system serves a population of approximately 1 million through more than 265,000 sewer connections. Together the wastewater facilities have a combined capacity of 97.1 million gallons per day (MGD), with sewer flows averaging 61 MGD.

Tucson is Arizona's second largest city and the Pima County seat. Fitch rates the county's general obligation bonds 'AA' with a Stable Outlook. The area's economy is diverse, featuring military and defense, higher education, healthcare, government, and manufacturing as primary anchors. County unemployment levels at 7.7% as of August 2013 are below state (8.7%) but above national (7.3%) averages. County wealth levels are slightly below state and national levels.

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Additional information is available at '[www.fitchratings.com](http://www.fitchratings.com)'.

In addition to the sources of information identified in Fitch's U.S. Municipal Revenue-Supported Rating Criteria, this action was additionally informed by information from Creditscope.

#### Applicable Criteria and Related Research:

- 'Revenue-Supported Rating Criteria' (June 3, 2013);
- 'U.S. Water and Sewer Revenue Bond Rating Criteria' (July 31, 2013);

--'2014 Water and Sewer Medians' (Dec. 12, 2012);  
--'2014 Outlook: Water and Sewer Sector' (Dec. 12, 2013).

Applicable Criteria and Related Research:

Revenue-Supported Rating Criteria

[http://www.fitchratings.com/creditdesk/reports/report\\_frame.cfm?rpt\\_id=709499](http://www.fitchratings.com/creditdesk/reports/report_frame.cfm?rpt_id=709499)

U.S. Water and Sewer Revenue Bond Rating Criteria

[http://www.fitchratings.com/creditdesk/reports/report\\_frame.cfm?rpt\\_id=715275](http://www.fitchratings.com/creditdesk/reports/report_frame.cfm?rpt_id=715275)

2014 Water and Sewer Medians

[http://www.fitchratings.com/creditdesk/reports/report\\_frame.cfm?rpt\\_id=724358](http://www.fitchratings.com/creditdesk/reports/report_frame.cfm?rpt_id=724358)

2014 Outlook: Water and Sewer Sector

[http://www.fitchratings.com/creditdesk/reports/report\\_frame.cfm?rpt\\_id=724357](http://www.fitchratings.com/creditdesk/reports/report_frame.cfm?rpt_id=724357)

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## Summary:

## Pima County, Arizona; Water/Sewer

### **Primary Credit Analyst:**

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## Table Of Contents

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Rationale

Outlook

Related Criteria And Research

## Summary:

# Pima County, Arizona; Water/Sewer

### Credit Profile

US\$50.74 mil swr sys rev obs ser 2014 due 07/01/2028

<i>Long Term Rating</i>	AA-/Stable	New
Pima Cnty swr (AGM)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Upgraded
Pima Cnty swr (ASSURED GTY)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Upgraded

## Rationale

Standard & Poor's Ratings Services has raised its ratings on Pima County, Ariz.'s sewer system revenue bonds to 'AA-' from 'A+' and on Pima's prior-lien sewer improvement and refunding revenue bonds to 'AA' from 'AA-'. At the same time, Standard & Poor's assigned its 'AA-' rating to the county's sewer system revenue bonds, series 2014. The outlook is stable.

The upgrade reflects our view of Pima's demonstrated willingness to raise sewer rates and fees as needed to maintain senior debt service coverage (DSC) and total DSC at levels we consider strong and good, respectively. The upgrade also reflects our analysis of a strong liquidity position that we expect to continue and a decreased reliance on connection fees and nonrecurring revenue sources. We expect management to adjust rates as needed to ensure annual total DSC of no less than about 1.3x (excluding unrestricted cash balance).

The 'AA' rating reflects our view of a closed lien structure and our expectation of very strong DSC levels. These bonds have a senior claim on net system revenues. Pima has covenanted not to issue any additional prior-lien obligations that would have a claim on net revenues senior to that of the 2010, 2011A, 2011B, 2012A, and 2014 bonds.

The ratings reflect our opinion of the sewer system's:

- Service area, which encompasses the large and diverse Pima County regional economy, including the City of Tucson;
- Demonstrated willingness to adjust rates (that we consider affordable) to maintain very strong senior and good subordinate DSC ratios (excluding unrestricted cash balance), while reducing reliance on connection fees and other nonrecurring revenue sources; and
- Strong liquidity position that is a formal policy to target three months' operations and an emergency fund with a \$20 million balance bolster further.

We believe the following factors partially offset these strengths:

- A five-year, \$333 million capital plan (that includes projects to meet regulatory permit requirements by Jan. 31, 2014) that Pima projects will require approximately \$145 million in additional sewer revenue bonds (and \$60 million from county-backed certificates of participation that will be repaid on a subordinate basis from unrestricted cash

over six years) to finance; and

- Reliance on future rate increases to maintain good total DSC (Standard & Poor's-calculated) as debt service requirements escalate.

