

CITY COUNCIL AGENDA

CITY COUNCIL CHAMBERS . 11465 WEST CIVIC CENTER DRIVE . AVONDALE, AZ 85323

WORK SESSION
October 8, 2007
6:00 PM

CALL TO ORDER BY MAYOR ROGERS

1 ROLL CALL BY THE CITY CLERK

2 DISCUSSION OF SALES TAX REVENUE OPTIONS.

Staff will present information on sales tax revenue options. For information, discussion and direction only.

3 OPTIONS FOR THE EXTENSION OF THE ALTERNATIVE EXPENDITURE LIMITATION (HOME RULE).

Staff will provide Council with information on the State-imposed expenditure limitation and options for Alternative Expenditure Limitations. For information, discussion and direction only.

4 PROPOSED TRANSFER OF GOODYEAR TIRE & RUBBER HISTORIC FARM CEMETERY TO THE CITY OF AVONDALE FROM SUNCOR DEVELOPMENT COMPANY

Staff will advise Council of a request from Suncor Development for the transfer of ownership of the Historic Pioneer Cemetery. For information, discussion and direction only.

5 RATE ANALYSIS FOR THE WATER AND WASTEWATER ENTERPRISE FUNDS.

Staff will present information on the rate analysis update for the water and wastewater enterprise funds. For information, discussion and direction.

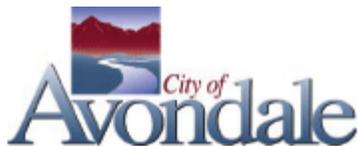
6 ADJOURNMENT

Respectfully submitted,

A handwritten signature in cursive script that reads "Linda M. Farris".

Linda Farris, CMC
City Clerk

Any individual with a qualified disability may request a reasonable accommodation by contacting the City Clerk at 623-333-1200 at least 48 hours prior to the council meeting.



CITY COUNCIL REPORT

SUBJECT:

Discussion of Sales Tax Revenue Options.

MEETING DATE:

October 8, 2007

TO: Mayor and Council

FROM: Kevin Artz, Finance and Budget Director (623)333-2011

THROUGH: Charlie McClendon, City Manager

PURPOSE:

Staff will present information on sales tax revenue options. This item is for discussion and direction only.

BACKGROUND:

On March 20, 2006, staff presented an analysis of sales tax options available to the City (see Attachment A for the March Council report). An analysis of City's restaurant and bar tax, bed tax, contracting tax, and the removal of the exemption for retail purchases in excess of \$5,000 was discussed.

On August 14, 2006, staff presented unfunded projects over the next 20 years, and two additional revenue options of increasing the property tax and increasing utility rates to support additional revenue bonds (see Attachment B for the August Council report). Council directed staff to prepare a shorter term needs assessment.

On October 9, 2006, staff presented unfunded projects over a 5 year period, and further discussed the Restaurant and bar tax and the contracting tax. Council directed staff to move forward with the bond election and discuss the Restaurant and bar tax and the construction tax after the bond election.

DISCUSSION:Revenue options

All of the revenue options discussed here requires the approval by a majority of the qualified electors in the city, through a sales tax election. The sales tax options that have received the most discussion by the Council at previous meetings are an increase in the restaurant and bar tax and an increase in the construction sales tax.

Restaurant and bar tax

A 1% restaurant and bar tax rate increase would generate an estimated \$985,000 in the first year and \$1.1M by the fifth year, or \$5.2M over the five year horizon. The restaurant and bar tax can be increased by 2% (with approval of the voters) without any restriction on the use of funds. Any increase in excess of 2% is considered a discriminatory tax, and the proceeds would be required to be used for tourism, once the City's population reaches 100,000.

Contracting Tax

A 1% contracting tax increase would generate an estimated \$1.45M in the first year and \$1.6M by the fifth year, or \$7.4M over the five year horizon. Currently, there are no restrictions on a construction tax. However, the home builders association made a strong push for legislation the last couple of years that would have severely restricted the use of funds from a discriminatory construction sales tax. Staff anticipates that this topic will be discussed again this year. Proposed legislation included language that required proceeds from a discriminatory construction tax be offset against a Municipality's development fees. If a bill with this language

is passed, there would be no benefit to the City in having a discriminatory construction sales tax as the development fees would have to be reduced by the amount of the construction sales tax received.

Removal of exemption for retail purchases in excess of \$5,000

The City has a two-tier tax system. A retail purchase less than \$5,000 is taxed at 2.5%. If the single item exceeds \$5,000 the item is taxed at 1.5%. The additional tax revenue would be dedicated to water, sewer and street projects and to Public Safety as originally approved by the voters in the initiatives. Removing the exemption would generate an estimated \$5.2M annually (based on estimated gross sales of \$520M in calendar year 2007).

The additional funding from removing the cap, would allow the City to add up to 16 new positions (plus equipment) in the Police Department and 8 new positions (plus equipment) in the Fire Department.

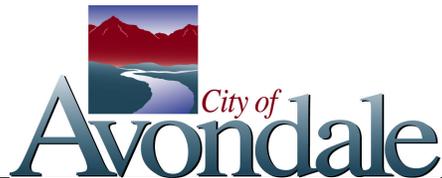
RECOMENDATION:

This report is provided for information and Council direction.

ATTACHMENTS:

Click to download

- [📄 Attachment A - March 20, 2006 report](#)
- [📄 Attachment B - August 14, 2006 report](#)



Attachment A

FINANCE & BUDGET DEPARTMENT

SUBJECT:
Analysis of sales tax revenue options

MEETING DATE:
March 20, 2006

CITY COUNCIL REPORT

To: Mayor and Council

From: Kevin Artz, Finance and Budget Director, 478-3201

Through: Charles McClendon, City Manager

Purpose:

Staff will present information regarding sales tax revenue options available to the City.

Background:

On November 5, 2005, the City Council established the Council goals for the upcoming budget year (FY 06/07). One of the goals established by Council is provide quality of life options and opportunities in the community. During the discussion and formulation of this goal and other goals related to transportation, Council directed staff to prepare an analysis of options for tax revenues, including an increase in the contracting tax and the restaurant and bar tax.

The City Charter, Article VI, Finance and Taxation, provides for the ability to establish a transaction privilege tax (sales tax), with the approval by a majority of the qualified electors voting in the election. Therefore, all of the options presented in the discussion section below would require the approval by a majority of the qualified electors.

Recently, the voters of the City have approved two general sales tax increases. In 2001, the voters approved a .5% sales tax increase (from 1.5% to 2.0%) dedicated to fund water, sewer and street projects.

The tax increase is applicable to all tax classification (i.e., retail, contracting, restaurants, bars, hotels, rental property, etc). The one exemption is for retail purchases of a single item in excess of \$5,000, the .5% tax does not apply.

In 2003, the voters approved an additional .5% sales tax increase (from 2.0% to 2.5%) dedicated to fund public safety needs. Again, the tax increase is applicable to all classifications and included an exemption for single retail purchases in excess of \$5,000 (i.e., retail purchases over \$5,000 are subject to a city tax of 1.5%).

Discussion:

Staff has analyzed the City's current sales tax structure and the structure of several valley cities. Staff will analyze the following potential options: an additional restaurant and bar tax, an additional bed tax (transient lodging), an increase in the contracting tax, and removal of the exemption for retail purchases in excess of \$5,000.

Restaurant and Bar tax

Currently, the City does not have an additional restaurant and bar tax. Five valley communities have an additional tax that ranges from .3% to 2.0%. The following is a breakdown of 12 valley cities tax rate, additional restaurant and bar tax rate, combined tax rate and average rates for the 12 cities:

	<u>Tax Rate</u>	<u>Resturant and bar tax</u>	<u>Combined Tax and Rest/Bar</u>
Gilbert	1.5	0.0	1.5
Mesa	1.5	0.0	1.5
Scottsdale	1.7	0.0	1.7
Chandler	1.5	0.3	1.8
Phoenix	1.8	0.0	1.8
Tempe	1.8	0.0	1.8
Tolleson	2.0	0.0	2.0
Avondale	2.5	0.0	2.5
Peoria	1.5	1.0	2.5
Glendale	1.8	1.0	2.8
Surprise	2.2	1.0	3.2
Goodyear	2.0	2.0	4.0
Average	1.81		2.25

As the above table illustrates, the City's unrestricted tax rate and the combined restaurant and bar tax rate exceed the average of the 12 valley communities surveyed.

For calendar year 2005, taxable sales for the restaurant and bar classification totaled approximately \$87.5M. Therefore, a 1.0% increase in the tax rate for restaurants and bars would generate an additional \$875,000 in revenue annually.

State Law (A.R.S. 9-500.06 see attachment A) establishes rules for a discriminatory tax on the hospitality industry (restaurants, bars, hotels, etc.) for City's with a population over 100,000 according to the most recent decennial census. Proceeds from a discriminatory tax are required to be used exclusively for the promotion of tourism. The law does not consider the first two percentage rate portion to be discriminatory. For the City of Avondale, an increase in the restaurant and bar tax of up to 2% would be allowable, with no restriction on the use of the proceeds. Any increase greater than 2% would be unrestricted until the City's population reaches a population of 100,000 in a decennial census (possibly by 2010 and definitely by 2020), after that, the proceeds would be required to be used exclusively for the promotion of tourism.

Bed tax

Currently, the City imposes an additional 2% bed tax on the transient lodging classification. All cities surveyed have an additional bed tax, ranging from 1% to 3.5%. The following is a breakdown of 12 valley cities tax rate, additional bed tax, combined tax rate and average rates for the 12 cities:

	<u>Tax Rate</u>	<u>Bed Tax</u>	<u>Combined tax and bed</u>
Surprise	2.2	1.0	3.2
Tolleson	2	2.0	4.0
Chandler	1.5	2.9	4.4
Avondale	2.5	2.0	4.5
Gilbert	1.5	3.0	4.5
Goodyear	2	2.5	4.5
Mesa	1.5	3.0	4.5
Scottsdale	1.65	3.0	4.7
Glendale	1.8	3.0	4.8
Phoenix	1.8	3.0	4.8
Tempe	1.8	3.0	4.8
Peoria	1.5	3.5	5.0
Average	1.81		4.47

As the above table illustrates, the City's combined bed tax rate approximates the average of the 12 valley communities surveyed.

Currently, the City does not have any hotels, therefore there aren't any historical sales upon which to estimate the additional revenue generated from a tax rate increase. If the hotels that are being built generate \$15M in taxable sales, a 1.0% increase in the bed tax would generate \$150,000 annually.

Again, State Law establishes rules for a discriminatory tax on the hospitality industry. Since the City already has a 2% bed tax, the proceeds from an increase in the bed tax would be unrestricted until the City's population reaches 100,000 in a decennial census. After the population threshold is reached the tax would be required for the promotion of tourism. Therefore, the tax proceeds would be unrestricted for either 4 or 14 years, depending on the 2010 census results.

Contracting tax

Currently, the City does not have an additional tax on the contracting classification. Of the Cities surveyed, two cities (Goodyear and Surprise) have an additional tax of 1.5%.

For calendar year 2005, taxable sales for the contracting classification totaled approximately \$353M. A 1.0% increase in the contracting rate would generate an additional \$3.5M in revenue annually.

There is a proposed bill that would establish rules for a discriminatory contracting tax (house bill 2381). As it is currently written, the bill would restrict the use of the proceeds from a discriminatory tax to the construction of new capital facilities comprising necessary public services for new development and to pay the operation and maintenance expenses of the new capital facilities. Staff is tracking this bill

closely, and it is very possible that it will affect the City's ability to self-control a discriminatory contracting tax.

Because contracting revenue is heavily dependant on new home and commercial construction, tax revenue from the contracting activity is subject to significant fluctuations between years. In addition, as the City approaches build out over the next 10 to 20 years, contracting revenue will significantly decrease. The City of Avondale has experienced increases and decreases of over \$1.0M between past fiscal years. As a result, the City allocates a significant portion of the contracting revenue to fund one-time projects (i.e., transfers to street, park and library projects) in an effort to reduce dependence on a potentially unstable revenue source. Any increase in contracting tax would require a significant portion of the proceeds to be allocated to one-time funding needs.

Removal of exemption for retail purchase in excess of \$5,000

As discussed earlier, the City has a two-tier tax system. A retail purchase less than \$5,000 is taxed at 2.5%. If the single item exceeds \$5,000 the item is taxed at 1.5%. Removal of the exemption would result in additional tax revenue of approximately \$4.1M annually (based on gross sales of \$414M in calendar year 2005).

The additional tax revenue would be dedicated to water, sewer and street projects and to Public Safety as originally approved by the voters in the initiatives.

Summary

The following table summarizes the different options, revenue impacts with a 1% rate increase (based on CY 2005 and staff estimates), restriction on the use of the proceeds, and if the option is suitable for Quality of Life projects or Transportation projects:

<u>Option</u>	<u>Annual revenue with a 1% increase</u>	<u>Restrictions</u>	<u>Suitable for Quality of Life Projects</u>	<u>Suitable for Transportation Projects</u>
Restaurant and bar tax - first 2%	\$875,000	No restrictions.	Yes	Yes
Restaurant and bar tax - above 2%	\$875,000	No restriction until population of 100,000. Then used for promotion of tourism - probably after 2010.	Yes, until population of 100,000 (2010) then used for tourism	Yes, until population of 100,000 (2010) then used for tourism
Bed tax above current rate	\$150,000	No restriction until population of 100,000. Then used for promotion of tourism - probably after 2010.	Yes, until population of 100,000 (2010) then used for tourism	Yes, until population of 100,000 (2010) then used for tourism
Contracting tax	\$3,500,000	None currently, possible state law pending would restrict it to capital improvements.	Possibly, pending proposed State Law	Yes, with a portion allocated to one-time expenses
Remove two-tier tax rate	\$4,100,000	Half dedicated to water, sewer, streets projects and half to public safety.	No	Half of reveune would be eligible for transportation

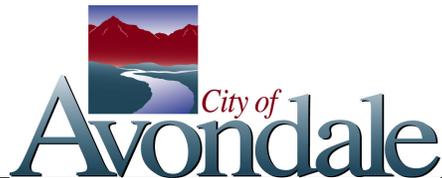
All of the options require the approval of the majority of the qualified electors voting in an election.

Recommendation:

This report is provided for information and Council direction.

Attachment - A A.R.S. 9-500.06

COPY



Attachment B

FINANCE & BUDGET DEPARTMENT

SUBJECT:
Discussion of unfunded CIP projects

MEETING DATE:
August 14, 2006

CITY COUNCIL REPORT

To: Mayor and Council
From: Kevin Artz, Finance and Budget Director, 478-3201
Through: Charles McClendon, City Manager

Purpose:

Staff will present information regarding unfunded capital improvement projects and potential revenue options.

Background:

On November 5, 2005, the City Council established the Council goals for the current budget year (FY 06/07). During the discussion and formulation of the Council goals, Council directed staff to prepare an analysis of options for tax revenues, including an increase in the contracting tax and the restaurant and bar tax.

On March 20, 2006, staff presented an analysis of sales tax options available to the City (see Attachment A for the March Council report). An analysis of City's restaurant and bar tax, bed tax, contracting tax, and the removal of the exemption for retail purchases in excess of \$5,000 was discussed.

On April 4, 2006, Council held a joint meeting with other west valley communities and adopted a resolution in support of the I-10 acceleration project. Then, on April 10, 2006, Council reviewed the draft FY 2007-2011 capital improvement plan. During the discussion of the CIP, Council requested that staff provide an analysis of unfunded capital needs.

Discussion:

Staff has analyzed the City's current Capital Improvement Plan, the Transportation Plan, The Water Master Plan and the Wastewater Master Plan, in an effort to identify the significant unfunded needs in the City over the next 20 years. The projects are summarized in the following categories: Streets, Water, Wastewater, General Government and Quality of Life.

