City of Surprise

SURPRISE
ARIZONA

# STORMWATER UTILITY FORMATION

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# SECTION I: INTRODUCTION

This section describes the context and project scope upon which the body of this report is based.

## A. BACKGROUND

In July, 2014, the City of Surprise (City) contracted with Financial Consulting Solutions Group, Inc. (FCS GROUP) to perform a stormwater utility formation and rate study that would include structuring a stormwater rate to equitably recover the costs of stormwater management within the parameters of the Arizona Constitution and Arizona Revised Statutes. The City's stormwater functions are currently funded by the Streets Division (sweeping) and the Wastewater Division (maintenance, etc.).

## B. SCOPE OF SERVICES

With this study, the City wished to implement a stormwater utility and supporting rate to provide the funding necessary to allow stormwater functions to be independent and fully funded. The study was performed using the following general approach:

- **Policy Framework for Charges.** In this step, we worked with City staff to identify, analyze, and agree on key policy issues.
- **Customer Base Calculation.** In this step, we worked with City staff to create customer base estimates for the utility. Additional information on the calculation is included as **Appendix A** to this report.
- **Technical Analysis.** In this step, we worked with City staff to perform a detailed financial analysis with projected costs, utility revenue requirements, and resulting rates. The technical analysis is included as **Appendices B and C** to this report.
- **Documentation and Presentation.** In these tasks, we wrote this report describing the recommended charge structure and charges, and presented results to the City Council and the general public.

# SECTION II: POLICY FRAMEWORK

In this section, we examine four key issues related to funding ongoing City stormwater management: (1) stormwater program funding options, (2) stormwater utility rate structure options, (3) stormwater rate credits and exemptions, and (4) stormwater utility fiscal policies.

## A. FUNDING OPTIONS

In examining the question of appropriate funding options, it is important to consider the purpose of the program. The City of Surprise stormwater program exists in large part to meet a number of federal, state, and local regulations, most prominent among them being National Pollutant Discharge Elimination System (NPDES) requirements as managed through Arizona Pollutant Discharge Elimination System (AZPDES) permits, 401 Certification, superfund site rules, the U.S. Environmental Protection Agency (EPA) Ground Water Rule run through the Arizona Department of Environmental Quality (ADEQ), and additional risk costs – to say nothing of potential future regulatory requirements. Local regulations include the City's Storm Water Service Code (Chapter 58, Article VI, Surprise Municipal Code) and Stormwater Management Code (Chapter 117, Surprise Municipal Code). Compliance with these and other regulations requires dedicated, reliable funding – a key criterion in the selection of a recommended funding approach.

Many communities (although few in Arizona[1]) employ utility service charges to fund their storm and surface water management programs. Service charges provide a dependable, predictable, legally defensible and equitable funding source that is dedicated to its purpose and rationally based on the service provided to individual property owners. The American Public Works Association concludes the following:

> The user charge and utility concepts are the most dependable and equitable approaches available to local governments for financing stormwater management. Great care should be taken in advance of establishing such a system to assure a legal, beneficial, equitable, acceptable, and effective management agency.[2]

However, there are other potential sources of funding for surface water management programs and program components, including the following, evaluated below:

- General Fund
- Special Assessments
- Special Fees
- Impact Fees
- Conventional Debt
- Special Grants and Loans

Use of **General Fund** money is usually unrestricted, and thus could be used to fund stormwater management. However, the general fund is subject to many competing demands, and cannot usually be considered a reliable source for ongoing funding.

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[1] We know of stormwater utilities in the cities of Flagstaff, Oro Valley, Peoria, Scottsdale, and Tucson.

[2] *Urban Stormwater Management (American Public Works Association, 1981), 263.*

**Special Assessments** are most commonly structured as local improvement districts, these funding mechanisms assess individual properties benefited or served by a specific capital improvement for a share of the cost of that facility. Typically, benefit must be demonstrated by an increase in assessed valuation due to the improvement. Although special assessment charges are not recommended at this time, the idea of special benefits will be discussed in more detail in the rate structure section.

**Special Fees** or direct charges may be used to recover the direct costs for services performed for a customer or class of customers not generally related to the overall service charge. Again, although these fees are not recommended at this time, the idea of direct benefits will be discussed in more detail in the rate structure section.

**Impact Fees**, like utility connection charges, are one-time charges imposed as conditions of development, and are designed to recover an equitable share of the cost of capital investment incurred by the Utility. The cost basis for an impact fee, authorized in Title 9, Chapter 4 of the Arizona Code, and available for "Storm water, drainage and flood control facilities, including any appurtenances for those facilities", may include a share of planned future facilities required to support growth. It is crucial that impact fees be the product of a clear calculation basis derived from official asset accounting and capital improvement plans and that they adhere to statutory limitations and legal precedents. Revenues from such charges are available for capital purposes only and may be worth revisiting in the future, but will not fund ongoing program operations, which is the primary goal of this study.

Similarly, **Debt** and **Special Grants and Loans** such as ADEQ's Water Quality Improvement Grant (WQIG) Program, which allocates money from the U.S. EPA pursuant to Section 319(h) of the Clean Water Act, are similarly available only for capital project funding – not ongoing operations. In addition, loans require a reliable funding source to meet debt repayment needs.

FCS GROUP recommends that the City establish a stormwater utility and supporting rate in order to recover most of the costs of its maturing stormwater program. An appropriately structured rate will allow the City to charge each customer equitably and ensure that each customer pays only for service received from the Stormwater Utility. Calculated rates provide a dedicated, equitable, reliable mechanism for cost recovery for services provided.

Most cities need to utilize other sources of funding as well. It is wise to aggressively pursue federal, state, and private sector grants and loans for needed capital construction to minimize the financial burden on local ratepayers. While these sources are difficult to access, the potential cost savings to the ratepayers on qualifying projects makes pursuing them worthwhile.

If this special funding cannot be obtained, then many cities use revenue bond debt, supported by utility rates, to finance implementation of the stormwater capital plan. In most cases, the life of surface water and stormwater facilities far outreaches the term of conventional long-term debt instruments, making this type of financing cost-effective and appropriate.

**Recommendation:** To equitably and rationally address the cost of stormwater services provided by the City to individual properties in Surprise, FCS GROUP recommends that the City implement a stormwater utility, relying primarily on a calculated stormwater utility fee for service as the mechanism for program cost recovery.