A subordinate lien on sewer system net revenues and unrestricted cash balances secure the proposed bonds, the proceeds of which will pay a portion of the costs of the construction, expansion, and improvement of sewer treatment facilities; and conveyance systems for the county's sewer system.

After the proposed bond issue, Pima will have approximately \$151.7 million of prior-lien obligations (which includes loans by the state's Water Infrastructure and Finance Authority) and approximately \$537.5 million of total parity obligations outstanding, the 2014 bonds having a junior claim on net system revenues. The county's sewer system has no outstanding variable-rate debt, swaps, or direct purchase obligations.

The 2014 bond provisions include a rate covenant to maintain rates, fees, and charges sufficient to cover 1.2x annual debt service on previous and parity obligations. The additional bonds test (ABT) requires 1.2x maximum annual debt service (MADS) coverage on previous and parity obligations. The ABT and rate covenant are somewhat weak, in our view, because revenues include the system's nonrecurring unrestricted cash balances, which totaled \$128.7 million for fiscal year-end 2013. The bond provisions for the 2014 bonds include a debt service reserve (DSR) funded at one-half of MADS from available cash, similar to the 2010 obligations, the 2011B bonds, and the 2012A bonds. Previous bonds require a DSR funded at average annual debt service. Bond provisions for the 2011A bonds, however, lack a DSR.

The Pima County Regional Wastewater Reclamation Department provides wastewater collection and treatment services to 265,726 customers in the Tucson metropolitan statistical and outlying service areas. The wastewater system's customer base increased an average of 2.8% a year from fiscal years 2000-2007 before slowing to 1.7% in fiscal 2008, 0.1%-0.7% in fiscal years 2009-2012, and 0.3% in fiscal 2013. New construction activity, particularly in the residential sector, had been what we view as very strong until a few years ago. New housing starts fell 82% to 2,179 in 2009 from a peak of 23,272 in 2005. Connection fees revenues have fallen gradually, to about \$11.4 million in fiscal 2013 from a peak of \$42.2 million in fiscal 2006. We attribute the decrease to slowed economic activity, population growth, and construction activity. System officials project connection fees of about \$13.1 million-\$13.9 million annually from fiscal years 2014-2018. The system is very diverse, in our view, with the 10 leading customers in fiscal 2013 generating only 4.2% of total system operating revenues.

As growth and connection fees have dropped off, county officials have consistently demonstrated a willingness to increase rates (in fiscal years 2003 and 2005-2014) to meet operational and debt service needs. Despite this, we still consider average monthly residential sewer bill affordable compared to service area wealth levels, at about \$50.29 based on current rates and 8,000 gallon usage. Annualized, this represents about 1.6% of Pima's 2012 median household effective buying income. Rate increases will fund the utility's large \$333 million capital plan in fiscal years 2014-2018 to meet wastewater treatment water quality requirements, projected and planned sewage needs, and needed rehabilitations. County officials have reported that they are ahead of schedule for meeting permit requirements. The Tres Rios wastewater reclamation facility (Ina Road) was substantially complete in October 2013, more than 3 months ahead of its regulatory required date of January 31, 2014. We expect the project to finish on budget. The Agua Nueva wastewater reclamation facility (Roger Road) is substantially complete, taking influent flow in December 2013,

more than one year ahead of its regulatory required date of Jan. 31, 2015. Management reports no other major regulatory requirement deadlines, just typical renewals for outlying facilities. The county projects needing to issue approximately \$145 million in additional parity sewer revenue bonds (and \$60 million from county-backed certificate of participation that it will repay subordinatedly from unrestricted cash over six years) in fiscal years 2015-2018 to fund the capital plan.

We believe the utility has had historically good overall DSC and liquidity due to the frequent rate increases. From fiscal years 2011-2013, DSC (Standard & Poor's-calculated) for prior-lien and parity obligations has gradually declined to 1.5x in fiscal 2013 from 2.3x in fiscal 2011, both of which we consider strong. The decline is mainly due to rising debt service requirements. For fiscal 2013, DSC (Standard & Poor's-calculated) for prior-lien obligations was 5.6x. These DSC figures exclude unrestricted cash balances. Connection fee revenue remains notably lower than amounts collected in the past. Sewer collection fee revenues declined gradually to \$11.4 million in fiscal 2013 from \$19.6 million in fiscal 2011, levels notably lower than the peak of \$42.2 million of fiscal 2006. DSC (Standard & Poor's-calculated) without connection fees from fiscal years 2011-2013 ranges from 1.3x-1.7x.