Unfunded CIP projects total approximately \$991M, based on current estimates. The collection of Development Impact fees beyond the current CIP (i.e., FY 2012 to build out) will cover some of the costs. In addition, private development will be responsible for certain costs, and there will be

opportunities to cost share some of the projects or receive grants. However, this will still leave a funding deficit of approximately \$381M by 2026. The following table summarizes the deficit in funding for each of the categories over the next 20 years (see attachment – B for a detailed list of the capital projects):

<u>Project costs</u>	2007-2010	2011-2015	2016-2020	2021-2026	Total
Streets Surplus/(shortfall)	\$ (13,237,300)	\$ (15,757,000)	\$ (53,209,250)	\$ (82,517,200)	\$ (164,720,750)
General Gov. Surplus/(shortfall)	(22,000,000)	(36,520,000)	-	-	(58,520,000)
Quality of Life Surplus/(shortfall)	(31,813,450)	(1,143,500)	(1,207,625)	(2,351,906)	(36,516,481)
Water Surplus/(shortfall)	(3,003,900)	-	-	-	(3,003,900)
Sewer Surplus/(shortfall)	(7,808,600)	(62,336,500)	(54,752,375)	6,311,906	(118,585,569)
Surplus/(Shortfall)	\$ (77,863,250)	\$ (115,757,000)	\$ (109,169,250)	\$ (78,557,200)	\$ (381,346,700)

Revenue options

In addition to the sales tax options discussed in March 2006 (restaurant and bar tax, bed tax, contracting tax, and removal of the exemption for retail purchases in excess of \$5,000) there are two additional options for funding capital projects: general obligation bonds and revenue bonds.

General Obligation Bonds

General Obligation bonds (GO bonds) are one option for raising revenues for major capital projects. These bonds are secured and typically repaid from secondary property taxes. There are three main constraints that must be evaluated when considering issuing Go debt, the legal debt limit, voter authorization and the tax rate.

First, the amount of indebtedness the City can incur is limited by State Constitution (See attachment C-City of Avondale legal debt margin). The Constitution limits indebtedness for GO Bonds to 6% or 20% of the assessed valuation of taxable property in the City. The 6% limit applies to indebtedness for general municipal purposes, and the 20% limit applies to water, wastewater, parks and open space acquisition and development. Based on staff's analysis, the City's legal debt margin is not a major constraint at this time (based on the current tax rate and the fact that most of the current needs fall in the 20% category).

Second, in addition to capacity under the City's legal debt margin, voter approval is required for the issuance of GO bonds. Currently, the City has \$24,320,000 of remaining voter authorization (approved in 1995 and 1998). However, a portion of the remaining authorization has been programmed to be issued in the FY2007-2011 CIP. The following table summarizes the remaining voter authorization for GO and revenue bonds by purpose:

<u>Purpose</u>	<u>Remaining authorization as of 6/30/06</u>	<u>Unprogrammed authorization as of 6/30/06</u>
Water	\$ 6,070,000	\$ 70,000
Wastewater	12,500,000	6,500,000
Streets	3,250,000	3,250,000
Library	2,500,000	-
	<u>\$ 24,320,000</u>	<u>\$ 9,820,000</u>

As the table above demonstrates, the City has a limited amount of available voter authorization. If GO or revenue bonds are going to be utilized in the future, the City will need to ask for additional voter authorization.

Finally, the source for repayment of GO bonds is typically the secondary property tax, and the impact of the tax rate on the property owners must be considered. The City's secondary property tax rate is currently \$.7326 per \$100 of assessed valuation (the combined primary and secondary rate is \$1.1692).

Staff has analyzed the City's historical growth rate, existing outstanding debt service and planned GO debt issuance in the current CIP. Based on the analysis, staff has determined that the following GO bonds can be issued, without an increase in the secondary property tax rate:

Purpose	Year	Amount	In FY 2007-11 CIP
Library	FY 06/07	\$ 2,500,000	Yes
Streets	FY 08/09	\$ 14,000,000	Yes
Police	FY 08/09	\$ 7,500,000	Yes
Parks	FY 08/09	\$ 10,000,000	Yes
Undetermined	FY 10/11	\$ 34,500,000	No
Undetermined	FY 16/17	\$ 40,000,000	No
Undetermined	FY 21/22	\$ 25,000,000	No

A \$.10 tax rate increase would generate an additional \$386,790 of revenue annually, based on the current assessed valuation. Annual revenue of \$386,790 would pay the debt service on approximately \$4M of debt over 20 years. Therefore, with the city's current assessed valuation, for every \$.10 increase in the secondary property tax rate, the city would be able to issue an additional \$4M of debt (assuming there is voter authorization and capacity under the legal debt limitation).

In order for GO bonds to be a feasible option, the main constraint that must be overcome is the lack of voter authorization. With the approval of the voters, the City would be able to issue approximately \$106M of GO debt in the next 10 years without an increase to the property tax rate. Staff has planned for a bond election in 2007 to request additional authorization from the voters.

Revenue Bonds

Revenue bonds are another option available to the City, and would be appropriate for streets, water and wastewater capital projects. These bonds are secured and repaid from Highway User Revenue Fees (HURF), water and wastewater rates. Constraints for revenue bonds include voter authorization and the impact on HURF revenues, and water and wastewater rates.

As discussed previously, the city has limited un-programmed voter authorization to issue revenue bonds (currently \$3,250,000 for streets, \$70,000 for water and \$6,500,000 for wastewater). Therefore, in order for revenue bonds to be a feasible option, additional voter authorization would have to be obtained.

The source of repayment for revenue bonds is user fees. In the HURF fund, there are not sufficient revenues to issue any additional debt. HURF revenues are part of the state shared revenue distribution, and the next significant increase will occur in FY 2011/12 when the next census is performed. Existing debt in the HURF fund continues until FY 2017/18.

In the utility funds, a rate study was performed in 2004 and it was determined that the City was not recovering adequate revenues to cover the operating costs of the water and wastewater funds. The City is in the second year of a five year plan to increase revenues in the water and wastewater funds in an effort to ensure the water and wastewater utilities are self-sufficient. The planned rate increases do not include any component to pay for additional debt service, that haven't been programmed in the current CIP. Therefore, if additional revenue bonds are issued prior to the retirement of existing revenue bonds (which occurs in FY 2014/15), further rate increase would be required. For example, the issuance of \$10M of new revenue bonds would require a 25% increase in rates.

In order for revenue bonds to be a viable option, additional voter authorization would have to be obtained. In addition, significant adjustments to the rate structure would be required to ensure that there are adequate revenues to pay the new debt service. New debt could be issued when the existing debt is retired, however, that does not occur until FY 2014/15 for wastewater and 2017/18 for HURF.

Summary

The following table summarizes the options presented in March and the discussion of General Obligation and Revenue bonds:

<u>Options</u>	<u>Annual revenue with a 1% increase</u>	<u>Restrictions</u>
Restaurant and bar tax - first 2%	875,000	No restrictions
Restaurant and bar tax - above 2%	875,000	No restriction until population of 100,000. Then used for promotion of tourism - probably after 2010
Bed tax above current rate	150,000	No restriction until population of 100,000. Then used for promotion of tourism - probably after 2010
Contracting tax	3,500,000	None currently, there have been discussions regarding a possible state law which would restrict it to capital improvements for new development.
Remove two-tier tax rate	4,100,000	Half dedicated to water, sewer, streets projects and half to public safety.

<u>Options</u>	<u>Amount of bonding capacity</u>	<u>Restrictions/Constraints</u>
Issue GO bonds	\$110M	Need additional voter authorization.
Issue Revenue Bonds	\$18M	Need additional voter authorization. \$18M could be issued in FY 2014/15 without rate increase. Significant increases in rates if debt is issued sooner.

The following table summarizes the projected deficits and layers in the existing revenue sources that are available to the City. Existing revenue sources include \$70M from the .5% dedicated sales tax (issued as growth occurs and when the existing debt is retired), \$17.5M of general fund transfers, \$99.5M of additional proceeds from GO bonds (utilizing the existing tax rate structure), and \$28M of revenue bond proceeds (issued when existing debt is retired). Assuming the unfunded CIP list is complete and identifies all needed CIP projects, and based on existing revenue sources in place today, the City would still have a funding deficit of more than \$166M, over the next 20 years. A significant portion of the unfunded needs (\$77M or 46%) occurs in during FY 07-10.

<u>Project costs</u>	2007-2010	2011-2015	2016-2020	2021-2026	Total
Streets Surplus/(shortfall)	\$ (13,237,300)	\$ (15,757,000)	\$ (53,209,250)	\$ (82,517,200)	\$ (164,720,750)
General Gov. Surplus/(shortfall)	(22,000,000)	(36,520,000)	-	-	(58,520,000)
Quality of Life Surplus/(shortfall)	(31,813,450)	(1,143,500)	(1,207,625)	(2,351,906)	(36,516,481)
Water Surplus/(shortfall)	(3,003,900)	-	-	-	(3,003,900)
Sewer Surplus/(shortfall)	(7,808,600)	(62,336,500)	(54,752,375)	6,311,906	(118,585,569)
Surplus/(Shortfall)	\$ (77,863,250)	\$ (115,757,000)	\$ (109,169,250)	\$ (78,557,200)	\$ (381,346,700)
<u>Existing Revenue sources</u>					
.5% sales tax Bonds	-	15,000,000	20,000,000	35,000,000	70,000,000
General Fund transfers	-	10,000,000	5,000,000	2,500,000	17,500,000
subtotal		25,000,000	25,000,000	37,500,000	87,500,000
<u>Bonds issued under existing rate structure</u>					
GO Bonds @ existing rate	-	34,500,000	40,000,000	25,000,000	99,500,000
Sewer Revenue Bonds	-	18,000,000	-	-	18,000,000
HURF revenue Bonds	-	-	10,000,000	-	10,000,000
subtotal	-	52,500,000	50,000,000	25,000,000	127,500,000
Surplus/(Shortfall) with existing sources	\$ (77,863,250)	\$ (38,257,000)	\$ (34,169,250)	\$ (16,057,200)	\$ (166,346,700)

The potential revenue sources are listed in the following table with the estimated revenue over the next twenty years.

<u>Potential new sources</u>	2007-2010	2011-2015	2016-2020	2021-2026	Total
Resturant and Bar tax	\$ 2,625,000	\$ 5,250,000	\$ 6,300,000	\$ 6,930,000	\$ 21,105,000
Additional Bed tax	450,000	1,750,000	2,100,000	2,500,000	6,800,000
New Construction tax	10,500,000	17,500,000	9,500,000	2,500,000	40,000,000
Remove two tier tax rate	6,150,000	11,000,000	11,500,000	11,750,000	40,400,000
Sewer bonds w/ 25% increase	10,000,000	-	-	10,000,000	20,000,000
GO bonds @ 50% rate increase	14,000,000	15,000,000	20,000,000	12,500,000	61,500,000
subtotal	<u>\$ 43,725,000</u>	<u>\$ 50,500,000</u>	<u>\$ 49,400,000</u>	<u>\$ 46,180,000</u>	<u>\$ 189,805,000</u>

As the table demonstrates, none of the individual revenue generating options provide sufficient revenues to eliminate the funding deficit. In fact, most of the options would have to be implemented to eliminate the funding deficit.

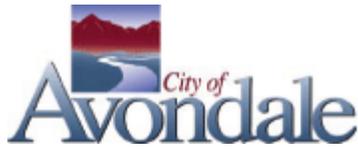
Staff met with six of the auto dealerships to discuss the removal of the two-tier sales tax rate. All of the dealerships staff discussed this option with were emphatic that the current rate gives them a competitive advantage and an increase would be detrimental to their sales and their businesses.

All of the options presented require approval of the majority of the qualified voters in the City (either an election to amend the sales tax code or as a bond election).

Recommendation:

This report is provided for information and Council direction.

- Attachment - A March 20, 2006 Council report
- Attachment – B 20 year CIP
- Attachment – C Computation of Legal Debt Margin



CITY COUNCIL REPORT

SUBJECT:

Options for the extension of the Alternative Expenditure Limitation (Home rule).

MEETING DATE:

October 8, 2007

TO: Mayor and Council

FROM: Kevin Artz, Finance and Budget Director (623)333-2011

THROUGH: Charlie McClendon, City Manager

PURPOSE:

Staff will provide Council with information on the State-imposed expenditure limitation and options for Alternative Expenditure Limitations.

BACKGROUND:

The Arizona State Constitution and Arizona Revised Statutes impose an expenditure limitation on every City and Town in the State. The state-imposed limitation uses expenditures of local revenues from Fiscal Year 1979-80 as a baseline. Each year, the Economic Estimates Commission (EEC) adjusts baseline expenditures based on a standard inflation rate and the population growth in the community to establish a new expenditure limitation. Certain revenues are specifically excluded from the state-imposed expenditure limitation. For example, revenues received from the issuance of bonds, revenues received from interest or dividends, revenue from Federal grants, and intergovernmental revenue already subject to another entity's expenditure limitation, are all exempt from the expenditure limit. If the state-imposed limitation does not allow for the expenditure of sufficient local funds (less the exemptions listed above), State law provides four options to potentially solve this problem.

- Alternative expenditure limitation (local home rule option)
- A permanent base adjustment
- A capital projects accumulation fund
- A one-time override

All of the options require voter approval. If none of the options are approved by the voters, the state-imposed limitation will apply.

Home Rule Option

The home rule option allows the City to adopt its own "alternative" expenditure limitation and sets the limit at its adopted budget. In other words, it allows the City to establish its own expenditure limitation without being subject to the state-imposed limitation. It also significantly reduces the City's reporting burden to the State. Home rule must be approved by the voters, and is good for a period of four years. Renewal of home rule must be re-approved by the voters every four years.

Permanent Base Adjustment Option

A permanent base adjustment modifies the expenditure limitation base from 1979-80. The permanent adjustment allows the City to increase the base expenditures from 1979-80 and calculates the impact of the population and inflation factor on that new base. This results in an increase of the current and future year's expenditure limitations. As the name indicates, the adjustment is permanent and requires the approval of the voters one time.

Capital Projects Accumulation Fund Option

A capital project accumulation fund allows the City to exclude funds accumulated to pay for specific capital projects. This option is useful for Cities where the State-imposed limitation is adequate for operating costs, but not for capital outlay costs. A capital projects accumulation fund and the specific projects must be approved by the voters. If new projects are identified by the City, this would require voter approval for the new projects.

One-time Override Option

Any City may exceed its State-imposed limitation by a one-time override. This override is effective for one year, and does not affect the expenditure limitation base. The override must be approved by the voters and is good for one year.

DISCUSSION:

In September of 2005, the Avondale voters adopted an alternative expenditure limitation – Home Rule option (first approved in 1981 with six subsequent extensions). The Home Rule option expires at the end of Fiscal Year 2009-10.

The preliminary state-imposed expenditure limitation for the City of Avondale for Fiscal Year 2007-08 is \$40,725,585. Staff estimates that the City would have an additional \$75,000,000 of exclusions from the state imposed limit for a total expenditure limitation of approximately \$115,700,000. The adopted budget for FY 07-08 is approximately \$268,000,000 which would put the City approximately \$152,000,000 over the state-imposed limitation if the Home Rule option were not in effect for Fiscal Year 2007-08. There are several factors that would cause the City of Avondale to exceed the state-imposed expenditure limit.

First, the state-imposed expenditure limitation, which is calculated with population and inflation factors, is based on projections for one year's needs. In a high growth community, this doesn't allow for a City to plan infrastructure and city services to stay ahead of the growth curve (i.e., building a wastewater treatment facility with excess capacity, instead of one year's capacity needs).

Second, the City of Avondale has changed significantly since 1979-80, when the baseline was established. Current citizens are demanding increased services and amenities that may not have been required in 1980. The increased expectations of the residents are not adequately factored into the population and inflation calculation performed by the State. As a result, the state-imposed limitation is based on expectations from 25 years ago, instead of today's residents.