## B. RATE STRUCTURE

More and more communities are employing utility service charges to fund their storm and surface water programs. Service charges provide a dependable, predictable, legally defensible, and equitable

revenue stream that is dedicated to its purpose. Additionally, this revenue stream can be realized through any of several alternative rate structures.

Rate structure options consist of impervious surface area, density of development, runoff coefficients, flat fees, land use, trip generation, and geographic location. Although they could all be used to aid in the calculation of stormwater rates, they are not as well accepted nor tied as closely to stormwater as impervious surface area. The following selection from *Stormwater Strategies: Community Responses to Runoff Pollution* describes the impervious surface area nexus clearly:

> The problem of polluted stormwater runoff has two main components: the increased volume and rate of runoff from impervious surfaces and the concentration of pollutants in the runoff. Both components are highly related to development in urban and urbanizing areas. When impervious cover (roads, highways, parking lots, and rooftops) reaches 10 and 20 percent of the area of a watershed, ecological stress becomes clearly apparent. Everyday activities, including driving and maintaining vehicles, maintaining lawns and parks, disposing of waste, and even walking pets, often cover these impervious surfaces with a coating of various harmful materials. Construction sites, power plants, failed septic systems, illegal discharges, and improper sewer connections also contribute substantial amounts of pollutants to runoff. Sediments, toxic metal particles, pesticides and fertilizers, oil and grease, pathogens, excess nutrients, and trash are common stormwater pollutants. Many of these constituents end up on roads and parking lots during dry weather only to be washed into waterbodies when it rains or when snow melts.
>
> Together, these pollutants and the increased velocity and volume of runoff cause dramatic changes in hydrology and water quality that result in a variety of problems. These include increased flooding, stream channel degradation, habitat loss, changes in water temperature, contamination of water resources, and increased erosion and sedimentation. These changes affect ecosystem functions, biological diversity, public health, recreation, economic activity, and general community well-being. Urban stormwater is not alone in causing these impacts. Industrial and agricultural runoff are equal or greater contributors. But the environmental, aesthetic, and public health impacts of diffuse pollution will not be eliminated until urban stormwater pollution is controlled.[3]

**Impervious surface area** is the most common basis for charging stormwater fees. The term refers to hard surface area that prevents or slows water permeation into the ground. Impervious surface area is most widely accepted as an appropriate measure of a property's contribution of runoff, providing a clear relationship, or "rational nexus," to service received from a stormwater program.

To administer a rate structure based on impervious surface area, data quantifying the applicable area by parcel is required. To minimize administrative and data collection costs, stormwater utilities typically develop a uniform rate for single family residential customers based on an estimated average amount of impervious surface area per developed residential parcel. The charge basis for all other customer types is generally actual measured impervious surface area by parcel. The charge itself is most commonly calculated as a dollar amount per unit of impervious surface area, or an equivalent unit of service, especially when the fee structure is implemented as a uniform charge for residential customers. (For example, one unit may equate to 2,500 square feet of average residential impervious surface area per parcel, and the fee may be $5.00 per unit charged to each residential account.)

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[3] Peter H. Lehner, George P. Aponte Clarke, Diane M. Cameron, and Andrew G. Frank, *Stormwater Strategies Community Responses to Runoff Pollution* (Natural Resources Defense Council, May 1999), xi.

An impervious-based rate structure defines a direct linkage between a parcel's contribution to runoff impacting the system infrastructure and the fee that parcel pays. The fee basis creates a standard of charging that quantifies how different amounts of impervious surface area cause proportionately different impacts on the environment in terms of flooding, water quality, and habitat degradation. By recognizing that relationship, the fee structure basis proportionately charges different customers their share of the system's cost burden and provides an equitable, defensible means of cost recovery for a stormwater utility.

**Density of development** is an alternative measure of runoff contribution. The term refers to impervious or development coverage as a percentage of parcel size. It may also be used in combination with actual impervious surface area measurements to adjust charges depending on the percentage of the parcel covered by hard surface. As an adjusting factor, it is used to acknowledge that, for example, 5,000 square feet of impervious surface on a 6,000 square foot lot more directly impacts the public system than 5,000 square feet of hard surface on a 15,000 square foot lot. As with impervious surface area, density of development is an appropriate charge basis because it adequately quantifies the relationship between the rate paid and the amount of service received. However, because of its relationship to gross parcel size, it may conflict with recent Arizona House Bill 2378, which prohibits a municipality from charging a citywide tax or fee "based on the size or value of the owner's real property or improvements to real property."

**Runoff coefficients** are yet another measurement of a property's contribution to surface water impacts. This factor is similar to density of development, but it is more closely associated with the physical characteristics of properties. When applied to lot size, runoff coefficients are generally accepted as a measure of surface water contribution and hence, service received. Information required to charge under this basis includes basic physical characteristics of land (such as slope and soil type), land use, and lot size. Under this approach, undeveloped parcels may also be charged depending upon slope variables and soil characteristics. Runoff coefficients are typically charged either as a fee per unit of area or as an adjustment factor to impervious surface area to modify the final charge based on a parcel's runoff characteristics. In measuring contribution to surface water runoff by evaluating property-specific characteristics that cause impacts, this approach proportionately recovers the costs of various activities within a stormwater program from each user based on their level of contribution. However, physical characteristics of land such as soil type and slope are not thought to be controllable by the property owner and are hence more difficult to accurately measure and quantify as a rate basis than measurements of quantity or intensity of development.

A **flat fee** per account would recover stormwater program costs uniformly from all customers. While relatively simple to calculate and administer, a flat fee structure reflects a philosophy that all customers large and small are served equally by the stormwater program. This approach conflicts with accepted research showing the negative impact of development, and more specifically impervious surface area, on surface water runoff and resulting damage to the environment. From a practical standpoint, flat fees have proven effective as long as the rates can be kept at modest levels.

**Land use** is another basis that can be used to adjust rates based on distinct characteristics of properties. Using this fee basis, adjusting factors are created to establish rates based on assumed runoff generation by land use type. For example, empirical analysis may find that industrial land use has a more significant contribution to water quality problems from stormwater runoff than undeveloped land and therefore, should be charged a proportionately higher rate.

While the fee structures discussed above focus on runoff contribution, **trip generation** as a fee basis relates automobile traffic to non-point source pollution contributed by properties. [Motor vehicles are responsible for most of the pollutants that must be addressed by the City stormwater program.] Data used to measure traffic is available from the Institute of Transportation Engineers' Trip Generation manual, which assigns a number of daily trips generated by specific land use categories. In addition to this information, customer land use types and lot size would be required to accurately calculate rates. This fee approach would be best used to recover the costs of stormwater *quality* management within a stormwater program. The City of Surprise program is generally focused on stormwater quantity management.