Projected system net revenues (excluding unrestricted cash balances) cover debt service obligations from fiscal years 2014-2016 by no less than about 1.3x, a level that we consider good, before falling to an adequate 1.15x and 1.17x in fiscal years 2017 and 2018, respectively. Excluding unrestricted cash balances and connection fees, projected total DSC ranges from about 1.00x-1.20x, while senior DSC is very strong, in our opinion, at no lower than 4.68x. These projections, however, do not assume any rate increases in fiscal years 2015-2018. The projections reflect, among other things, the impact of the last of the four automatic rate increases (6.5% for the monthly service charge and 10% for user fee rates) that went into effect July 1, 2013 (the beginning of fiscal 2014); debt service from this and future bond issues; and the county using cash to defease approximately \$38 million of previous obligations in fiscal 2017. Nevertheless, we expect total DSC (excluding unrestricted cash balances) to be at least 1.3x in fiscal years 2017 and 2018 because we expect management to request in early 2015 another multiyear automatic rate increase of 3% or more per year for fiscal years 2016-2018.

We believe system liquidity has been strong historically and we expect this to continue despite repaying the county for certificates of participation (COPs) issued to fund projects related to the sewer system.

Fiscal year-end audited unrestricted cash balances have provided no less than 167 days of operations from fiscal years 2011-2013. The system's high cash levels are due to the approved automatic rate increases. We expect the system's liquidity will remain strong. The county projects fiscal year-end cash balances remaining after reserves to average \$91.7 million from fiscal years 2014-2017. In addition, the system has board-adopted cash policies that include a 90-day operating reserve target and maintaining a \$20 million emergency reserve fund. As of Dec. 19, 2013, the emergency reserve fund balance totaled \$20 million and the operating reserve balance was approximately \$18 million, providing a combined 170 days' cash on hand based on projected fiscal 2014 operations. Management has a target of maintaining at least \$60 million in unrestricted cash through fiscal 2018. This does not include the emergency reserve fund or operating reserve. Including these, unrestricted days cash is no lower than 412 days from fiscal years 2014-2018. Because statutes limit the system on how much it can spend annually on expenditures, excess cash above cash balance targets will pay down principal or reduce user rates.

Similar to county-backed COPs issued in 2008 and 2009, which are paid off, Pima issued certificates of participation series 2013A for approximately \$80 million in May 2013, of which it will use \$60 million for funding system projects. Although no sewer revenues are pledged for the repayment of these COPs, the county intends to repay that portion of the COP issue from the sewer system's available unrestricted cash reserves. The repayment schedule is fixed with the sewer system making payments of \$35.6 million in fiscal 2014, \$20.2 million in fiscal 2015, and \$5.0 million in fiscal 2016. Although total fixed charge coverage based on actual results from fiscal years 2011-2013 exceeded 1.0x, total fixed charge coverage for fiscal 2014, based on county projections, is a slightly insufficient 0.9x, and adequate for fiscal years 2015-2018 at slightly above 1.0x. This assumes Pima will issue \$60 million COPs that it will use entirely for sewer-related projects and repay from the system's available unrestricted cash reserves. Our expectation that the system will maintain a strong liquidity position mitigates the insufficient total fixed charge coverage projected for fiscal 2014.

## Outlook

The stable outlook reflects our expectation that management will adjust sewer rates and fees as needed to maintain total DSC (Standard & Poor's-calculated, excluding cash balances) at or above 1.3x, while maintaining a strong liquidity position close to forecast. We don't expect to raise the ratings within the two-year outlook period given the county's borrowing plans. We don't expect to lower the rating in that period either, unless the system's liquidity position falls materially below forecast levels.

## Related Criteria And Research

### Related Criteria

- USPF Criteria: Key Water And Sewer Utility Credit Ratio Ranges, Sept. 15, 2008
- USPF Criteria: Standard & Poor's Revises Criteria For Rating Water, Sewer, And Drainage Utility Revenue Bonds, Sept. 15, 2008

### Ratings Detail (As Of January 7, 2014)

Pima Cnty swr subord (AGM) <i>Unenhanced Rating</i>	AA-(SPUR)/Stable	Upgraded
Pima Cnty swr sys rev rfdg bnds <i>Long Term Rating</i>	AA-/Stable	Upgraded
Pima Cnty swr sys (AGM) <i>Unenhanced Rating</i>	AA-(SPUR)/Stable	Upgraded

Many issues are enhanced by bond insurance.