Finally, the State imposed limitation does not account for additional revenue sources received since 1979-80. The City of Avondale has established development impact fees and two, half-percent sales tax increases since 1979-80. Both of these local revenue sources (total of approximately \$65M in FY 07-08) are subject to the State-imposed limitation. Without an alternate expenditure limitation, the City would be unable to spend sales tax dollars from a voter approved initiative, which was approved to increase funding for public safety and basic infrastructure.

As the state-imposed expenditure limitation for the City of Avondale is not sufficient to allow the City to expend its local revenues and provide the basic services that the residents require, one of the alternative options must be selected and in place when the current home rule option expires in FY 2009-10.

With home rule, the voters need to approve an extension every four years. Home rule provides an opportunity for the voters to allow the increased spending, while providing for a level of accountability as the option requires the voters to ratify home rule every four years. The home rule option also significantly simplifies the reporting process. Under home rule, the Annual Expenditure Limitation report take approximately 1 hour of staff time to complete, and the audit costs are minimal. It does however increase the election cost every four years.

With the permanent base adjustment, once the option is approved by the voters, the base amount is permanently adjusted and does not require any further action by the voters. Reporting for the permanent base adjustment

requires extensive staff time (120-150 hours per year) and additional audit expenses (\$5,000 per year).

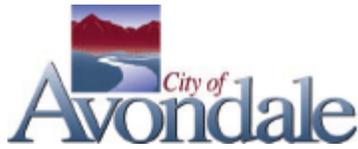
RECOMENDATION:

Staff is seeking Council direction on moving forward with a permanent base election, or maintaining the current process of seeking approval of home rule every four years.

ATTACHMENTS:

[Click to download](#)

No Attachments Available



CITY COUNCIL REPORT

SUBJECT:

Proposed Transfer of Goodyear Tire & Rubber Historic Farm Cemetery to the City of Avondale from SunCor Development Company

MEETING DATE:

October 8, 2007

TO: Mayor and Council

FROM: Rogene Hill, Assistant City Manager (623)333-1012

THROUGH: Charlie McClendon, City Manager

PURPOSE:

Suncor Development Company is asking that City Council consider their offer to transfer ownership of the Historic Pioneer Cemetery, which is located in Avondale, to the City. SunCor will also transfer the \$250,000 Trust Fund with the property.

BACKGROUND:

Pioneer Cemetery was established to serve as a burial ground for employees of Goodyear Farms and the Wigwam Resort in Litchfield Park. A large number of those buried in Pioneer Cemetery were victims of the Great Flu Epidemic of 1918.

When Goodyear Farms, a subsidiary of Goodyear Tire and Rubber, went out of business, Westinghouse purchased the 12,000 acre farm for development by SunCor Development. This purchase included the 4.5 acre cemetery, known as the Historic Pioneer Cemetery. Employees with five years of service at the Farm and their spouses were eligible for burial at this site. The General Letter outlines the rules for determining burial eligibility. (See attachment A)

SunCor Development Company has completed its planned development of the acreage surrounding the cemetery, and would now like to ensure the continuation of the maintenance and operation of the cemetery, when they leave the immediate area. The Cemetery is located just south of Indian School along Santa Fe Trail in Avondale.

Very few former employees of the Goodyear Farm remain, according to a recent outreach campaign initiated by SunCor. On average there are three or four burials per year. If the transfer is approved by Council, staff recommends entering into a contract with one of three local firms to open and close grave sites as needed.

Nothing in the original Cemetery operating rules prevents the City from charging a small grave opening and closing fee to defray these costs.

The site would be included in the Parks maintenance contract for annual tree trimming and the application of pre-emergence herbicides. Parks staff would provide routine maintenance of trash removal and sweeping the parking lot. Staff estimates this will cost approximately \$10,000 per year.

SunCor Development enclosed the cemetery with a perimeter wall and Iron Gate. Water is purchased from the City. The drip system, operated by a solar powered timer, delivers water to the mature trees that shade the property. SunCor has agreed to pave the parking area. There is a Trust Fund that SunCor restored to its original balance of \$250,000, from which they take an annual disbursement of the interest to pay for ongoing maintenance. Disbursements from the Trust Fund would be approximately \$6,000 per year.

DISCUSSION:

This Historic Cemetery is a cultural heritage treasure located in the City of Avondale. The Avondale Municipal

Arts Committee and the Litchfield Historic Society support the proposal. (See Attachment B)

The Texas Historical Commission published a report titled Preserving Historic Cemeteries, which states,

“Cemeteries are among the most valuable of historic resources. They are reminders of various settlement patterns . . . Cemeteries can reveal information about historic events”

In a Report Titled: Practices Report on Historic and Neglected Cemeteries, the author writes,

“Historic cemeteries can promote the healing of community wounds, economic development and rejuvenation in neighborhoods. The main avenues for preservation are the City could take possession of the cemeteries, a 501c3 could petition for control, or the County could provide for the cemeteries”

Of the three possible means of preserving this piece of Avondale’s cultural heritage, accepting SunCor’s offer to transfer the Cemetery and the Trust Fund to the City is the most viable option. This Goodyear Farms cemetery located in Avondale has been well preserved and would be eligible for Arizona Heritage Grant Funds and designation as a Historic Site. Grant funds together with other fundraising could increase the endowment so that the Trust Fund’s annual interest can eventually fully support ongoing maintenance of the property. This site is also under consideration by the Centennial Committee as a possible project that might receive State funds for capital upgrades such as constructing a visitor’s kiosk, creating tourist materials and improving the landscaping and adding benches and other amenities.

BUDGETARY IMPACT:

Taking over the cemetery may require an increase of up to \$10,000 annually to the Parks Maintenance Budget, the total maintenance budget would be partially offset by Trust Fund interest disbursements.

RECOMENDATION:

For discussion and direction.

ATTACHMENTS:

Click to download

- [📄 General Letter - Rules for Eligibility](#)
- [📄 Goodyear Farms Site Map](#)
- [📄 Letters of Support](#)
- [📄 Draft Agreement with SunCor Development](#)

EXHIBIT "C"

GOODYEAR FARMS GENERAL LETTER

Revised March, 1979

Subject: BURIAL IN LITCHFIELD PARK CEMETERY

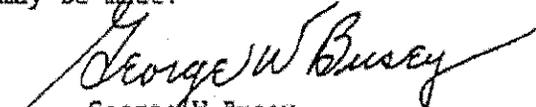
Supercedes conditions as established in letter of
February 6, 1979

Burial in this cemetery will be limited to deceased persons who qualify
under at least one of the following conditions:

1. At time of death the deceased person was an active employee of Goodyear Farms and had been an active employee for at least five (5) consecutive years prior to death.
2. The deceased person was retired and had been an active employee for at least five (5) consecutive years prior to retirement.
3. The person at time of death was the lawful spouse of an active employee who qualifies for burial under 1 or 2 above.
4. The deceased person was the widow or widower of a former employee who either is buried in the cemetery or would have been eligible for interment under 1 or 2 above.
5. The deceased person at time of death was an unmarried dependent child of a person who qualifies for interment under 1 or 2 above, or is an unmarried child of a person already buried in the cemetery, or is the unmarried dependent child of a widow or widower who qualifies to be buried in the cemetery.

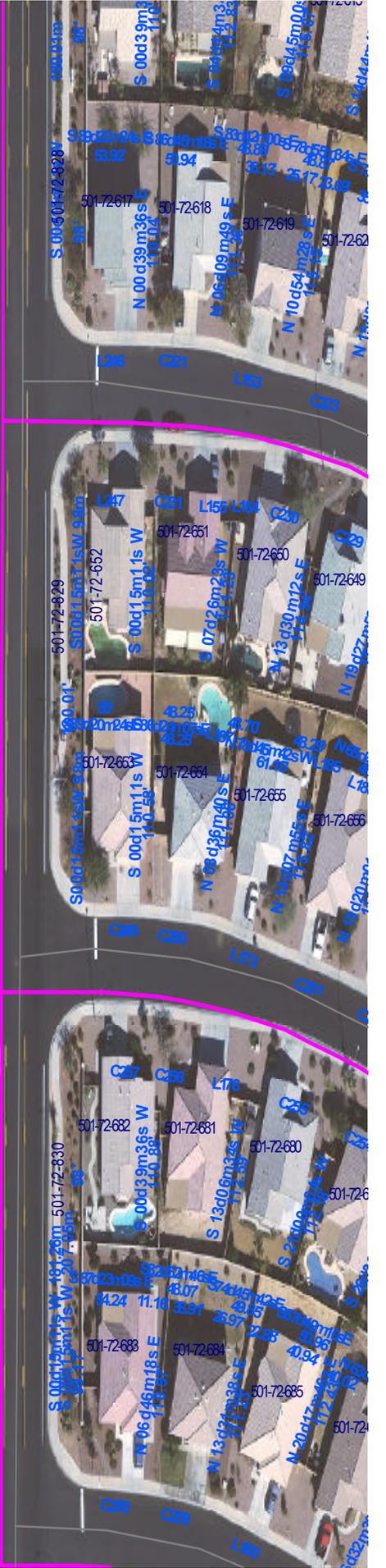
A child is defined for this purpose as a person under the age of 18 years.

The management of Goodyear Farms will designate a person to be in charge of the cemetery. The management will consider each request for burial. If in the opinion of management, an exception to the above conditions is warranted, such exception may be made.

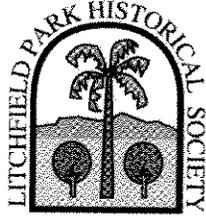

George W Busey
Vice President

G W Busey
mlm

Distribution: W A Bailey
A L Hardeman
J A Bauer
File



SANTA FE TRAIL



Post Office Box 1936
Litchfield Park, Arizona 85340

September 18, 2007

Ms. Rogene E. Hill
Assistant City Manager
City of Avondale
11465 W. Civic Center Drive
Avondale, AZ 85323

Dear Ms. Hill:

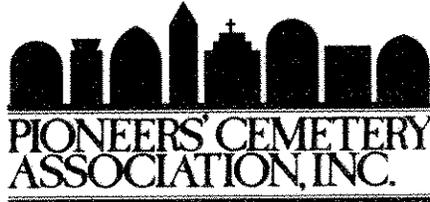
On behalf of the Board of Directors of the Litchfield Park Historical Society I hereby declare our support to the City of Avondale's being granted authority for the future oversight, care, maintenance and preservation of the Goodyear Farms Cemetery. In addition, we recommend that efforts be made by the City of Avondale to have the cemetery registered as an official historic site.

The Goodyear Farms Cemetery is important to this local area not only because of the history it represents, but also because it continues to be utilized as an active burial site for the descendants of the early families already buried there. The cemetery was initially established in 1918 as a result of the large number of local deaths from the Spanish Flu epidemic, an international plague that is said to have taken the lives of one in ten people in Arizona alone. This early founding date of nearly 90 years ago, coupled with the fact that it remains an active cemetery, authenticates its historic significance and clearly supports the importance of protecting and preserving the site.

The Litchfield Park Historical Society Board of Directors applaud the City of Avondale's very responsible actions in its determination to preserve one of the important historical sites of our region; and we offer our continued support to your efforts.

Sincerely,

Rosemary Lang-Fiebig
President



P.O. Box 63342 • Phoenix, Arizona 85082-3342 • (602)-253-2734

pionc@csundz.yahoo.com • phone (602) 534-1207

September 27, 2007

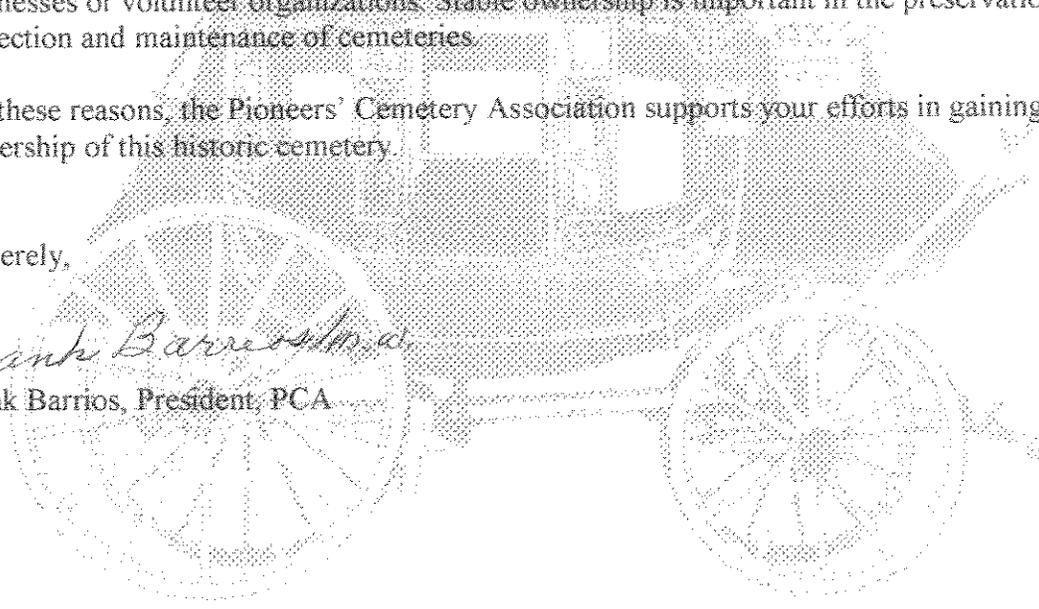
Rogene Hill, Asst. City Manager
11465 W Civic Center Dr.
Avondale, AZ 85323

Dear Ms. Hill,

The Pioneers' Cemetery Association appreciates your contacting us about the transfer of ownership of the historic Goodyear Farms/ Paul Litchfield/ Litchfield Park Cemetery. The mission of the PCA is to "research and preserve the history and physical remains of Arizona pioneers as exemplified in the early, historic-period cemeteries of the state." It is our belief that city ownership of a cemetery is more stable than that of private citizens, businesses or volunteer organizations. Stable ownership is important in the preservation, protection and maintenance of cemeteries.

For these reasons, the Pioneers' Cemetery Association supports your efforts in gaining ownership of this historic cemetery.

Sincerely,



Frank Barrios, President

Frank Barrios, President, PCA



October 1, 2007

Mayor and Council
City of Avondale

Dear Mayor and Council,

One of the ongoing priorities of the Avondale Municipal Arts Committee is celebrating the cultural heritage of the City. Avondale has very few structural relics of its rich history. The Goodyear Tire and Rubber Historic Cemetery is one tangible piece of Avondale's farming roots. This historic cemetery is located in the City of Avondale and is a reminder of the farming history of Avondale.

Members of the Avondale Municipal Art Committee understand that the current owner and caretaker of the property, SunCor Development, is seeking to divest themselves of this property having finished their development work in the immediate area. The members of the Municipal Arts Committee believe that if the City accepts responsibility of this piece of Avondale's history, it would be better preserved and made available for tourists and residents to learn from and enjoy.

Taking over responsibility of this historic cemetery is not without possible issues. However, the majority of the Committee believes that taking this bold step is in keeping with the stated goal of valuing our cultural heritage. It is an opportunity to do more than pay lip service to this goal.

On September 20th the seven of eight Avondale Municipal Arts Committee members voted with one abstention to recommend that the Council consider favorably SunCor Development's request to accept the transfer of ownership of the Historic Farm Cemetery, which is located in Avondale.

Very Truly Yours,

A handwritten signature in black ink, appearing to read "D. Sours".

David Sours, Chair
Avondale Municipal Arts Committee

AGREEMENT TO TRANSFER

This AGREEMENT TO TRANSFER (this "Agreement") is made and entered into this ____ day of August, 2006, by and between SunCor Development Company, an Arizona corporation ("SunCor") and the City of Avondale, an Arizona municipal corporation (the "City").