The final rate structure option to consider is **geographic location**. Also referred to as area-specific rates, geographic location can be defined either as the basin or sub-basin that a parcel is in, or its proximity to receiving waters or flood plains. Both bases describe areas that may differ in required levels of service in terms of capital construction and ongoing maintenance costs. By separating these costs based on location served, charges can correspondingly be set in relation to level of service. Almost all activities performed by a stormwater program are applicable for location-specific user fees given the fact that service provided can be directly linked to location and therefore the amount paid. As examples, properties in flood plains could pay a proportionately higher share of flood control costs, developments on hillsides could pay for causing additional runoff impacting those downstream, and waterfront properties could bear more of the costs of water quality improvements. It is important to note that if specific locations are less-developed than others or simply require costly activities, the resulting user fee could be economically impractical to charge property-owners.

It is recommended that the City pursue a stormwater utility fee structure that is based on impervious surface area, with single family residential customers defined as one equivalent dwelling unit (EDU). An impervious-based rate structure defines a direct linkage between a parcel's contribution to runoff impacting the system infrastructure and the fee that parcel pays – a key distinction between rates and taxes. The fee basis creates a standard of charging that quantifies how different amounts of impervious surface area cause proportionately different impacts on the environment in terms of flooding, water quality, and habitat degradation. By recognizing that relationship, the fee structure basis proportionately charges different customers their share of the system's cost burden and provides an equitable, defensible means of cost recovery for a stormwater utility. It should be noted that both Oro Valley and Flagstaff utilize impervious surface area in their respective stormwater rate structures.

**Recommendation:** FCS GROUP recommends using impervious surface area to determine chargeable area and rates to be charged for services rendered.

## C. RATE CREDITS AND EXEMPTIONS

When considering how to charge, or credit, different types of customers, it is important to remember that a stormwater rate is a fee for service, not a tax. As such, the level of a customer's charge must substantially relate to that customer's proportionate share of the utility's costs. In terms of equity and legal defensibility, it is important to recognize the significance of that type of relationship when defining exemption or credit policies because such policies could potentially move a utility away from the rational linkage between service delivered and the amount of the fee. The following types of rate credits are often considered and sometimes offered by stormwater utilities.

**Senior and/or low-income discounts or exemptions** are a common general policy, but equity considerations under an impervious surface area approach do not give cause for such adjustments. Developed properties owned by senior citizen and/or low income customers still contribute runoff that places a cost burden on the utility system. If the City wishes to pursue a social policy to grant credits or exemptions, a utility and its ratepayers should not bear the costs of that policy. To preserve the cost of service approach to rate design and avoid causing stormwater utility customers to subsidize a general City policy, the General Fund could possibly be used to fund the costs of senior and low income credits or exemptions.

**Publicly-owned properties**, similar to senior/low income credits, do not warrant rate relief. When a cost of service approach is used as the basis for fee evaluation, exemptions and credits should only be granted when the characteristics of a parcel or improvements to that property cause runoff to differ when compared to similar parcels. Some jurisdictions do not charge publicly-owned land because there is a general sense that charging simply transfers money from one City fund to another. Administratively, this may be a valid perception; however, by not charging public lands, the City may not accurately and equitably allocate what can be viewed as an overhead cost borne to support the departments that use stormwater services because of their land holdings. Effectively, utility ratepayers would bear the costs of stormwater management utilized by other user-supported services or the general public. The one common exception to this general approach has to do with charging city streets. City streets, while impervious and generating runoff, also serve as part of the stormwater conveyance system. Cities often choose to exempt their streets in recognition of this fact. This approach has been widely adopted and is supported by the regulatory definition of a Municipal Separate Storm Sewer System, which states:

> a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States. (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.[4]

Further, it would be unfair for the General Fund, which is supported by all taxpayers, to also take on the cost of stormwater from individually owned pieces of property. This would result in a "double taxation" of many taxpayers.

Like public properties, **tax-exempt properties** are also subject to the general criterion for credit or exemption eligibility; that is, the specific parcel must have characteristics or improvements that cause runoff to differ from similar properties in order to be eligible for cost relief. There may be general City or social policies that aim to provide cost relief to these properties; as such, any credit granted should be funded from a source outside the utility. As an alternative, cost relief may be granted without General Fund subsidization in cases where the tax-exempt property, most often a school, provides an in-kind service such as topic-specific curriculum in lieu of paying a utility service charge.

[4] 40 CFR 122.26(b)(8)

**Undeveloped property** areas by definition have no added impervious area. Therefore it would make sense to exclude them from stormwater rates, as they do not contribute to increased runoff. Charging undeveloped property would be inconsistent with an impervious surface area approach.

Comparatively, properties with **on-site mitigation** have a reduced effect on the public system than similar property lacking this mitigation. However, meeting (as opposed to exceeding) City development standards does not reduce costs for the utility; it simply keeps the utility whole. Granting a credit for such activities would actually reduce the amount of resources available for basic services to the remainder of the customer base. Exceeding standards – that is, providing capacity in addition to that needed by the developing (or developed) property to the benefit of the City system – in theory does reduce cost to the utility by, in effect, reducing the net utility service area. How much of a credit to grant can then be sized according to the extent to which on-site controls exceed City standards. Therefore, the two criteria to check for may be (1) effectiveness in reducing stormwater runoff and (2) whether these on-site systems are designed to handle a greater amount of stormwater than would be required as a condition of development approval. The additional capacity provided by the new development then may become the basis for the service charge credit amount.

Even though development in Surprise is required to retain all stormwater on-site, this policy would in practice grant credits only to customers who exceed that standard to the benefit of the public system. Because most utility costs are fixed, and do not necessarily vary with the volume of runoff, we propose that credits be subject to a maximum percentage of the rate – determined by an analysis of fixed or "base" costs versus variable or "use" costs as a fraction of total program cost.

In addition to rate structure exemptions and credits, FCS GROUP recommends providing an appeal process to provide for adjustments to the amount of chargeable area or fees charged.

**Recommendation:** FCS GROUP recommends providing exemptions for undeveloped properties and City streets, as well as providing a process for appeals that would allow for adjustments to fees charged, based on the amount of chargeable surface area and on-site mitigation.

## D. FISCAL POLICIES

Fiscal policies for stormwater utilities are often similar to water and wastewater utilities, but with less need to heedful of revenue shortfalls, since rates are not based on usage and therefore revenue is less volatile. Key financial policies and recommendations for minimum fund balance, system reinvestment, and debt service are described in this section.