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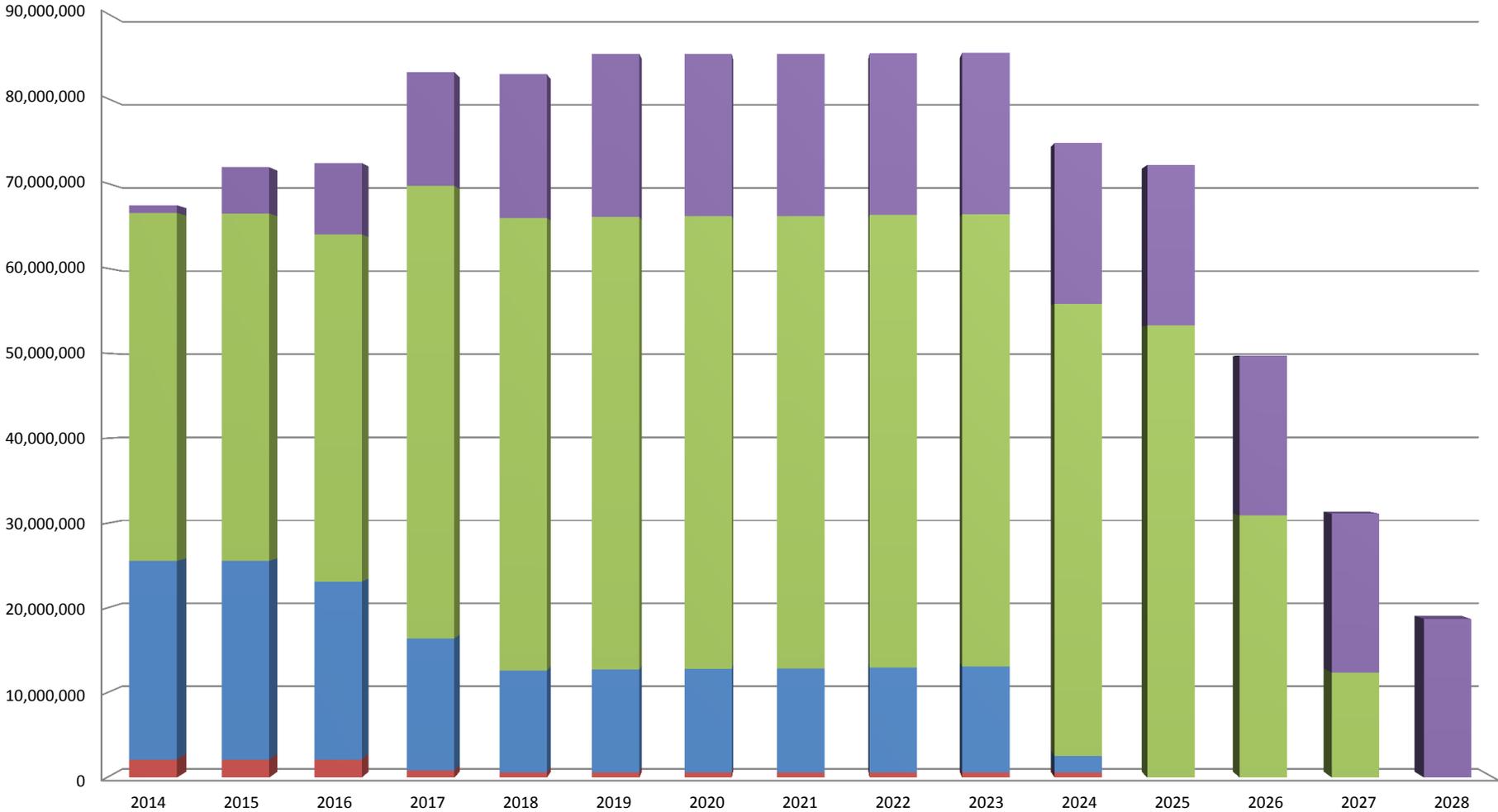
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# Appendix E



# Appendix F

### Total Debt Service By Type of Debt



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>New Debt</b>	896,511	5,436,900	8,418,332	13,363,005	16,895,634	19,194,523	19,093,139	19,040,675	19,000,825	18,954,858	18,912,479	18,862,320	18,811,059	18,760,835	18,705,807
<b>Obligations</b>	40,955,025	40,873,925	40,821,625	53,273,125	53,271,350	53,276,225	53,268,600	53,272,250	53,272,500	53,271,000	53,278,000	53,274,000	30,929,000	12,374,250	0
<b>Bonds</b>	23,425,556	23,437,481	21,007,294	15,603,644	11,998,156	12,100,069	12,198,356	12,224,669	12,339,269	12,454,975	1,902,563	0	0	0	0
<b>WIFA</b>	2,134,086	2,134,086	2,134,086	815,166	644,614	644,614	644,614	644,614	644,614	644,614	644,614	0	0	0	0