RECITALS

A. SunCor is the owner of the real property located in the City of Avondale, Maricopa County, Arizona, the legal description of which is attached hereto as **Exhibit "A"**, upon which SunCor operates and maintains a cemetery serving as a resting place for farm workers previously employed at Goodyear Farms and persons otherwise qualified for burial in the cemetery. The real property and cemetery located thereon are collectively referred to herein as the "Property."

B. SunCor established a trust account to provide adequate funds to operate and maintain the Property.

C. SunCor desires to ensure the continuation of the operation of the cemetery for the workers of Goodyear Farms and the City has expressed an interest in continuing the operation of the cemetery.

D. SunCor further desires to convey the Property and the trust account to the City and the City agrees to accept the conveyance of the Property and the trust account for the continuation of the operation of the cemetery.

NOW, THEREFORE, for the purposes set forth above, SunCor and the City agree as follows:

1. Transfer of Property. Seller hereby conveys to the City and the City hereby accepts the transfer of the Property and the trust account for the continuation of the operation of the cemetery.

2. Conveyance; Title. Upon execution of this Agreement, the Property shall be conveyed by quitclaim deed, subject to all matters of record.

3. Consideration. There shall be no consideration paid to SunCor by the City for the Property.

4. Restrictions. The City agrees to continue the operation of the cemetery and to comply with and adhere to the terms and restrictions set forth in that certain Goodyear Farms General Letter dated March 1979, a copy of which is attached hereto as **Exhibit "B"** and incorporated herein by this reference, which letter outlines the criteria pursuant to which an individual is entitled to burial in the Goodyear Farms cemetery.

5. Condition of Premises. The Property is being conveyed AS-IS with no representations or warranties by SunCor. The City is entering into this Agreement voluntarily and is not relying upon any representations or warranties of SunCor.

6. Miscellaneous.

6.1 This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, personal representatives, successors-in-interest and permitted assigns.

6.2 It is understood and agreed that all understandings, agreements, warranties or representations, either oral or in writing, including, without limitation, any prior agreements between the parties hereto are superseded by this Agreement. This Agreement may not be modified in any manner except by a subsequent instrument in writing signed by Seller and Purchaser.

6.3 This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original; but all of which when taken together shall constitute but one and the same instrument.

6.4 This Agreement shall be construed and enforced in accordance with and governed by the laws of the State of Arizona.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date set forth above.

SUNCOR:

SunCor Development Company,
an Arizona corporation

By: _____
Name: _____
Title: _____

CITY:

City of Avondale,
an Arizona municipal corporation

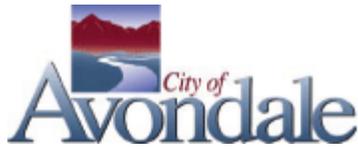
By: _____
Name: _____
Title: _____

Exhibit "A"

Legal Description of the Property

Exhibit "B"

Goodyear Farms General Letter



CITY COUNCIL REPORT

SUBJECT:
Rate Analysis for the Water and Wastewater Enterprise
Funds.

MEETING DATE:
October 8, 2007

TO: Mayor and Council
FROM: Kevin Artz, Finance & Budget Director (623)333-2011
THROUGH: Charlie McClendon, City Manager

PURPOSE:

Staff will provide information to Council regarding the rate analysis for the water and wastewater enterprise funds.

BACKGROUND:

One of the Council goals for Fiscal Year 2007-08 is to ensure the long-term financial stability of the City. The City's enterprise funds rely on user charges, and do not receive the benefit of tax revenues to fund operations. As a result, in order to ensure the financial stability of these funds, it is necessary to perform rate studies each year to determine if revenues are adequate to cover expenses.

In the fall of 2004, Red Oak Consulting developed a rate model and conducted an analysis which presented to Council the need for rate adjustments to ensure the self-sufficiency of our water and wastewater enterprises. Staff has updated the rate model in November of 2005 and September of 2006 to include any financial changes in the water and wastewater operations. The update results have been substantially the same as the requirements established by the Red Oak study. The original and subsequent analyses were presented to the Citizens Water and Wastewater Advisory Committee to which they continue to recommend equalized revenue increases over the five-year period for an average of 3% per year.

Council approved the 3% revenue increases in February 2005, January 2006 and December of 2006. This is the fourth year of the multi-year rate plan recommended by Red Oak.

DISCUSSION:

The update results still indicate the need to increase revenues. Staff has identified the need for increases in future years based on current cost estimates. The need for the increase in rates is primarily a result of regulatory requirements, the effects of the prolonged drought in the southwest and the costs of treatment related to the expansion of the wastewater treatment plant.

Inflationary costs are having a significant impact on the water and wastewater budgets, as items such as fuel, chemicals, vehicle maintenance, electricity, and system components. EPA mandated standards for arsenic and continuing treatment for nitrates are projected to add an additional \$500,000 per year over the next five years. The effects of the drought in the southwest are beginning to impact the cost of water that the City purchases. Excess water from the Central Arizona Project (CAP) is 25% more expensive and pumping groundwater is 300% more expensive than our current water costs. Finally, the expansion of the wastewater treatment plant is expected to add an additional five (5) positions and \$300,000 in chemical costs. While some of these costs will be absorbed by new customers, a portion can be attributed to a change in treatment processes which benefit all users of the system.

The City continues to be proactive in its effort to reduce costs in the Water Resources department and has implemented a preventative maintenance program. Service lines and fire hydrants have been repaired and

replaced in an effort to reduce water loss. In addition, well pumps and motors have been replaced with more cost efficient models which should help control the increased costs of electricity.

Water and Wastewater - Revenue sufficiency analysis The rate update results indicate that water revenues need to be increased by 3.4% and sewer revenues need to be increased by 2.4% resulting in a combined increase of 3.0% for fiscal year 2007-08. The attached table (Exhibit A) presents the cash flow analysis for the water and wastewater funds for the next six years.

Based on information currently available, the rate model indicates the need for the planned increases but also shows the need for additional revenue increases in years six and eight. However, given the continually changing economy and treatment standards, it is possible that future updates of the rate model may result in varying revenue requirements in future years.

Water - Rate Structure

The following table presents the current water rate structure and the proposed rate structure:

Water Rates	Current	Proposed
Customer Charge Per Bill - all users	\$ 2.28	\$ 2.60
<u>Meter Size-Base Fee all users</u>		
3/4" Meter	\$ 7.52	\$ 7.52
1" Meter	15.98	15.98
1 1/2" Meter	30.08	30.08
2" Meter	48.13	48.13
3" Meter	90.24	90.24
4" Meter	150.39	150.39
6" Meter	300.79	300.79
Hydrant Meter	300.79	300.79
<u>Residential Usage Charge per 1,000 gallons</u>		
0-4,000 gal	\$ 0.90	\$ 0.94
5,000-8,000 gal	1.39	1.44
9,000-12,000gal	2.08	2.16
13,000 + gal	3.17	3.28
<u>Non-Residential Usage Charge per 1,000 gallons</u>		
0-4,000 gal	\$ 1.39	\$ 1.44
5,000-8,000 gal	1.39	1.44
9,000-12,000gal	2.08	2.16
13,000 + gal	3.17	3.28
Hydrant Usage – all gal	2.08	2.16

The rate structure incorporates a conservation rate element, in that, the higher water consumption users pay a higher usage or volume charge. For example, a residential user with consumption of 2,000 gallons per month would pay \$0.94 per thousand gallons of water for the volume charge. On the other hand, with consumption of 20,000 gallons of water the residential user is paying \$3.28 per thousand gallons for consumption in excess of 13,000 gallons. As a result of the conservation rate structure, the rate increase does not impact all customers the same.

Sewer Rate Structure

The following table shows the proposed sewer rates compared to the current rates.

	<u>Current Rates</u>	<u>Proposed Rates</u>	
Customer Charge all users	\$ 6.65	\$ 6.25	
<u>Customer Class</u>	<u>Volume charge</u>	<u>Volume charge</u>	<u>Return</u>
	<u>per 1,000 gal</u>	<u>per 1,000 gal</u>	<u>Factor</u>
Residential			

	\$	2.93	\$	3.08	80%
Multi-family		2.93		3.08	100%
Mobile Home Park		2.93		3.08	80%
Auto Steam Cleaning		7.37		9.00	70%
Bakery					
Wholesale		5.91		7.04	80%
Hospital & Convalescent		2.74		2.82	80%
Markets with Garbage					
Disposal		5.56		6.59	80%
Repair Shop and Service					
Station		2.79		2.89	80%
Restaurant		5.91		7.04	80%
Schools &					
Colleges		2.36		2.31	80%
Bars W/O					
Dining		2.73		2.81	80%
Laundromat					
		2.44		2.42	70%
Commercial					
Laundry		3.60		3.96	70%
Car					
Wash		2.08		1.95	70%
Professional					
Office		2.33		2.27	80%
Department Store &					
Retail		2.50		2.50	80%
Hotel w/Dining		4.30		4.91	80%
Hotel w/o Dining		2.97		3.12	80%
Mortuaries		5.56		6.59	80%

*Residential charges are calculated using the average water usage for the months of December, January and February, adjusted by the listed return factor.

The impact of the rate increase ranges from over 0.4% for the lower consumption water users to over 3.7% for a residential user with consumption of 24,000 gallons per month.

Timeline and process

In order to increase water and wastewater user fees, Arizona Revised Statute 9-511.01 requires that any municipality engaging in a domestic water or wastewater business shall comply with the following:

1. Prepare a written report or supply data supporting the increased rate or rate component, fee or service charge. A copy of the report shall be made available to the public by filing a copy in the office of the clerk of the municipality governing board at least thirty days prior to the public hearing described in paragraph 2 of this subsection (attachment A).
 2. Adopt a notice of intention by motion at a regular council meeting to increase water or wastewater rates or rate components, fee or service charge and set a date for a public hearing on the proposed increase which shall be held not less than thirty days after adoption of the notice of intention. A copy of the notice of intention showing the date, time and place of such hearing shall be published one time in a newspaper of general circulation within the boundaries of the municipality not less than twenty days prior to the public hearing date.
- B. After holding the public hearing, the governing body may adopt, by ordinance or resolution, the proposed rate or rate component, fee or service charge increase or any lesser increase.

The notice of intention to increase rates is scheduled to be presented to Council on October 15, 2007, and the public hearing on the proposed rate increase is scheduled to be held on December 3, 2007. The written report will be made available at the City Clerk's office upon adoption of the notice of intention.

Public Participation

The Water and Wastewater Advisory Committee has reviewed the draft water and wastewater rate update at their September meeting. The Committee unanimously recommended that the draft report be presented to Council for adoption.

In addition, staff held a town hall meeting on September 27, 2007 to solicit input from the community. The town hall meeting was attended by 2 residents and staff provided estimates for their monthly bills based on proposed rates. Finally, the public hearing on December 3, 2007 will give the community another opportunity to provide feedback on the rate proposals.

RECOMENDATION:

This report is for information only, and does not require any action.

ATTACHMENTS:

Click to download

 [Exhibit A](#)

 [Water and Sewer Rate Analysis Report](#)

Revenue Sufficiency Analysis
Pro-Forma and Cash Flow Analysis - By Fund

<u>Water Operating Fund</u>	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13
Beginning Unrestricted Balances	18,896,493	17,917,368	16,793,519	15,720,440	15,234,396	13,543,953
Water Rate Revenue	10,262,212	10,823,350	11,684,023	12,819,710	13,999,123	15,434,033
Plus: Growth	2%	4%	4%	5%	5%	3%
Water Rate Revenue After Growth	10,467,456	11,256,284	12,151,383	13,460,695	14,699,079	15,897,054
Pct Change in Water Rates	3.40%	3.80%	5.50%	4.00%	5.00%	4.00%
Pct of Year Rate Increase Effective	50%	50%	50%	50%	50%	50%
Water Rate Revenue After Growth and Rate Increase	10,645,403	11,470,153	12,485,546	13,729,909	15,066,556	16,214,995
Other Revenue	738,058	738,058	738,058	738,058	738,058	738,058
Interest Income	228,212	212,256	197,587	187,843	175,872	149,656
Total Revenue	11,611,672	12,420,467	13,421,192	14,655,809	15,980,486	17,102,709
O&M	(10,878,015)	(12,198,136)	(13,105,292)	(14,179,666)	(15,061,856)	(16,084,397)
Debt Service	(181,862)	(181,540)	(181,960)	(183,052)	(478,080)	(492,423)
Capital Outlay	(1,530,920)	(1,164,640)	(1,132,019)	(704,134)	(605,993)	(641,103)
Cash Funded Capital	-	-	(75,000)	(75,000)	(1,525,000)	(2,650,000)
Net Cash Flow	(979,125)	(1,123,850)	(1,073,079)	(486,043)	(1,690,443)	(2,765,214)
Ending Unrestricted Balances	17,917,368	16,793,519	15,720,440	15,234,396	13,543,953	10,778,739
<u>Sewer Operating Fund</u>	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13
Beginning Unrestricted Balances	11,740,590	12,702,295	10,984,179	9,884,499	9,190,635	8,165,821
Sewer Rate Revenue	6,963,083	7,272,801	7,699,860	8,007,854	8,576,412	9,005,232
Plus: Growth	2%	4%	4%	5%	5%	3%
Sewer Rate Revenue After Growth	7,102,345	7,563,713	8,007,854	8,408,247	9,005,232	9,275,389
Pct Change in Sewer Rates	2.40%	1.80%	0.00%	2.00%	0.00%	1.00%
Pct of Year Rate Increase Effective	50%	50%	50%	50%	50%	50%
Sewer Rate Revenue After Growth and Rate Increase	7,187,573	7,631,786	8,007,854	8,492,329	9,005,232	9,321,766
Other Revenue	270,900	270,900	270,900	270,900	270,900	270,900
Interest Income	152,768	148,040	130,429	119,220	108,478	101,412
Total Revenue	7,611,241	8,050,727	8,409,183	8,882,449	9,384,610	9,694,079
O&M	(3,931,022)	(4,871,143)	(5,455,553)	(6,141,366)	(6,646,807)	(6,872,755)
Debt Service	(2,409,084)	(2,409,905)	(2,410,324)	(2,416,552)	(2,482,432)	(2,677,796)
Capital Outlay	(309,430)	(538,612)	(292,987)	(418,395)	(580,186)	(249,225)

Cash Funded Capital	-	(1,949,184)	(1,350,000)	(600,000)	(700,000)	-
Net Cash Flow	961,705	(1,718,116)	(1,099,680)	(693,864)	(1,024,815)	(105,697)
Ending Unrestricted Balances	12,702,295	10,984,179	9,884,499	9,190,635	8,165,821	8,060,123

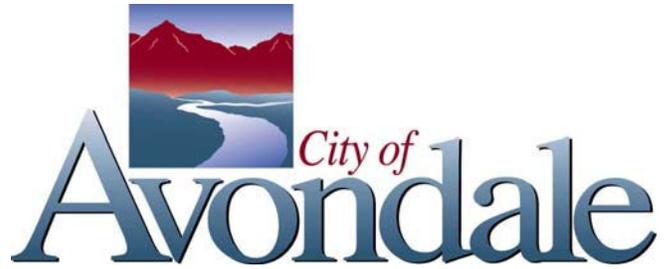
Summary Results of Combined Water and Sewer Fun

Debt Service Coverage Calculation

	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13
Rate Revenue	17,832,976	19,101,940	20,493,401	22,222,238	24,071,788	25,536,761
Other Revenue	1,008,958	1,008,958	1,008,958	1,008,958	1,008,958	1,008,958
Interest Income	380,980	360,296	328,016	307,062	284,350	251,068
Total Revenue	19,222,913	20,471,193	21,830,375	23,538,258	25,365,096	26,796,787
O&M	(14,809,037)	(17,069,279)	(18,560,845)	(20,321,032)	(21,708,662)	(22,957,152)
Net Income	4,413,876	3,401,914	3,269,530	3,217,226	3,656,433	3,839,635
Debt Service - Existing	2,590,946	2,591,445	2,592,283	2,599,605	2,960,512	3,170,218
Debt Service Coverage	1.70	1.31	1.26	1.24	1.24	1.21

Summary of Increase in Rate Revenue (excluding Growth related increases)

Total Full Year Rate Revenue Increase (excluding Growth)	17,741,324	18,638,348	20,026,504	21,500,509	23,275,491	25,146,679
Total Rate Revenue Before Rate Increase	17,225,295	18,096,151	19,383,882	20,827,564	22,575,535	24,439,265
Annual Pct Rate Revenue Increase	3.00%	3.00%	3.32%	3.23%	3.10%	2.89%



Water and Wastewater Rate Update
Fiscal Year 2007-2008

September 2007

Draft

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I. Introduction/Background

In September 2004, the City retained Red Oak Consulting, a division of Malcolm Pirnie, Inc., to conduct a water and wastewater rate study. The study concluded that in order to provide the same level of service, maintain required reserves and implement new treatment regulations, the City would need rate increases of approximately 3% per year in water and wastewater revenue over the five-year period following the date of the study.