**Minimum Fund Balances –** Operating reserves are designed to provide a liquidity cushion to ensure that adequate cash working capital will be maintained to deal with significant cash balance fluctuations such as unanticipated cash expenses, or lower than expected revenue collections. The City's current policy (Comprehensive Financial Management Policy 43a) is to maintain a minimum balance in the Operations Fund equal to 2 months of operating expenses for the water, wastewater, and solid waste utilities. This target is somewhat conservative for a stormwater utility, given the lower variability in revenue collections for a rate structure based on impervious surface area, however we recommend extending it to stormwater in order to be consistent with the City's existing utilities and to mitigate any risk inherent with a new fee.

A capital contingency reserve is an amount of cash set aside in case of an emergency should a piece of equipment or a portion of the utility's infrastructure fail unexpectedly. The reserve also could be used for other unanticipated capital needs including capital project cost overruns. Industry practices range from maintaining a balance equal to 1 to 2% of fixed assets, an amount equal to a 5-year rolling average of CIP costs, or an amount determined sufficient to fund equipment failure (other than catastrophic failure). The final target level should balance industry standards with the risk level

of the City. The City currently has a policy for water, wastewater, and solid waste utilities to maintain a minimum balance in the Operations Fund - Capital Portion equal to 2% of all tangible capital assets (Comprehensive Financial Management Policy 43b).

**System Reinvestment –** The purpose of system reinvestment funding is to provide for the replacement of aging system facilities to ensure sustainability of the system for ongoing operation. Each year, the City's assets lose value, and as they lose value they are moving toward eventual replacement. That accumulating loss in value and future liability is measured for reporting purposes through annual depreciation expense, which is based on the original cost of the asset. While this reported expense reflects the consumption of the existing asset and its original investment, the replacement of that asset will likely cost much more, factoring in inflation and construction conditions. Therefore, the added annual replacement liability is even greater than the annual depreciation expenses.

The City is forecast to begin funding system reinvestment for water at $700,000 per year, wastewater at $4.6 million per year, and sanitation at $400,000 per year and continue to increase this towards, or even above, depreciation expenses. This same tactic would be recommended for stormwater as well.

**Debt Management –** It is prudent to consider policies related to debt management as part of broader utility financial policy structure. Debt management policies should be evaluated and formalized including the level of acceptable outstanding debt, debt repayment, bond coverage, and total debt coverage targets. The City's existing bond covenants require a minimum 1.00 debt coverage test for the wastewater MPC 2007 bond; however the minimum required for revenue bonds is 1.25.

**Recommendation:** FCS GROUP recommends a minimum operating reserve of 60 days, a minimum capital reserve of 2% of fixed assets, system reinvestment equal to or above annual depreciation expenses, and remaining above a minimum 1.25 debt coverage test.

## E. SUMMARY OF RECOMMENDATIONS

FCS GROUP recommends that the City implement a stormwater utility, relying primarily on a calculated stormwater utility fee for service as the mechanism for program cost recovery. FCS GROUP recommends that this stormwater utility use impervious surface area as the primary basis to determine chargeable area and rates to be charged for services rendered. A process for appeals should also be available that would allow for adjustments to the fees charged, including exemptions as warranted, based on the amount of chargeable surface area. Fiscal policies similar to other utilities are also recommended.

# SECTION III: CUSTOMER COMPILATION

The recommended rate approach is based on the amount of actual or assumed impervious surface area on each parcel. The rate is then expressed as a dollar amount per EDU with one EDU equal to the average amount of impervious square feet on developed single family residential parcels. Under this approach, the rate calculation is thus: total annual program costs, or the revenue requirement, divided by the total number of EDUs in the customer base. The result may be divided again by twelve to convert it to a monthly charge.

$$Yearly\ Rate = \frac{Annual\ Revenue\ Requirement}{Total\ Number\ of EDUs}$$

The revenue requirement analysis is summarized in **Section IV**. In this section, we summarize the customer data compilation used in the rate calculation.

## A. RESIDENTIAL EDU CALCULATION

The City's Geographic Information System (GIS) staff analyzed LiDAR data to measure impervious surface area on all single family residential parcels within the City. Based on these measurements, the average amount of impervious surface area on single family residences in Surprise equals 3,420 square feet, which is the resulting value of one equivalent dwelling unit, or EDU (please see Appendix A for the initial customer work plan methodology followed by the City).

With data from the City's utility customer accounts and GIS data, we calculated the number of SFR EDUs in the City. There were a total of 43,700 SFR utility accounts which equates to 43,700 EDUs. The City also decided to include RV parks in the residential EDU calculation. The City decided that RV parks should be charged on a per dwelling unit basis. After surveying all RV parks, it was determined that there are 3,267 RV park EDUs, totaling 46,967 residential EDUs. The City also determined that improved residential lots would be treated as single family residential units.

## B. NON-RESIDENTIAL EDU CALCULATION

Non-residential EDUs are calculated based on actual impervious surface area of properties, with one EDU equal to 3,420 square feet of impervious surface area. There are two categories of non-residential customers: commercial and agricultural. Based on City-provided data, 1,869 commercial accounts had 135,587,096 square feet of impervious surface area, resulting in 39,645 EDUs.

The other customer class, agricultural, is calculated based on a combination of impervious and pervious surface area. Agricultural EDUs are calculated based on total impervious surface area plus 10 percent of the pervious surface area on the property. This reflects the fact that agricultural properties contribute more to stormwater infrastructure than just their impervious surface area. Agricultural accounts have approximately 139,500 square feet of total surface area. Assuming five percent impervious surface area for all agricultural land and then including 10 percent of the remaining pervious surface area in the EDU calculation, there are 5,914 agricultural EDUs.

# C. TOTAL EDU CALCULATION

Based on the calculations for residential (SFR and RV parks) and non-residential (commercial and agricultural) accounts, **Exhibit 3.1** shows the total number of accounts and EDUs in the City.