This report documents the analysis conducted by staff in updating the rate model for the fourth year of the rate plan approved in concept by the City Council. City staff has compiled and evaluated the necessary data to update revenue requirements and develop updated rates.

II. Update Methodology

This update was conducted in the following three phases:

- Revenue Sufficiency Analysis Phase – determined the annual rate revenue required over a five-year period to completely fund the water and wastewater system financial requirements, including operating expenses, debt service and the capital improvements program.
- Cost of Service Analysis Phase – determined the cost to serve water and wastewater customers and allocated those costs to rate components and customer classes based on a review of line-item operating, debt service and capital costs.
- Rate Design Phase – designed a system of rates and charges that are projected to recover the annual rate revenue requirement determined in the revenue sufficiency analysis phase of the study.

a. Revenue Sufficiency Analysis

In order to update the model, staff evaluates utility expenses, current budgets, capital projects, debt requirements and the impact on operations from the capital program. These expenses are then updated in the model to keep it current. In evaluating the expenses it is clear that the rising costs of treating and distributing water and maintaining the system components have continued to accelerate at rates that are currently outpacing the normal consumer inflation rates. In addition, the new arsenic treatment regulations resulted in cost increases that are reflected in the rate plan.

Another driving factor is the need to fund the replacement of system components. As indicated in the City of Avondale's Municipal Code §24-117, the user charge rates for sewer should be revised as needed to pay for the total operations, maintenance and replacement costs for the system. Due to the aging system in some areas of the City, additional replacement funding is required to ensure the timely replacement of system components.

Baseline Expense Projections

The model was updated to include all new expenses and other revenue needs for a five year study period. Baseline expense projections for the forecast period assumed the following:

- ✓ All operating expenses and transfers out increase by 3% per year with the exception of the following:
 - Salary related expenses – increase by 4.5% per year in each year of the forecast period, based on current compensation plan trends.
 - Health, dental and life insurance expenses – increase by 6% per year in each year of the forecast period.

- ✓ Annual debt service expenses and debt service coverage requirements were taken from the current outstanding debt information and only projected to increase in years in which additional debt is projected.

Baseline Revenue Projections

Baseline revenue projections were assumed to exclude additional revenue from rate increases. The following assumptions were used to project annual changes in baseline revenue during the period:

- ✓ Baseline water and wastewater rate revenue, that is, rate revenue increases that are exclusive of programmed rate increases, was projected to increase at 5% annually to reflect projected annual growth in the water and wastewater customer base.
- ✓ FY 2007 actual miscellaneous revenue (turn on/off charges, late fees, etc.) was projected to remain constant during the forecast period.
- ✓ Projections from the Draft Development Fee Analysis report were used for water and wastewater development fee revenue.
- ✓ Interest income was calculated by the model based on projected fund balances during the period and assumed interest earnings rate of 1.25% per year.

Other Revenue Requirements

In addition to operating expenses, debt service and CIP related costs, the City must also maintain sufficient revenue to ensure that the annual debt service coverage ratio is met. Currently that ratio is 1.2 times the annual net income. Also, the City has set a management objective to maintain a working capital reserve in an amount equal to at least six months of operations and maintenance. Both of these requirements were programmed into the financial model.

Financial Projections associated with the Revenue Sufficiency Analysis Phase

The results of the revenue sufficiency analysis are presented in Table 1 as the pro-forma and cash flow analysis. As indicated on the last line of Table 1, rate increases are necessary over the next five years.

Table 1 - Revenue Sufficiency Analysis

Revenue Sufficiency Analysis
Pro-Forma and Cash Flow Analysis - By Fund

Water Operating Fund	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13
Beginning Unrestricted Balances	18,896,493	17,917,368	16,793,519	15,720,440	15,234,396	13,543,953
Water Rate Revenue	10,262,212	10,823,350	11,684,023	12,819,710	13,999,123	15,434,033
Plus: Growth	2%	4%	4%	5%	5%	3%
Water Rate Revenue After Growth	10,467,456	11,256,284	12,151,383	13,460,695	14,699,079	15,897,054
Pct Change in Water Rates	3.40%	3.80%	5.50%	4.00%	5.00%	4.00%
Pct of Year Rate Increase Effective	50%	50%	50%	50%	50%	50%
Water Rate Revenue After Growth and Rate Increase	10,645,403	11,470,153	12,485,546	13,729,909	15,066,556	16,214,995
Other Revenue	738,058	738,058	738,058	738,058	738,058	738,058
Interest Income	228,212	212,256	197,587	187,843	175,872	149,656
Total Revenue	11,611,672	12,420,467	13,421,192	14,655,809	15,980,486	17,102,709
O&M	(10,878,015)	(12,198,136)	(13,105,292)	(14,179,666)	(15,061,856)	(16,084,397)
Debt Service	(181,862)	(181,540)	(181,960)	(183,052)	(478,080)	(492,423)
Capital Outlay	(1,530,920)	(1,164,640)	(1,132,019)	(704,134)	(605,993)	(641,103)
Cash Funded Capital	-	-	(75,000)	(75,000)	(1,525,000)	(2,650,000)
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Total Revenue	7,611,241	8,050,727	8,409,183	8,882,449	9,384,610	9,694,079
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Debt Service - Existing	2,590,946	2,591,445	2,592,283	2,599,605	2,960,512	3,170,218
Debt Service Coverage	1.70	1.31	1.26	1.24	1.24	1.21
Summary of Increase in Rate Revenue (excluding Growth related increases)						
Total Full Year Rate Revenue Increase (excluding Growth)	17,741,324	18,638,348	20,026,504	21,500,509	23,275,491	25,146,679
Total Rate Revenue Before Rate Increase	17,225,295	18,096,151	19,383,882	20,827,564	22,575,535	24,439,265
Annual Pct Rate Revenue Increase	3.00%	3.00%	3.32%	3.23%	3.10%	2.89%

As indicated, the revenue increase requirement for the next two years remains at 3%. The model also assumes that we will transfer available funds to the construction funds to help cover the costs of maintenance/renewal projects. Those transfers are shown in the cash flow analysis (Table 1 - Revenue Sufficiency Analysis) as “Cash Funded Capital”. The City may need to review alternative financing mechanisms for funding additional project costs in future years which may result in new rate revenue requirements.

b. Cost of Service Analysis

Allocation of Costs to Water Cost Components

Customer related costs, such as billing, customer service costs and meter reading for water customers were allocated directly to the water customer charge rate component. Meter related costs, such as meter repair and replacement costs associated with maintaining the utility’s readiness to serve customers were allocated to the meter, or *readiness to serve*, charge. Other costs, such as transmission costs and treatment costs that are associated with flow-related activity, were allocated to the flow charge.

Allocation of Costs to Wastewater Cost Components

Customer related costs, such as billing and customer service costs, for wastewater customers were allocated directly to the wastewater customer charge rate component. Costs related to the collection system are allocated to a volume charge and treatment costs are allocated to a strength charge both of which are then combined into a single flow charge.

The cost allocation process resulted in the percentage of the rate revenue requirement identified in the revenue sufficiency analysis that is to be recovered through the following rate components for each Utility:

Water Rate Components		Wastewater Rate Components	
Customer charge	5%	Customer Charge	17%
Readiness to serve charge	22%	Flow Charge	83%
Flow Charge	73%		

c. Rate Design Analysis

The development of cost components sets the basis for actual rate development. The rate design considers different variables for each utility that determine the fairness and equity of the rate structure. For each utility, customer classes are identified in order to ensure the equitable allocation of costs.

The rates and charges developed during this rate update were developed using the same general rate-making objectives from the original study:

- ✓ Revenue stability
- ✓ Discouragement of wasteful water use
- ✓ Promotion of fairness and equity among rate-payers
- ✓ Understandability of rates

Assumptions used in the development of the rate structures presented include:

- ✓ Continuation of conservation rate structure for water customers
- ✓ Use of winter average water usage as the basis for sewer billings for residential customers

- ✓ Use of sewer return factor of 80% for all users except for multi-family for which a 100% return factor was used; and laundries and car washes, for which a 70% return factor was used in recognition that these types of users return less water to the wastewater system by the nature of their business.
- ✓ Allocation of costs of wastewater treatment based on estimated contribution to the wastewater system by user class.

Allocation of Costs to Water Customers

The rate revenue requirement for each rate component was apportioned by customer class in the following manner:

- ✓ Customer charge – The number of customers, by customer class, was compiled from the most recent fiscal year’s utility billing data to determine the number of customers and number of bills issued per year. The total costs were allocated on a per bill basis to develop the monthly charge.
- ✓ Readiness to serve charge – In order to properly apportion the rate revenue requirement for the readiness to serve charge among customer classes, equivalent units for each customer class were calculated in the following manner:
 - Equivalent Residential Units (ERUs) - The number of equivalent units for all customers, except multi-unit customers, was determined by calculating the equivalent residential units by meter size by class. Equivalent residential units for each class were calculated by multiplying the number of meters times the meter equivalency factor for each meter size. The meter equivalency factors used are established by the American Water Works Association (AWWA). The number of equivalent units was calculated by multiplying the number of units for multi-unit customers by the ratio of average monthly demand for multi-unit customers (4,700 gallons per month) as compared to single family residential customers (10,000 gallons per month), or 47%.

The rate revenue requirement for the readiness to serve charge was then apportioned based on the pro-rata portion of equivalent residential units for each class based on meter size.

- ✓ Flow rate – The water conservation component of the water rate design includes the development of four (4) blocks of water usage. The volume of water flow, by customer class, was compiled in order to determine the distribution of flow by class and rate block. The rate revenue requirement for the flow rate was then apportioned based on the pro-rata portion of customers for each class. One of the main objectives in the development of the current rate structure was to incorporate a conservation rate structure which alters the apportionment of the rate revenue requirement among customer classes based on their usage patterns.

The calculation of a user’s monthly water bill is represented by the following formula:

$$\text{Water Charge} = \text{CC} + (\text{R} \times \text{M} \times \text{U}) + [(\text{B1} \times \text{V1}) + (\text{B2} \times \text{V2}) + (\text{B3} \times \text{V3}) + (\text{B4} \times \text{V4})]$$

Where:

B1= Rate per 1,000 gallons in block one

B2= Rate per 1,000 gallons in block two

B3= Rate per 1,000 gallons in block three

B4= Rate per 1,000 gallons in block four

CC = Customer charge per bill

M=Meter equivalency factor

R=Readiness to serve charge for 0.75" Meter per unit

U=Number of units

V1= Water usage in thousands of gallons in block one

V2= Water usage in thousands of gallons in block two

V3= Water usage in thousands of gallons in block three

V4= Water usage in thousands of gallons in block four

The blocks for water usage are determined using the ¾" meter as the base. Except for hydrant meters and residential customers with a ¾" or 1" meter, all blocks are adjusted by the meter equivalency factor. Hydrant meters have relatively high capacity when compared to the standard meter and are therefore calculated separately.

Allocation of Costs to Wastewater Customers

The rate revenue requirement for each rate component for wastewater was apportioned by customer class in the following manner:

- ✓ Customer charge – The number of customers, by customer class, was compiled from the most recent fiscal year's utility billing data to determine the number of customers and number of bills issued per year. The total costs were allocated on a per bill basis to develop the monthly charge.
- ✓ Flow rate – The volume of wastewater flow, adjusted to reflect the assumed return factors by customer was compiled in order to determine the distribution of flow by class. The volume charge was developed using volume data from the last fiscal year's billing data. The costs of the collection system were reduced to a cost per 1,000 gallons based on total billed volumes. The second component is the allocation of treatment costs. Strength of wastewater is measured based on wastewater loadings of Biochemical Oxygen Demand (BOD) and Suspended Solids (SS). The costs of treatment were apportioned between the two categories based on the estimated pounds of BOD and SS removed from wastewater by user class. Except for the residential class, these estimated pounds were calculated based on typical (Industry Standards) user strength characteristics developed by the California State Water Resources Control Board in 1998. The residential strength characteristics are based on the local residential contributions estimated by the Water Resources Department staff. These loadings by customer class are presented in Table 2.

Table 2-Typical User Strengths

Standard Classifications	BOD (mg/l)	SS (mg/l)
Residential	250	225
Auto Steam Cleaning	1,150	1,250
Bakery, wholesale	1,000	600
Bars without dining facilities	200	200
Car Wash	20	150
Department and Retail Store	150	150
Hospital and Convalescent	250	100
Hotel with dining facilities	500	600
Hotel/Motel without dining	310	120
Industrial Laundry	670	680
Laundromat	150	110
Laundry, commercial	450	240
Market with garbage grinders	800	800
Mortuary	800	800
Professional Office	130	80
Repair Shop and Service Station	180	280
Restaurant	1,000	600
School and College	130	100
Septage	5,400	12,000
Soft Water Service	3	55

The calculation of a user's monthly wastewater bill is represented by the following formula:

$$\text{Wastewater Charge} = CC + Vs[(Bc \times 0.00834 \times Bm) + (Sc \times 0.00834 \times Sm)]$$

Where:

Bc = Cost of treatment per unit of Biochemical Oxygen Demand (BOD)

Bm = Concentration of BOD in milligrams per liter

CC = Customer charge per bill

Sc = Cost of treatment per unit of Suspended Solids (SS)

Sm = Concentration of SS in milligrams per liter

Vs = Volume of wastewater in thousands of gallons

Volumes of wastewater are determined based on 80% of the average winter quarter (December, January and February) water usage for single family residential customers. Multi-family customer wastewater volumes are based on 100% of billed water volume. Laundries and Car Washes wastewater volumes are based on 70% of billed water usage each month. All other customer class wastewater volumes are based on 80% of billed water usage.

III. Results

As shown in the revenue sufficiency analysis, the rate recommendations proposed by Red Oak Consulting in December of 2004 have changed slightly. The financial plan still provides a series of level annual rate increases which allows for gradual rate increases

over the four years to generate the additional rate revenue required. The requirements in the fifth and sixth years are subject to changes based on the financing decisions made for financing additional capital improvements. Table 3 presents the results of the current year update compared to the recommendations made in the original study.

Table 3-Comparison of Revenue Adjustment Recommendations

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
2005 Study Revenue Increase	1.3%	0.8%	3.5%	N/A	N/A	N/A
2008 Update Revenue Increase	3.0%	3.0%	3.32%	3.23%	3.10%	2.89%

According to the model's calculations, a rate increase is required for both water and sewer systems in the current year (3.4% in water and 2.4% in sewer). Increases are needed for both the water system and wastewater systems next year as well. The overall system revenue increase still averages about 3.1% over the next five to six year period. However, based on recent estimates for construction costs of treatment facilities and wells, additional increases may be required in order to adequately fund planned improvements. In addition to the adjustments to user rates, the City also reviews and adjusts development fees charged to new development to ensure the cost of growth is attributed to new customers.

a. Water Rates

The current rates for water consumption are compared to the proposed rates in

Table 4. The customer charge per bill will increase from \$2.28 to \$2.60, while the base fee based on meter size does not require an adjustment at this time. The rates per 1,000 gallons will be adjusted as shown in Table 4.

Table 4-Water Rate Comparison

Water Rates	Current	Proposed
Customer Charge Per Bill - all users	\$ 2.28	\$ 2.60
Meter Size-Base Fee all users		
3/4" Meter	\$ 7.52	\$ 7.52
1" Meter	15.98	15.98
1 1/2" Meter	30.08	30.08
2" Meter	48.13	48.13
3" Meter	90.24	90.24
4" Meter	150.39	150.39
6" Meter	300.79	300.79
Hydrant Meter	300.79	300.79
Residential Usage Charge per 1,000 gallons		
0-4,000 gal	\$ 0.90	\$ 0.94
5,000-8,000 gal	1.39	1.44
9,000-12,000gal	2.08	2.16
13,000 + gal	3.17	3.28
Non-Residential Usage Charge per 1,000 gallons		
0-4,000 gal	\$ 1.39	\$ 1.44
5,000-8,000 gal	1.39	1.44
9,000-12,000gal	2.08	2.16
13,000 + gal	3.17	3.28
Hydrant Usage – all gal	2.08	2.16

Multi-family rates are adjusted by the 47% unit equivalency factor and rate blocks are adjusted by the meter equivalency factor.

b. Sewer Rates

The current rates for wastewater services are compared to the proposed rates in Table 5. The costs for sewer treatment have been increasing which is reflected in the volume charge per 1,000 gallons in the table.

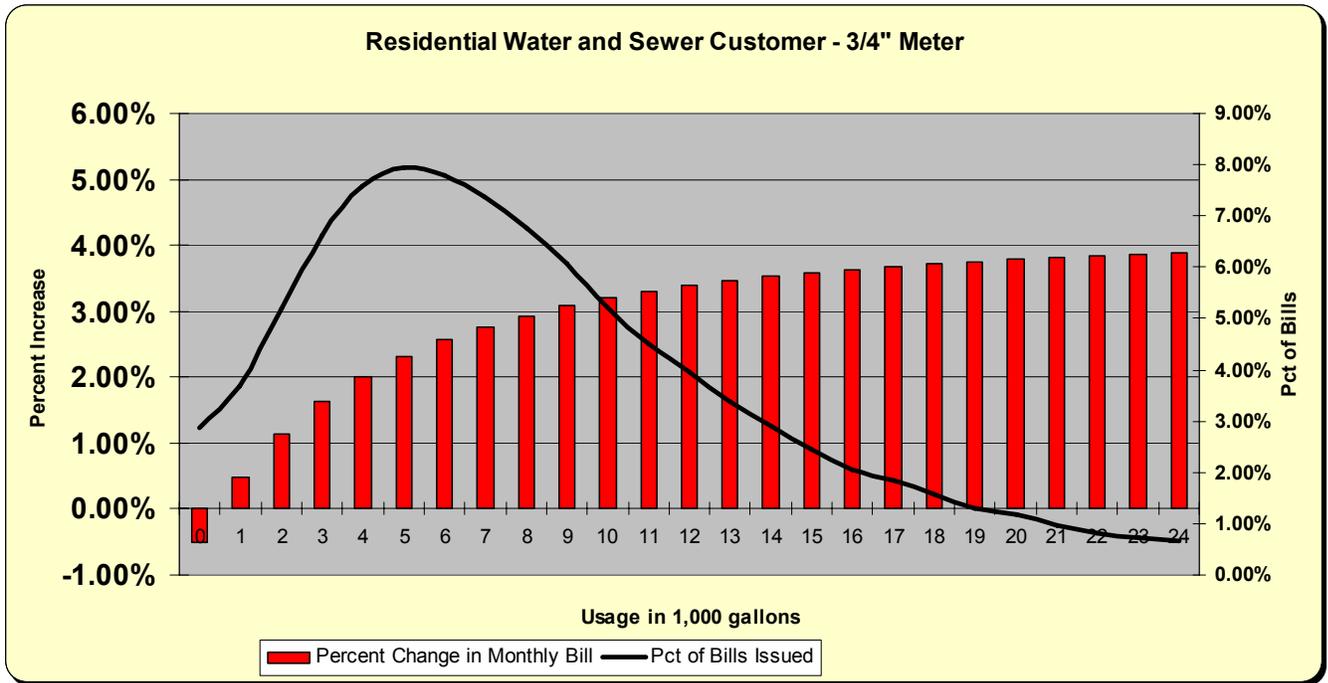
Table 5 - Sewer Rate Comparison

	<u>Current Rates</u>	<u>Proposed Rates</u>	
Customer Charge all users	\$ 6.65	\$ 6.25	
	<u>Volume charge per</u>	<u>Volume charge per</u>	<u>Return</u>
<u>Customer Class</u>	<u>1,000 gal</u>	<u>1,000 gal</u>	<u>Factor</u>
Residential	\$ 2.93	\$ 3.08	80%
Multi-family	2.93	3.08	100%
Mobile Home Park	2.93	3.08	80%
Auto Steam Cleaning	7.37	9.00	70%
Bakery Wholesale	5.91	7.04	80%
Hospital & Convalescent	2.74	2.82	80%
Markets with Garbage Disposal	5.56	6.59	80%
Repair Shop and Service Station	2.79	2.89	80%
Restaurant	5.91	7.04	80%
Schools & Colleges	2.36	2.31	80%
Bars W/O Dining	2.73	2.81	80%
Laundromat	2.44	2.42	70%
Commercial Laundry	3.60	3.96	70%
Car Wash	2.08	1.95	70%
Professional Office	2.33	2.27	80%
Department Store & Retail	2.50	2.50	80%
Hotel w/Dining	4.30	4.91	80%
Hotel w/o Dining	2.97	3.12	80%
Mortuaries	5.56	6.59	80%
*Residential charges are calculated using the average water usage for the months of December, January and February, adjusted by the listed return factor.			

c. Estimated Impact on Customer Bills

The customer impact of this plan is presented in Figure 1 for residential customers with a 3/4" meter. As shown, customers with no usage will see a slight decrease in the bill due to the reduction in the base fee for sewer customers.

Figure 1 - Residential Customer Impact



IV. Sample Bills

For comparison purposes, examples of average bills are presented on the following pages. The figures include a full month utility bill including all water, wastewater and sanitation services. The impact varies from 0.4% to 3.8% for residential customers with a 3/4" or 1" meter. The following bills do include a recommended sanitation rate adjustment along with the changes in water and sewer rates.

Figure 2-Average Residential Customer 3/4" Meter

Residential	Gallons Billed	Current	Proposed
Water	10		
Base Fee 3/4" Meter		\$ 9.80	\$ 10.12
Volume Charge		13.32	13.84
Sub-Total		23.12	23.96
Sewer (Winter Average)	8		
Base Fee		\$ 6.65	\$ 6.25
Volume Charge on 80%	6	17.58	18.48
Sub-Total		24.23	24.73
Sanitation		18.00	19.00
Taxes		2.12	2.20
Total		\$ 67.47	\$ 69.89
Total Bill Change			\$ 2.41 3.6%

Figure 3 - Residential Customer 1" Meter

Residential	Gallons Billed	Current	Proposed
Water	15		
Base Fee 1" Meter		\$ 18.26	\$ 18.58
Volume Charge		26.99	28.00
Sub-Total		45.25	46.58
Sewer (Winter Average)	10		
Base Fee		\$ 6.65	\$ 6.25
Volume Charge on 80%	8	23.44	24.64
Sub-Total		30.09	30.89
Sanitation		18.00	19.00
Taxes		4.16	4.29
Total		\$ 97.50	\$ 100.76
Total Bill Change			\$ 3.26 3.3%

Figure 4 - Higher User Residential Customer 3/4" Meter

Residential	Gallons Billed	Current	Proposed
<u>Water</u>	35		
Base Fee 3/4" Meter ▼		\$ 9.80	\$ 10.12
Volume Charge		90.39	93.60
Sub-Total		100.19	103.72
<u>Sewer (Winter Average)</u>	15		
Base Fee		\$ 6.65	\$ 6.25
Volume Charge on 80%	12	35.16	36.96
Sub-Total		41.81	43.21
<u>Sanitation</u>		18.00	19.00
<u>Taxes</u>		9.41	9.74
Total		\$ 169.41	\$ 175.67
Total Bill Change			\$ 6.26 3.7%

V. Update Recommendations

Based on the findings of the rate analysis, it is recommended that the City continue to implement 3% annual increases in water/wastewater revenue to ensure there is adequate revenue to cover the costs of operations and maintenance, maintain working capital reserves and maintain debt coverage ratios.

This report is presented for review and consideration to the Water/Wastewater Citizens' Advisory Committee.

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Appendix

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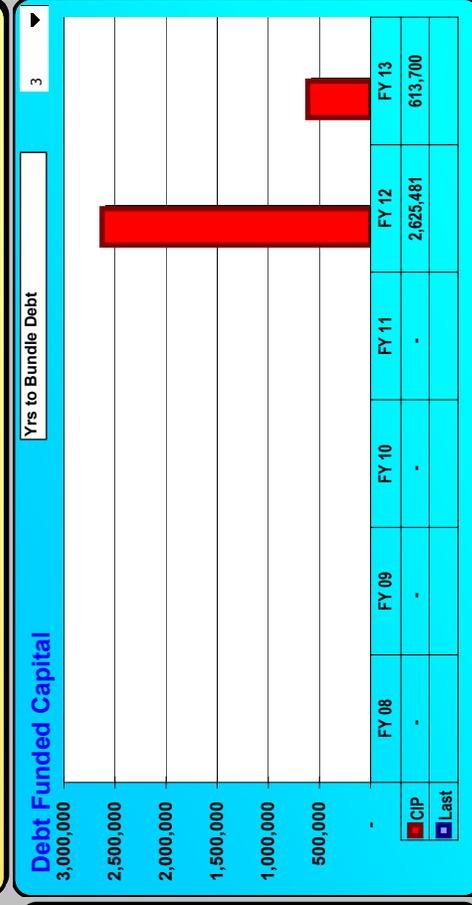
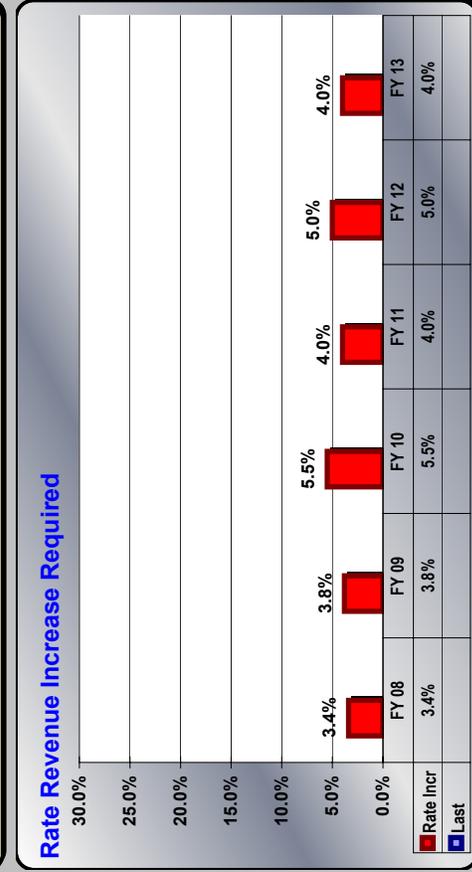
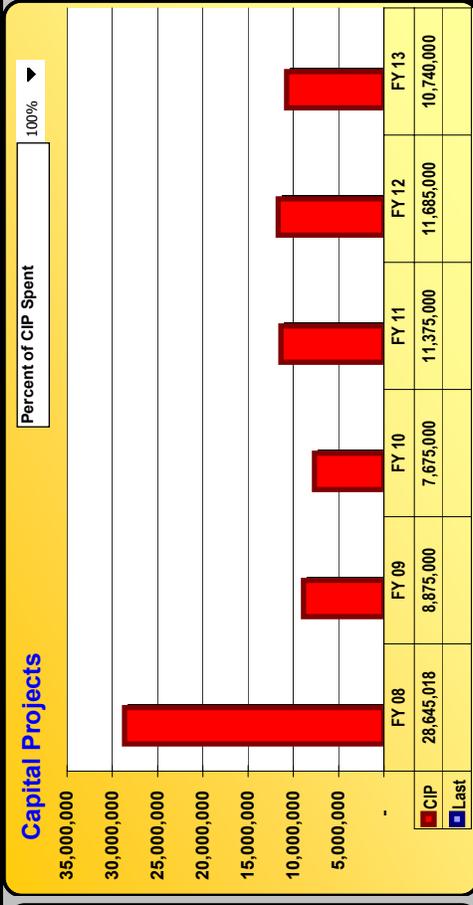
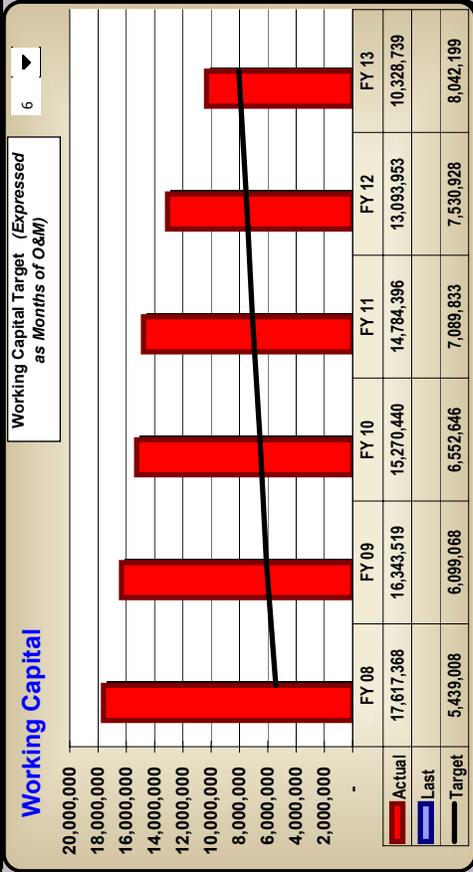
WATER

Figure 1a

City of Avondale, Arizona
Revenue Sufficiency Analysis - WATER FUND

Dashboard

Combined D/S Cov-Rcov	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13
1.70	1.31	1.26	1.24	1.24	1.24	1.21
NA	NA	NA	NA	NA	1.87	NA
Combined D/S Cov-Parity						



Excise Tax Bonds?						
RATE INCR: %	3.40%	3.80%	5.5%	4.0%	5.0%	4.0%
	Y	N	N	N	N	N