**Exhibit 3.1: EDU Summary by Customer Type**

| Customer Type | Accounts | Gross Parcel Area | Impervious Surface Area | Chargeable Pervious Area | EDUs |
|---|---|---|---|---|---|
| **Residential** | | | | | |
| **Single Family** | 43,700 | | | | 43,700 |
| **RV Park** | 3,267 | | | | 3,267 |
| **Total Residential** | 46,967 | | | | 46,967 |
| **Non-Residential** | | | | | |
| **Commercial** | 1,869 | 135,587,096 | 135,587,096 | 0 | 39,645 |
| **Agricultural** | 10 | 139,479,120 | 6,973,956 | 132,505,164 | 5,914 |
| **Total Non-Residential** | 1,879 | 275,066,216 | 142,561,052 | 132,505,164 | 45,559 |
| **Total** | 48,846 | | | | 92,526 |

**Source:** City staff, compiled by FCS Group.
**Notes:** Square feet of impervious surface area for 1 EDU is determined by average Single Family Residence.
*1 EDU = 3,420 sq. ft. of impervious area
*Each Single Family Residence is 1 EDU
*Commercial customers are charged based on sq. ft. of impervious surface area
*Agricultural customers are charged based on impervious surface area plus 10 percent of chargeable pervious area
*1 RV dwelling unit is considered 1 EDU

The City has initiated the measurement of impervious surface area for its nonresidential customers, and expects to complete that effort prior to initial billing. It is recommend that the City provide for rate adjustments when customers can demonstrate that their actual impervious area is different than that which is utilized for billing purposes.

# SECTION IV: REVENUE REQUIREMENT

The recommended rate approach is based on the amount of actual or assumed impervious surface area on the parcel. The rate is then expressed as a dollar amount per EDU with one EDU equal to 3,420 impervious square feet on a property. Under this approach, the rate calculation is thus: total annual program costs, or the revenue requirement, divided by the total number of EDUs in the customer base. The result may be divided again by twelve to convert it to a monthly charge.

$$Yearly\ Rate = \frac{Annual\ Revenue\ Requirement}{Total\ Number\ of EDUs}$$

## A. CUSTOMER DATA

As calculated in **Section III**, the City's current customer base for stormwater is 92,526 EDUs. In general, this is the denominator in the equation above for the first year of analysis. We project the customer base to grow by 0.29 percent per year thereafter based on projected increases in wastewater customer growth.

## B. ASSUMPTIONS

The assumptions regarding cost escalation, fiscal policies, and capital financing are summarized below. These factors influence the revenue requirement in future years. Note that many of these assumptions are applied by the City to water, wastewater, and sanitation utilities based on historical growth averages.

- **Annual Cost Escalation**.
  - General Cost Escalation: 3.00 percent. This escalator applies to materials and services expenditures.
  - Capital Cost Escalation: 3.16 percent. This escalator applies to capital improvement expenditures.
  - Labor Cost Escalation: 3.00 percent. This escalator applies to salary and wage expenditures.
  - Benefit Cost Escalation: 3.00 percent. This escalator applies to employee benefit expenditures.
- **Fiscal Policies**.
  - Maintain a minimum operating fund balance of 60 days of operating expenditures per the City's current financial policy (Comprehensive Financial Management Policy 43a).
  - Maintain a capital contingency reserve of 2.00 percent of fixed assets per the City's current financial policy (Comprehensive Financial Management Policy 43b).
  - The fund interest rate is expected to be 0.50 percent in the first year and escalate to 1.00 percent in fiscal year (FY) 2017-18 of the analysis period.

- **Capital Financing Policies**.
  - The City has chosen to fund all capital construction with rates.

# C. PROGRAM COSTS AND REVENUE REQUIREMENTS

The costs of the stormwater utility consist of five categories of operations and maintenance (O&M): streets right-of-way (ROW), street sweeping, wastewater collections, general stormwater operations, and future operational needs. Future operational needs are expected to begin in FY 2016-17. A summary of these expenditures for FY 2016-17 through 2021-22, including capital expenditures, is below in **Exhibit 4.1**. The street, wastewater, and general operations expenditures will increase per escalation rates in **Section IV.B**. These expenditures were in other funds but will be at least partially under the purview of the stormwater utility in the future. Future operational needs were projected by City staff. FY 2018-19 expenditures include the addition of two FTEs.

**Exhibit 4.1: Program Requirement Summary**

| Fiscal Year Ending 6/30: | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Streets ROW | $120,268 | $123,876 | $127,592 | $131,420 | $135,363 | $139,424 |
| Streets Street Sweeping | 362,874 | 373,760 | 384,973 | 396,522 | 408,418 | 420,671 |
| Wastewater Collections | 112,682 | 116,062 | 119,544 | 123,131 | 126,825 | 130,629 |
| General Operations | 22,660 | 23,340 | 24,040 | 24,761 | 25,504 | 26,269 |
| Future Operational Needs | 335,227 | 337,100 | 513,908 | 532,802 | 546,617 | 560,848 |
| Rate Funded Capital | 0 | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 |
| Total Requirement | **$953,711** | **$1,624,138** | **$1,945,058** | **$2,208,636** | **$2,492,727** | **$2,777,840** |

**Source:** Compiled by FCS GROUP. See Appendices B and C for complete information.

# D. RATES

Because the utility will be an enterprise fund, it must be self-sustaining. Also, the utility also has no identified non-rate revenues, meaning the utility must finance all of its operating expenditures through rates.

In fiscal year 2016-17, the program will have $953,711 in total expenses. Per conversations with City staff, the initial stormwater rate is calculated so as not to require a rate increase in the first few fiscal years. The resulting initial rate is $2.00 per month per EDU. In the following year, the City begins constructing capital projects, increasing the revenue requirement by $650,000 in the first year.

Starting from this initial financial position, there are two options for the stormwater utility rates in the future: raise rates when necessary in order to satisfy all financial requirements, or smooth rate increases across several years. We examine each scenario below.

## D.1 Scenario I – Required Rate Increases

The first scenario assumes that the utility will increase the rates in accordance with its financial requirements. Specifically, the utility will increase rates to cover costs projected in the coming year.

For the first two years after rate implementation, the rate per EDU will not increase. Then, the rate will increase annually to ensure adequate funding of the utility. After five years of rates, in fiscal year 2021-22, the rate will be $2.68 per EDU. An executive level summary of capital expenditures, funding, revenues, operations and maintenance expenses, rate levels, and fund balances is displayed in **Exhibit 4.2**. See **Appendix B** for a complete analysis.