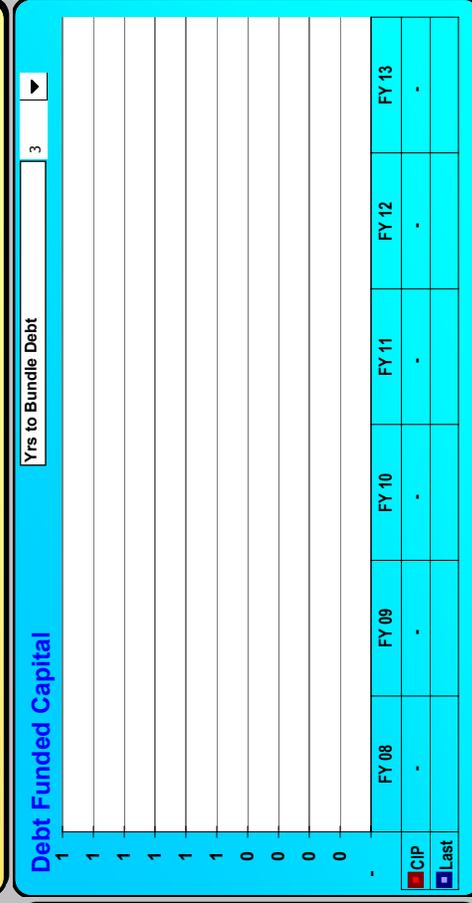
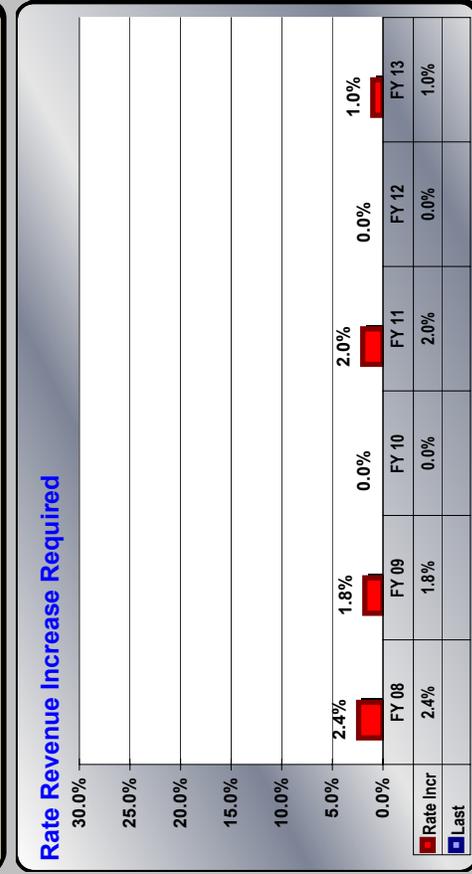
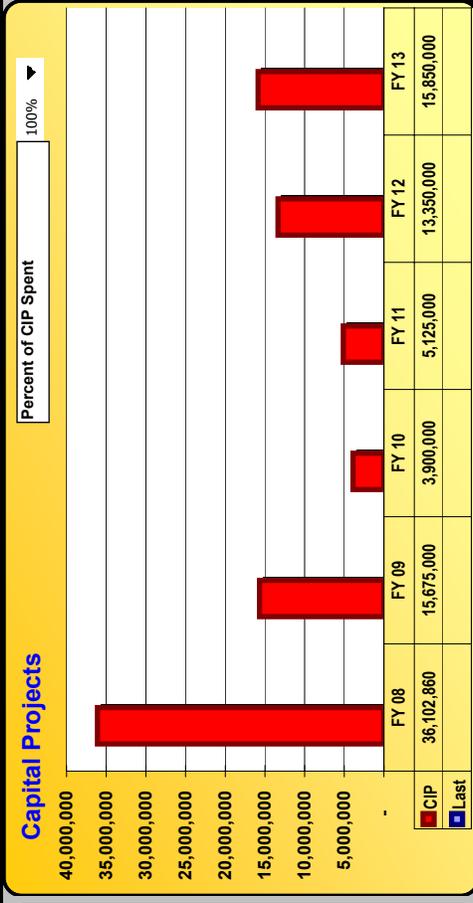
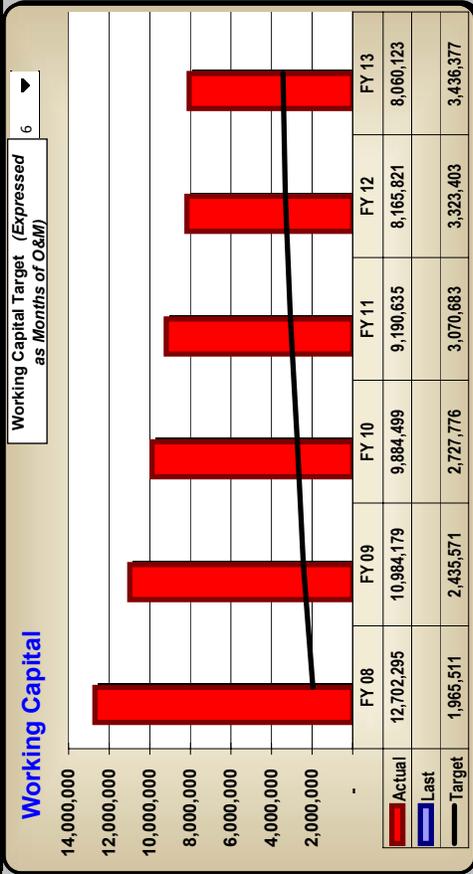
SEWER

Figure 1b

City of Avondale, Arizona
Revenue Sufficiency Analysis - SEWER FUND

Dashboard

	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13
Combined D/S Cov-Rcov	1.70	1.31	1.26	1.24	1.24	1.21
Combined D/S Cov-Parity	NA	NA	NA	NA	NA	NA



Excise Tax Bonds?	N	Y	N	N	N	N
RATE INCR: %	2.40%	1.80%	0.0%	2.0%	0.0%	1.0%

Figure 3
City of Avondale, Arizona
Revenue Sufficiency Analysis
5 Year Capital Improvements Program

Project Type	Water Development	Restrictd for	Eligible Project Funding Sources	% Related to Expansion of System Capacity	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	Total
DIST	Y	Y	50% WA1017Central Ave - Lower Buckeye to Western	50%	286,330	-	-	-	-	-	286,330
DIST	Y	Y	0% WA1057North Avondale Water Improvements	0%	346,350	150,000	150,000	150,000	150,000	150,000	1,086,350
DIST	Y	Y	0% WA1058South Avondale Water Improvements	0%	485,270	150,000	150,000	150,000	150,000	150,000	1,205,270
TRANK	Y	Y	0% WA1061Water System Security Implementation	0%	133,265	-	100,000	100,000	100,000	100,000	533,265
SOS	Y	Y	66% WA1065Lower Buckeye Water Line - 4th St to El Mirage	66%	-	500,000	500,000	-	-	-	1,250,000
SOS	Y	Y	100% WA1068Well Head Treatment	100%	250,000	-	-	-	-	-	250,000
SOS	Y	Y	100% WA1074Well #20 at El Mirage/Indian School	100%	77,350	1,000,000	-	-	-	-	1,077,350
SOS	Y	Y	100% WA1077Del Rio Reservoir & Booster	100%	4,393,163	-	-	-	-	-	4,393,163
DIST	Y	Y	100% WA1078Water Oversize Buy-Ins/ Dev. Reimbursement	100%	2,083,067	400,000	400,000	400,000	400,000	400,000	4,083,067
SOS	Y	Y	100% WA1081Central Arizona Project water purchase	100%	400,000	400,000	400,000	400,000	400,000	400,000	2,400,000
SOS	Y	Y	100% WA1084Exploratory Boring & Well Production Evaluation	100%	175,466	-	-	-	-	-	175,466
TRANK	Y	Y	100% WA1089Van Buren 16" Transmission Line	100%	355,265	-	-	-	-	-	355,265
SOS	Y	Y	100% WA1090AG Well South of I-10/East of Agua Fria	100%	700,000	1,200,000	-	-	-	-	1,900,000
DIST	Y	Y	50% WA1098Dysart Rd - Van Buren to Western Water Line Improv	50%	2,195,000	-	-	-	-	-	2,195,000
SOS	Y	Y	100% WA1099Additional Wells	100%	112,000	-	-	-	-	-	112,000
GEN	Y	Y	0% WA1100System Monitoring	0%	129,586	100,000	100,000	100,000	100,000	100,000	629,586
DIST	Y	Y	0% WA1114Emergency interconnection w/ Other Water Companies	0%	323,470	-	-	-	-	-	323,470
DIST	Y	Y	100% WA1120Miscellaneous Water Distribution Connectivity	100%	360,000	700,000	550,000	-	-	-	1,600,000
DIST	Y	Y	100% WA1131Plyman Well at Lower Buckeye	100%	-	-	300,000	1,100,000	-	-	1,400,000
DIST	Y	Y	100% WA1132Thomas Road - 103rd to 98th Water Line Improvement	100%	-	-	300,000	2,000,000	-	-	2,500,000
DIST	Y	Y	100% WA113399th Avenue Water Line - Thomas to McDowell	100%	-	-	500,000	-	-	-	500,000
TRANK	Y	Y	100% WA1134McDowell RSE Pump Station to RSE Water Line Impr	100%	55,540	-	-	-	-	-	55,540
TRANK	Y	Y	100% WA1135McDowell RSE Pump Station to RSE Water Line Impr	100%	97,300	-	-	-	-	-	97,300
GEN	Y	Y	0% WA1136Abandon and Demolish Well 2 Facilities	0%	-	-	-	-	-	-	-
DIST	Y	Y	100% WA1139Water Line on Avondale Blvd - Lower Buckeye to Gila River	100%	750,000	1,250,000	-	-	-	-	2,000,000
DIST	Y	Y	100% WA1140Indian Springs Rd. Gila River to El Mirage Rd	100%	-	-	-	-	-	-	-
SOS	Y	Y	100% WA1141SRP Paired Well at 119th and Whyman	100%	-	-	-	-	-	-	-
SOS	Y	Y	100% WA1142Lakin Well at 112th and Buckeye	100%	150,000	-	-	-	-	-	150,000
SOS	Y	Y	0% WA1143Well at Cashion	0%	762,574	-	-	-	-	-	762,574
DIST	Y	Y	0% WA11474th Street - Lower Buckeye to Western	0%	267,952	-	-	-	-	-	267,952
DIST	Y	Y	50% WA1153127th Ave - Lower Buckeye to Dysart	50%	-	-	1,500,000	-	-	-	1,500,000
SOS	Y	Y	0% WA1160Well 24 Gateway Crossing - 99th and McDowell	0%	-	-	-	-	-	-	-
DIST	Y	Y	0% WA1169Rio Vista Waterline Replacement	0%	16,130	-	-	-	-	-	16,130
SOS	Y	Y	100% WA1190Landcrest Well - El Mirage / N. of Indian School	100%	1,285,000	-	-	-	-	-	1,285,000
SOS	Y	Y	100% WA1201Wieler Well - SWC Avondale / Van Buren	100%	650,000	-	-	-	-	-	650,000
DIST	Y	Y	100% WA1205Van Buren - 105th to 101st Ave Waterline	100%	8,100,000	3,500,000	-	-	-	-	11,600,000
TRANK	Y	Y	100% WA1211Reclaimed Water Line - Construction	100%	1,500,000	-	-	-	-	-	1,500,000
SOS	Y	Y	100% WA1212Purchase of Rigby Water Company	100%	900,000	-	-	-	-	-	900,000
TRANK	Y	Y	100% WA1213Well 22 / Van Buren St Transmission Line	100%	700,000	-	-	-	-	-	700,000
SOS	Y	Y	100% WA1214MARWEST well	100%	600,000	-	1,300,000	-	-	-	2,000,000
SOS	Y	Y	100% WA1216Well 25 at Van Buren & El Mirage	100%	-	300,000	-	-	-	-	300,000
SOS	Y	Y	100% WA1226Design for Surface Water Plant	100%	-	225,000	-	-	-	-	225,000
SOS	Y	Y	0% WA1227SRP Groundwater Restoration	0%	-	-	225,000	-	-	-	225,000
DIST	Y	Y	100% WA1231Dysart Road - Harrison to Lower Buckeye Rd waterline project	100%	-	-	500,000	-	-	-	500,000
PMP	Y	Y	100% WA1232Additional Storage Tank and Booster at Coldwater	100%	-	-	-	2,000,000	-	-	2,000,000
SOS	Y	Y	100% WA1235Surface Water Plant Construction	100%	-	-	-	-	2,000,000	3,600,000	5,600,000
PMP	Y	Y	100% WA1236Lakin Booster Station and Storage Tank	100%	-	-	-	-	2,000,000	900,000	2,900,000
SOS	Y	Y	100% WA1241Additional Storage Tanks at Del Rio Booster/Reservoir	100%	-	-	-	-	-	900,000	900,000
Total					\$ 28,645,018	\$ 8,875,000	\$ 7,675,000	\$ 11,375,000	\$ 11,685,000	\$ 10,740,000	\$ 76,995,018

Notes: Expansion Percentages provided by City staff

Classification of Additional Assets Added Through CIP

Asset Type	Description	Source of Supply	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	Total
SOS	Pumping	Source of Supply	11,660,001	-	-	5,475,000	4,775,000	5,400,000	27,310,001
PMP	Treatment	-	-	-	-	2,000,000	2,000,000	500,000	4,500,000
TRANK	Transmission	-	-	-	-	-	-	-	-
DIST	Distribution	-	9,410,805	3,500,000	-	300,000	1,200,000	-	14,110,805
GEN	General Plant	-	7,102,061	700,000	2,000,000	3,800,000	3,510,000	4,490,000	21,602,061

Normal Strength - BOD **1500**
 Normal Strength - SS **1000**

City of Avondale, Arizona
 Cost of Service Analysis
 Calculation of Estimated Pounds of BOD/SS Removed