**Exhibit 4.2: Scenario I Summary – Required Increases**

| Revenue Requirement | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Rate Revenues Under Existing Rates | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 |
| Non-Rate Revenues | 0 | 1,568 | 1,601 | 1,923 | 1,987 | 2,043 |
| **Total Revenues** | **$ 2,053,731** | **$ 2,061,279** | **$ 2,067,293** | **$ 2,073,595** | **$ 2,079,639** | **$ 2,085,675** |
| **Expenses** | | | | | | |
| Cash Operating Expenses | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 |
| Existing Debt Service | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - |
| Rate Funded Capital | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 |
| Additions Required to Meet Operating Fund Balance | 156,774 | 3,358 | 32,206 | 6,342 | 5,604 | 5,772 |
| **Total Expenses** | **$ 1,110,485** | **$ 1,627,496** | **$ 1,977,264** | **$ 2,214,978** | **$ 2,498,331** | **$ 2,783,612** |
| **Net Surplus (Deficiency)** | **$ 943,246** | **$ 433,783** | **$ 90,028** | **$ (141,383)** | **$ (418,692)** | **$ (697,937)** |
| Additions to Meet Coverage | - | - | - | - | - | - |
| **Total Surplus (Deficiency)** | **$ 943,246** | **$ 433,783** | **$ 90,028** | **$ (141,383)** | **$ (418,692)** | **$ (697,937)** |
| **% of Rate Revenue** | **0.00%** | **0.00%** | **0.00%** | **6.82%** | **20.15%** | **33.50%** |
| ***Annual Rate Adjustment*** | **0.00%** | **0.00%** | **0.00%** | **6.82%** | **12.48%** | **11.11%** |
| ***Cumulative Annual Rate Adjustment*** | **0.00%** | **0.00%** | **0.00%** | **6.82%** | **20.15%** | **33.50%** |
| Rate Revenues After Rate Increase | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,213,054 | $ 2,496,344 | $ 2,781,569 |
| Additional Taxes from Rate Increase | $ - | $ - | $ - | $ - | $ - | $ - |
| **Net Cash Flow After Rate Increase** | **1,100,020** | **437,141** | **122,234** | **6,342** | **5,604** | **5,772** |
| Coverage After Rate Increases | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** |
| Sample Residential Monthly Bill | **$ 2.00** | **$ 2.00** | **$ 2.00** | **$ 2.14** | **$ 2.41** | **$ 2.68** |
| Monthly Average Increase ($) | $ 2.00 | $ - | $ - | $ 0.14 | $ 0.27 | $ 0.27 |

| Fund Balance | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 |
|---|---|---|---|---|---|---|
| **SEWER OPERATIONS FUND** | | | | | | |
| **Beginning Balance** | $ 0 | $ 156,774 | $ 160,132 | $ 192,338 | $ 198,680 | $ 204,284 |
| plus: Net Cash Flow after Rate Increase | 1,100,020 | 437,141 | 122,234 | 6,342 | 5,604 | 5,772 |
| less: Transfer of Surplus to Capital Fund | (943,246) | (433,783) | (90,028) | - | (0) | (0) |
| **Ending Balance** | **$ 156,774** | **$ 160,132** | **$ 192,338** | **$ 198,680** | **$ 204,284** | **$ 210,056** |
| *Target Balance* | *$ 156,774* | *$ 160,132* | *$ 192,338* | *$ 198,680* | *$ 204,284* | *$ 210,056* |
| *Days* | *60* | *60* | *60* | *60* | *60* | *60* |
| **OPERATIONS FUND - CAPITAL PORTION** | | | | | | |
| **Beginning Balance** | $ - | $ 943,246 | $ 1,397,899 | $ 1,508,349 | $ 1,549,334 | $ 1,792,386 |
| plus: Rate Funded Capital | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 |
| plus: Transfers from Operating Fund | 943,246 | 433,783 | 90,028 | - | 0 | 0 |
| plus: Grants/ Donations/ CIAC | - | - | - | - | - | - |
| plus: Additional Proceeds (Costs) | - | - | - | - | - | - |
| plus: Transfers from SPA Funds for Deficit Repayment | - | - | - | - | - | - |
| plus: Net Debt Proceeds Available for Projects | - | - | - | - | - | - |
| plus: Interest Earnings | - | 9,432 | 13,979 | 15,083 | 15,493 | 17,924 |
| Total Funding Sources | **$ 943,246** | **$ 2,036,461** | **$ 2,276,906** | **$ 2,523,432** | **$ 2,814,828** | **$ 3,310,310** |
| less: Capital Expenditures | - | (638,562) | (768,557) | (974,098) | (1,022,441) | (1,597,248) |
| less: Transfers to SPA Funds | - | - | - | - | - | - |
| **Ending Working Capital Balance** | **$ 943,246** | **$ 1,397,899** | **$ 1,508,349** | **$ 1,549,334** | **$ 1,792,386** | **$ 1,713,062** |
| *Minimum Target Balance* | *$ 200,000* | *$ 212,771* | *$ 228,142* | *$ 247,624* | *$ 268,073* | *$ 300,018* |
| **COMBINED BEGINNING BALANCE** | **$ 0** | **$ 1,100,020** | **$ 1,558,031** | **$ 1,700,687** | **$ 1,748,014** | **$ 1,996,670** |
| **COMBINED ENDING BALANCE** | **$ 1,100,020** | **$ 1,558,031** | **$ 1,700,687** | **$ 1,748,014** | **$ 1,996,670** | **$ 1,923,118** |

## D.2 Scenario II – Smoothed Rate Increases

This scenario smooths rate increases, requiring fewer rate increases and lower rate reactivity. This also means that rates will increase sooner under this scenario. Under this scenario, the rate will not increase for four years after implementation, after which it will increase by $0.75. After five years of

rates, in fiscal year 2021-22, the rate will be $2.75 per EDU. An executive level summary of capital expenditures, funding, revenues, operations and maintenance expenses, rate levels, and fund balances is displayed in **Exhibit 4.3**. See **Appendix C** for a complete analysis.

**Exhibit 4.3: Scenario II Summary – Smoothed Increases**

| Revenue Requirement | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Rate Revenues Under Existing Rates | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 |
| Non-Rate Revenues | 0 | 1,568 | 1,601 | 1,923 | 573 | 2,043 |
| **Total Revenues** | **$ 2,053,731** | **$ 2,061,279** | **$ 2,067,293** | **$ 2,073,595** | **$ 2,078,225** | **$ 2,085,675** |
| **Expenses** | | | | | | |
| Cash Operating Expenses | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 |
| Existing Debt Service | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - |
| Rate Funded Capital | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 |
| Additions Required to Meet Operating Fund Balance | - | - | - | - | - | 5,772 |
| **Total Expenses** | **$ 953,711** | **$ 1,624,138** | **$ 1,945,058** | **$ 2,208,636** | **$ 2,492,727** | **$ 2,783,612** |
| **Net Surplus (Deficiency)** | **$ 1,100,020** | **$ 437,141** | **$ 122,234** | **$ (135,041)** | **$ (414,502)** | **$ (697,937)** |
| Additions to Meet Coverage | - | - | - | - | - | - |
| **Total Surplus (Deficiency)** | **$ 1,100,020** | **$ 437,141** | **$ 122,234** | **$ (135,041)** | **$ (414,502)** | **$ (697,937)** |
| **% of Rate Revenue** | **0.00%** | **0.00%** | **0.00%** | **6.52%** | **19.95%** | **33.50%** |
| ***Annual Rate Adjustment*** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **37.50%** | **0.00%** |
| ***Cumulative Annual Rate Adjustment*** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **37.50%** | **37.50%** |
| Rate Revenues After Rate Increase | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,856,771 | $ 2,864,994 |
| Additional Taxes from Rate Increase | $ - | $ - | $ - | $ - | $ - | $ - |
| **Net Cash Flow After Rate Increase** | **1,100,020** | **437,141** | **122,234** | **(135,041)** | **364,617** | **89,197** |
| Coverage After Rate Increases | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** |
| Sample Residential Monthly Bill | **$ 2.00** | **$ 2.00** | **$ 2.00** | **$ 2.00** | **$ 2.75** | **$ 2.75** |
| Monthly Average Increase ($) | $ 2.00 | $ - | $ - | $ - | $ 0.75 | $ - |

| Fund Balance | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 |
|---|---|---|---|---|---|---|
| **SEWER OPERATIONS FUNI** | | | | | | |
| **Beginning Balance** | $ 0 | $ 156,774 | $ 160,132 | $ 192,338 | $ 57,297 | $ 204,284 |
| plus: Net Cash Flow after Rate Increase | 1,100,020 | 437,141 | 122,234 | (135,041) | 364,617 | 89,197 |
| less: Transfer of Surplus to Capital Fund | (943,246) | (433,783) | (90,028) | - | (217,631) | (83,425) |
| **Ending Balance** | **$ 156,774** | **$ 160,132** | **$ 192,338** | **$ 57,297** | **$ 204,284** | **$ 210,056** |
| *Target Balance* | *$ 156,774* | *$ 160,132* | *$ 192,338* | *$ 198,680* | *$ 204,284* | *$ 210,056* |
| *Days* | *60* | *60* | *60* | *17* | *60* | *60* |
| **OPERATIONS FUND - CAPITAL PORTION** | | | | | | |
| **Beginning Balance** | $ - | $ 943,246 | $ 1,397,899 | $ 1,508,349 | $ 1,549,334 | $ 2,010,017 |
| plus: Rate Funded Capital | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 |
| plus: Transfers from Operating Fund | 943,246 | 433,783 | 90,028 | - | 217,631 | 83,425 |
| plus: Grants/ Donations/ CIAC | - | - | - | - | - | - |
| plus: Additional Proceeds (Costs) | - | - | - | - | - | - |
| plus: Transfers from SPA Funds for Deficit Repayment | - | - | - | - | - | - |
| plus: Net Debt Proceeds Available for Projects | - | - | - | - | - | - |
| plus: Interest Earnings | - | 9,432 | 13,979 | 15,083 | 15,493 | 20,100 |
| Total Funding Source | **$ 943,246** | **$ 2,036,461** | **$ 2,276,906** | **$ 2,523,432** | **$ 3,032,458** | **$ 3,613,542** |
| less: Capital Expenditures | - | (638,562) | (768,557) | (974,098) | (1,022,441) | (1,597,248) |
| less: Transfers to SPA Funds | - | - | - | - | - | - |
| **Ending Working Capital Balance** | **$ 943,246** | **$ 1,397,899** | **$ 1,508,349** | **$ 1,549,334** | **$ 2,010,017** | **$ 2,016,294** |
| *Minimum Target Balance* | *$ 200,000* | *$ 212,771* | *$ 228,142* | *$ 247,624* | *$ 268,073* | *$ 300,018* |
| **COMBINED BEGINNING BALANCE** | **$ 0** | **$ 1,100,020** | **$ 1,558,031** | **$ 1,700,687** | **$ 1,606,632** | **$ 2,214,301** |
| **COMBINED ENDING BALANCE** | **$ 1,100,020** | **$ 1,558,031** | **$ 1,700,687** | **$ 1,606,632** | **$ 2,214,301** | **$ 2,226,350** |

# E. RATE CREDITS

As a general consideration, it is important to recognize that onsite mitigation might or might not reduce the utility's cost of providing service. Since onsite mitigation only partially neutralizes the impact of developing the property, the cost of meeting City standards and constructing onsite mitigation for property owners could arguably be considered a cost of doing business. However,

using credits as a means of incentivizing the construction of onsite facilities with extra capacity can reduce the utility's costs. The amount of credit for such oversizing, if consistent with the City's goals, could be determined by the extent to which the onsite facility exceeds minimum requirements.

As stated previously, we recommend the City implement a rate credit structure to reflect the actual benefit from cost reductions received from onsite storm drainage systems. The City should not offer credits for those program costs that are unaffected by customers' onsite mitigation measures, or "base" costs. These are costs the utility would incur regardless of the mitigation factors implemented on properties. However, the City can justify offering credits to the extent that customers' onsite mitigation measures result in cost savings or other quantifiable benefits for the utility, or "use" costs.

After calculating the total revenue requirement for the utility (see **Appendices B and C**), we determined the maximum rate credit using the following approach. With the input of City staff, each category of stormwater program costs (FY 2018-19) was allocated between base and use. Results are shown below:

- Streets Right-of-Way – $127,592 – 100% base
- Street Sweeping – $384,973 – 100% base
- Sewer Collections / Stormwater – $119,544 – 100% base
- General Operations – $24,040 – 100% base
- Future Operational Needs – $513,908 – 50% base, 50% use
- Rate Funded Capital – $775,000 – 50% base, 50% use

These allocations of the FY 2019 budget, totaling $1,945,058, resulted in $1,300,604 of expenses being classified as base costs and $644,454 classified as use costs, or 67% and 33% respectively.

The maximum rate credit was determined by dividing each component cost by the expected number of EDUs to be charged. It was assumed that up to 40% of nonresidential EDUs would be lost to credits, or refinements to their chargeable area based on updated measurements, shown in **Exhibit 4.4**.