Calculation of Estimated Pounds of BOD Removed														Calculation of Estimated Pounds of SS Removed								
Account Type	Water Rate Code	Sewer Rate Code	Class	Class 2	Meter Size	Inside / Outside	Wastewater Flow (1,000 Gallons)	Wastewater Flow (Liters)	Industry Standard Loading Factor (mg/L)	Total Estimated BOD Removed (mg)	Total Estimated BOD Removed (Pounds)	Normal Strength (mg/L)	Estimated BOD Removed from Normal Strength Flows (mg)	Estimated BOD Removed from Normal Strength Flows (Pounds)	Estimated BOD Removed from Extra Strength Flows	Industry Standard Loading Factor (mg/L)	Total Estimated SS Removed (mg)	Total Estimated SS Removed (Pounds)	Normal Strength Threshold (mg/L)	Estimated SS Removed from Normal Strength Flows (mg)	Estimated SS Removed from Normal Strength Flows (Pounds)	Estimated SS Removed from Extra Strength Flows
01	001	101	Residential Residential		0.75		158	598,225	250	149,556,301	330	1500	149,556,301	330	-	225	134,600,670	297	1000	134,600,670	297	-
01	101	101	Residential Residential		0.75		1,699,490	6,434,669,145	250	1,608,667,286,137	3,546,505	1500	1,608,667,286,137	3,546,505	-	225	1,447,800,557,523	3,191,854	1000	1,447,800,557,523	3,191,854	-
01	102	101	Residential Residential		1		43,071	163,076,947	250	40,769,236,837	89,881	1500	40,769,236,837	89,881	-	225	36,692,313,153	80,893	1000	36,692,313,153	80,893	-
01	103	101	Residential Residential		1.5		429	1,624,295	250	406,073,753	895	1500	406,073,753	895	-	225	365,466,377	806	1000	365,466,377	806	-
01	104	101	Residential Residential		2		104	393,768	250	98,442,122	217	1500	98,442,122	217	-	225	88,597,910	195	1000	88,597,910	195	-
01	107	101	Residential Residential		0.75		5,208	19,718,714	250	4,929,678,564	10,868	1500	4,929,678,564	10,868	-	225	4,436,710,708	9,781	1000	4,436,710,708	9,781	-
01	201	201	Residential Professional Office		0.75		11	41,649	130	5,414,317	12	1500	5,414,317	12	-	80	3,331,887	7	1000	3,331,887	7	-
02	301	101	Multi-Famil Residential		0.75		140	530,073	250	132,518,241	292	1500	132,518,241	292	-	225	119,266,417	263	1000	119,266,417	263	-
02	301	301	Multi-Famil Multi-Family		0.75		293,832	1,112,517,137	250	278,129,284,165	613,170	1500	278,129,284,165	613,170	-	225	250,316,355,748	551,853	1000	250,316,355,748	551,853	-
03	201	111	Commercial Bakery Wholesale		0.75		200	757,247	1000	757,247,091	1,669	1500	757,247,091	1,669	-	600	454,348,255	1,002	1000	454,348,255	1,002	-
03	203	111	Commercial Bakery Wholesale		1.5		407	1,540,998	1000	1,540,997,831	3,397	1500	1,540,997,831	3,397	-	600	924,598,698	2,038	1000	924,598,698	2,038	-
03	202	112	Commercial Hospital & Convalescence		2		329	1,245,671	250	311,417,866	687	1500	311,417,866	687	-	100	124,567,147	275	1000	124,567,147	275	-
03	204	112	Commercial Hospital & Convalescence		0.75		6,646	25,163,321	250	6,290,830,211	13,869	1500	6,290,830,211	13,869	-	100	2,516,332,084	5,548	1000	2,516,332,084	5,548	-
03	201	115	Commercial Markets with Garbage Disposal		1.5		593	2,245,238	800	1,796,190,101	3,960	1500	1,796,190,101	3,960	-	800	1,796,190,101	3,960	1000	1,796,190,101	3,960	-
03	203	115	Commercial Markets with Garbage Disposal		1.5		321	1,215,382	800	972,305,265	2,144	1500	972,305,265	2,144	-	800	972,305,265	2,144	1000	972,305,265	2,144	-
03	204	115	Commercial Markets with Garbage Disposal		2		8,938	33,841,373	800	27,073,098,008	59,686	1500	27,073,098,008	59,686	-	800	27,073,098,008	59,686	1000	27,073,098,008	59,686	-
03	201	117	Commercial Repair Shop and Service Station		0.75		899	3,403,826	180	612,688,622	1,351	1500	612,688,622	1,351	-	280	953,071,189	2,101	1000	953,071,189	2,101	-
03	202	117	Commercial Repair Shop and Service Station		1		1,402	5,308,302	180	955,494,380	2,107	1500	955,494,380	2,107	-	280	1,486,324,591	3,277	1000	1,486,324,591	3,277	-
03	203	117	Commercial Repair Shop and Service Station		1.5		1,302	4,929,679	180	887,342,142	1,956	1500	887,342,142	1,956	-	280	1,380,309,998	3,043	1000	1,380,309,998	3,043	-
03	204	117	Commercial Repair Shop and Service Station		2		5,827	22,062,394	180	3,971,230,921	8,755	1500	3,971,230,921	8,755	-	280	6,177,470,321	13,619	1000	6,177,470,321	13,619	-
03	201	118	Commercial Restaurant		0.75		4,743	17,958,115	1000	17,958,114,770	39,591	1500	17,958,114,770	39,591	-	600	10,774,868,862	23,755	1000	10,774,868,862	23,755	-
03	202	118	Commercial Restaurant		1		1,418	5,368,882	1000	5,368,881,877	11,836	1500	5,368,881,877	11,836	-	600	3,221,329,126	7,102	1000	3,221,329,126	7,102	-
03	203	118	Commercial Restaurant		1.5		8,035	30,422,401	1000	30,422,401,893	67,070	1500	30,422,401,893	67,070	-	600	18,253,441,136	40,242	1000	18,253,441,136	40,242	-
03	204	118	Commercial Restaurant		2		4,801	18,177,716	1000	18,177,716,427	40,075	1500	18,177,716,427	40,075	-	600	10,906,629,856	24,045	1000	10,906,629,856	24,045	-
03	204	120	Commercial Schools & Colleges		0.75		264	999,566	130	129,943,601	286	1500	129,943,601	286	-	100	99,956,616	220	1000	99,956,616	220	-
03	201	121	Commercial Bars W/O Dining		1		276	1,045,001	200	209,000,197	461	1500	209,000,197	461	-	200	209,000,197	461	1000	209,000,197	461	-
03	202	121	Commercial Bars W/O Dining		1		279	1,056,360	200	211,271,938	466	1500	211,271,938	466	-	200	211,271,938	466	1000	211,271,938	466	-
03	201	178	Commercial Commercial Laundry		0.75		218	825,399	450	371,429,698	819	1500	371,429,698	819	-	240	198,095,839	437	1000	198,095,839	437	-
03	004	201	Commercial Professional Office		2		26	98,442	130	12,797,476	28	1500	12,797,476	28	-	80	7,875,370	17	1000	7,875,370	17	-
03	201	201	Commercial Professional Office		0.75		6,954	26,329,481	130	3,422,832,577	7,546	1500	3,422,832,577	7,546	-	80	2,106,358,509	4,644	1000	2,106,358,509	4,644	-
03	202	201	Commercial Professional Office		1		4,104	15,538,710	130	2,020,032,341	4,453	1500	2,020,032,341	4,453	-	80	1,243,096,825	2,741	1000	1,243,096,825	2,741	-
03	203	201	Commercial Professional Office		1.5		13,090	49,561,822	130	6,443,036,876	14,204	1500	6,443,036,876	14,204	-	80	3,964,945,770	8,741	1000	3,964,945,770	8,741	-
03	204	201	Commercial Professional Office		2		47,221	178,789,824	130	23,242,677,184	51,241	1500	23,242,677,184	51,241	-	80	14,303,185,959	31,533	1000	14,303,185,959	31,533	-
03	205	201	Commercial Professional Office		3		3,055	11,566,949	130	1,503,703,412	3,315	1500	1,503,703,412	3,315	-	80	925,355,946	2,040	1000	925,355,946	2,040	-
03	201	202	Commercial Department Store & Retail		0.75		2,580	9,768,487	150	1,465,273,122	3,230	1500	1,465,273,122	3,230	-	150	1,465,273,122	3,230	1000	1,465,273,122	3,230	-
03	202	202	Commercial Department Store & Retail		1		1,121	4,244,370	150	636,655,492	1,404	1500	636,655,492	1,404	-	150	636,655,492	1,404	1000	636,655,492	1,404	-
03	203	202	Commercial Department Store & Retail		1.5		847	3,206,941	150	481,041,215	1,061	1500	481,041,215	1,061	-	150	481,041,215	1,061	1000	481,041,215	1,061	-
03	204	202	Commercial Department Store & Retail		2		25,293	95,765,253	150	14,364,788,010	31,669	1500	14,364,788,010	31,669	-	150	14,364,788,010	31,669	1000	14,364,788,010	31,669	-
03	203	301	Commercial Multi-Family		1.5		2,076	7,860,225	250	1,965,056,202	4,332	1500	1,965,056,202	4,332	-	225	1,768,550,582	3,899	1000	1,768,550,582	3,899	-
03	301	301	Commercial Multi-Family		0.75		2,076	7,860,225	250	1,965,056,202	4,332	1500	1,965,056,202	4,332	-	225	1,768,550,582	3,899	1000	1,768,550,582	3,899	-
04	201	120	Schools Schools & Colleges		0.75		983	3,721,869	130	483,843,029	1,067	1500	483,843,029	1,067	-	100	372,186,945	821	1000	372,186,945	821	-
04	202	120	Schools Schools & Colleges		1		116	439,203	130	57,096,431	126	1500	57,096,431	126	-	100	43,920,331	97	1000	43,920,331	97	-
04	203	120	Schools Schools & Colleges		1.5		6,623	25,076,237	130	3,259,910,866	7,187	1500	3,259,910,866	7,187	-	100	2,507,623,743	5,528	1000	2,507,623,743	5,528	-
04	204	120	Schools Schools & Colleges		2		22,150	83,865,115	130	10,902,464,997	24,036	1500	10,902,464,997	24,036	-	100	8,386,511,536	18,489	1000	8,386,511,536	18,489	-
04	205	120	Schools Schools & Colleges		3		9,511	36,010,885	130	4,681,415,106	10,321	1500	4,681,415,106	10,321	-	100	3,601,088,543	7,939	1000	3,601,088,543	7,939	-
04	206	120	Schools Schools & Colleges		4		10,732	40,633,879	130	5,282,404,260	11,646	1500	5,282,404,260	11,646	-	100	4,063,387,892	8,958	1000	4,063,387,892	8,958	-
04	203	177	Schools Laundromat		1.5		785	2,972,195	150	445,829,225	983	1500	445,829,225	983	-	110	326,941,432	721	1000	326,941,432	721	-
05	201	201	Churches Professional Office		0.75		2,088	7,905,660	130	1,027,735,752	2,266	1500	1,027,735,752	2,266	-	80	632,452,771	1,394	1000	632,452,771	1,394	-
05	203	201	Churches Professional Office		1.5		1,225	4,638,138	130	602,957,996	1,329	1500	602,957,996	1,329	-	80	371,051,075	818	1000	371,051,075	818	-
05	204	201	Churches Professional Office		2		1,406	5,323,447	130	692,048,117	1,526	1500	692,048,117	1,526	-	80	425,875,764	939	1000	425,875,764	939	-
06	203	201	Industry Professional Office		1.5		95	359,892	130	46,760,008	103	1500	46,760,008	103	-	80	28,775,389	63	1000	28,775,389	63	-
07	202	177	Laundries Laundromat		1		255</															

Allocation of Total Wastewater Treatment Costs to Removal of BOD/SS

	BOD	SS	Total
Total Wastewater Treatment Costs			\$ 3,959,627
Estimated Pounds Removed from Normal Strength Wastewater Flow	5,435,509	4,836,664	10,272,172
Estimated Pounds Removed	5,435,509	4,836,664	10,272,172
Pct of Total Pounds Removed	52.9%	47.1%	
Allocated Treatment Costs to BOD/SS	\$ 2,771,739	\$ 1,187,888	\$ 3,959,627
Pct of costs of Treatment	70.00%	30.00%	
Unit Cost per Pound	\$ 0.510	\$ 0.246	

Calculation of BOD charge per 1,000 Gallons

Sewer Rate Code	Description	Strength Charge =	Vs	Conv Factor	Unit Charge	Strength Index	Allowed	BOD	
								Strength Charge per 1,000 Gallons	SS Strength Charge per 1,000 Gallons
000	No-Charge	\$ 0.0043	1	0.00834	\$ 0.510	0	1500	\$ -	-
010	Auto Steam Cleaning	\$ 0.0043	1	0.00834	\$ 0.510	1150	1500	\$ 4.89	2.560
101	Residential	\$ 0.0043	1	0.00834	\$ 0.510	250	1500	\$ 1.06	0.461
111	Bakery Wholesale	\$ 0.0043	1	0.00834	\$ 0.510	1000	1500	\$ 4.25	1.229
112	Hospital & Convalescence	\$ 0.0043	1	0.00834	\$ 0.510	250	1500	\$ 1.06	0.205
115	Markets with Garbage Disposal	\$ 0.0043	1	0.00834	\$ 0.510	800	1500	\$ 3.40	1.639
117	Repair Shop and Service Station	\$ 0.0043	1	0.00834	\$ 0.510	180	1500	\$ 0.77	0.574
118	Restaurant	\$ 0.0043	1	0.00834	\$ 0.510	1000	1500	\$ 4.25	1.229
120	Schools & Colleges	\$ 0.0043	1	0.00834	\$ 0.510	130	1500	\$ 0.55	0.205
121	Bars w/O Dining	\$ 0.0043	1	0.00834	\$ 0.510	200	1500	\$ 0.85	0.410
177	Laundromat	\$ 0.0043	1	0.00834	\$ 0.510	150	1500	\$ 0.64	0.225
178	Commercial Laundry	\$ 0.0043	1	0.00834	\$ 0.510	450	1500	\$ 1.91	0.492
179	Car Wash	\$ 0.0043	1	0.00834	\$ 0.510	20	1500	\$ 0.09	0.307
201	Professional Office	\$ 0.0043	1	0.00834	\$ 0.510	130	1500	\$ 0.55	0.164
202	Department Store & Retail	\$ 0.0043	1	0.00834	\$ 0.510	150	1500	\$ 0.64	0.307
301	Multi-Family	\$ 0.0043	1	0.00834	\$ 0.510	250	1500	\$ 1.06	0.461
302	Mobile Home Park	\$ 0.0043	1	0.00834	\$ 0.510	250	1500	\$ 1.06	0.461
600	Hotel w/Dining	\$ 0.0043	1	0.00834	\$ 0.510	500	1500	\$ 2.13	1.229
601	Hotel w/o Dining	\$ 0.0043	1	0.00834	\$ 0.510	310	1500	\$ 1.32	0.246
602	Mortuaries	\$ 0.0043	1	0.00834	\$ 0.510	800	1500	\$ 3.40	1.639
603	Septage	\$ 0.0043	1	0.00834	\$ 0.510	5400	1500	\$ 22.97	24.580
604	Soft Water Service	\$ 0.0043	1	0.00834	\$ 0.510	3	1500	\$ 0.01	0.113

Calculation of SS Charge per 1,000 Gallons

Sewer Rate Code	Description	Strength Charge =	Vs	Conv Factor	Unit Charge	Strength Index	Allowed	SS	
								Strength Charge per 1,000 Gallons	Total Strength Charge
000	No-Charge	\$ 0.002	1	0.00834	\$ 0.246	0	1000	\$ -	\$ -
010	Auto Steam Cleaning	\$ 0.002	1	0.00834	\$ 0.246	1250	1000	\$ 4.89	\$ 7.45
101	Residential	\$ 0.002	1	0.00834	\$ 0.246	225	1000	\$ 1.06	\$ 1.52
111	Bakery Wholesale	\$ 0.002	1	0.00834	\$ 0.246	600	1000	\$ 4.25	\$ 5.48
112	Hospital & Convalescence	\$ 0.002	1	0.00834	\$ 0.246	100	1000	\$ 1.06	\$ 1.27
115	Markets with Garbage Disposal	\$ 0.002	1	0.00834	\$ 0.246	800	1000	\$ 3.40	\$ 5.04
117	Repair Shop and Service Station	\$ 0.002	1	0.00834	\$ 0.246	280	1000	\$ 0.77	\$ 1.34
118	Restaurant	\$ 0.002	1	0.00834	\$ 0.246	600	1000	\$ 4.25	\$ 5.48
120	Schools & Colleges	\$ 0.002	1	0.00834	\$ 0.246	100	1000	\$ 0.55	\$ 0.76
121	Bars w/O Dining	\$ 0.002	1	0.00834	\$ 0.246	200	1000	\$ 0.85	\$ 1.26
177	Laundromat	\$ 0.002	1	0.00834	\$ 0.246	110	1000	\$ 0.64	\$ 0.86
178	Commercial Laundry	\$ 0.002	1	0.00834	\$ 0.246	240	1000	\$ 1.91	\$ 2.41
179	Car Wash	\$ 0.002	1	0.00834	\$ 0.246	150	1000	\$ 0.55	\$ 0.39
201	Professional Office	\$ 0.002	1	0.00834	\$ 0.246	80	1000	\$ 0.30	\$ 0.72
202	Department Store & Retail	\$ 0.002	1	0.00834	\$ 0.246	150	1000	\$ 0.64	\$ 0.95
301	Multi-Family	\$ 0.002	1	0.00834	\$ 0.246	225	1000	\$ 1.06	\$ 1.52
302	Mobile Home Park	\$ 0.002	1	0.00834	\$ 0.246	225	1000	\$ 1.06	\$ 1.52
600	Hotel w/Dining	\$ 0.002	1	0.00834	\$ 0.246	600	1000	\$ 2.13	\$ 3.36
601	Hotel w/o Dining	\$ 0.002	1	0.00834	\$ 0.246	120	1000	\$ 1.32	\$ 1.56
602	Mortuaries	\$ 0.002	1	0.00834	\$ 0.246	800	1000	\$ 3.40	\$ 5.04
603	Septage	\$ 0.002	1	0.00834	\$ 0.246	12000	1000	\$ 24.58	\$ 47.55
604	Soft Water Service	\$ 0.002	1	0.00834	\$ 0.246	55	1000	\$ 0.01	\$ 0.13