**Exhibit 4.4: Chargeable EDU Calculation**

| | Residential | Non-Residential | Total |
|---|---|---|---|
| ***Accounts (FY 2019)*** | *47,241* | *1,889* | *49,130* |
| **EDUs (FY 2019)** | 47,241 | 45,824 | 93,065 |
| **EDUs Lost to Credits / Adjustments** | 0 | -18,489 | -18,489 |
| **Chargeable EDUs** | 47,241 | 27,335 | 74,735 |

**Source:** Compiled by FCS GROUP.
**Note**: Assumed 40% of Non-Residential EDUs lost to credits

The calculation of the maximum credit amount, 38% of the rate, is summarized in **Exhibit 4.5** below.

**Exhibit 4.5: Calculation of Maximum Credit hargeable EDU Calculation**

| | Base | Use | Total |
|---|---|---|---|
| **Revenue Requirement** | $1,300,604 | $644,454 | $1,945,058 |
| **÷ Chargeable EDUs** | 93,065 | 74,735 | |
| **Annual Rate Component** | $13.98 | $8.62 | $22.60 |
| **Percentage Maximum Credit** | | 38% | |

**Note**: % Maximum Credit = Use Rate Component ÷ Total Rate

It is proposed that the following refined credit policy be offered, applicable only to non-residential customers.

- 25 percent credit for qualifying on-site mitigation above City standards.
- 13 percent credit for approved participation in City-sponsored education.

## F. RATE SUMMARY

A summary of the rates for both scenarios, required and smoothed, is shown in **Exhibit 4.6**. Scenario II rates are higher in most years, but require fewer increases. Scenario I generally has lower rates, but requires annual rate increases to react to financial requirements. Either will achieve the City's desired targets for program cost recovery.

**Exhibit 4.6: Rate Comparison**

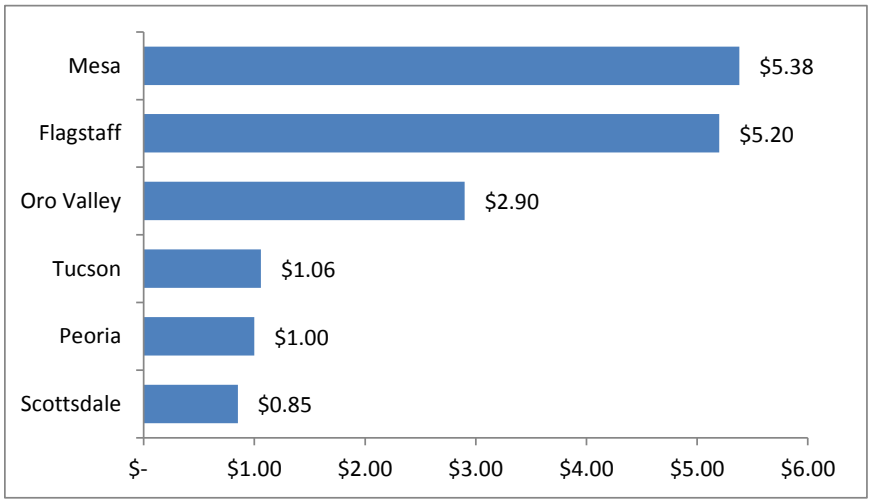
| Fiscal Year Ending 6/30: | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I - Required Increases | $2.00 | $2.00 | $2.00 | $2.14 | $2.41 | $2.68 | $2.71 | $2.74 | $2.77 | $2.81 | $2.88 |
| II - Smoothed Increases | $2.00 | $2.00 | $2.00 | $2.00 | $2.75 | $2.75 | $2.75 | $2.75 | $2.85 | $2.85 | $2.85 |

**Source:** FCS GROUP.

## G. RATE COMPARISONS

There are currently six Arizona cities that we know of that charge rates for stormwater. Three of these charge stormwater rates per account (Mesa, Scottsdale, and Peoria), two charge per impervious surface area (Oro Valley and Flagstaff), and one charges based on water meter size (Tucson). Rate comparisons for single-family customers in each of these cities are summarized in **Exhibit 4.7**. Although not technically a stormwater rate, Phoenix has an excise tax of $0.70 per month for all single-family residential accounts that is earmarked for stormwater.

**Exhibit 4.7: Rate Comparisons**



# APPENDIX A: CUSTOMER DATA WORK PLAN

# CITY OF SURPRISE, AZ
# STORMWATER UTILITY FORMATION

## CUSTOMER DATA COMPILATION

The following preliminary work plan may be used to compile the customer data needed to support the stormwater rate calculation and, ultimately, its billing.

### Proposed Approach

1. Decide upon a primary key providing the best linkage between existing utility billing records and the GIS database. What single identifier, unique to each customer, is in both datasets (i.e., property address, tax identification number)? These data points should be unique to each customer.
2. Segregate single-family residential (SFR) and non-SFR (all other) accounts in the selected billing list.

### Equivalent Service Unit Calculation

A sampling analysis is necessary to determine the average amount of impervious surface area on the City's single-family residential parcels, unless the City determines to use a standard estimate. This analysis will yield the value of an equivalent service unit (ESU), which will become the base unit for the City's stormwater utility fee.

1. Number single-family residential accounts sequentially in an unused field, starting with the number 1. For example, assuming there are 6,000 single family parcels, number these parcels 1 through 6,000 in their existing order, regardless of any other recorded numbering system, e.g., assessor parcels number or location identification number. These numbered parcels will make up the population from which the sample will be taken.
2. Using random numbers provided by FCS GROUP to identify parcels to be sampled, extract the following information from each sampled parcel and record it on the worksheet provided:
   - Sample number
   - Property address
   - Other common identifier (if applicable)
   - Number of dwelling units (if applicable – should be one per parcel)
   - Utility billing account number
3. Continue sampling and recording data until a sample of no fewer than 152 parcels has been compiled. Note: Appendix A details the methodology used to determine the recommended sample size.
4. Using the common parcel identifier and corresponding maps, example shown in Section 3, page 11, identify each sampled parcel on the system.
5. Measure impervious surface area on each of the sampled parcels. Record measured impervious surface area on worksheet. Note any anomalies or irregularities on the worksheet, identifying the parcel(s) concerned by the sample number or common identifier.
6. Deliver completed worksheets to FCS GROUP for statistical analysis.

## Non-Residential ESUs

1. Using the common parcel identifier and corresponding maps, example shown in Section 3, page11, identify each non-single family residential parcel on the system.
2. Measure impervious surface area on each non-single family residential parcel. Record measured impervious area on worksheet. Note any anomalies or irregularities on the worksheet, identifying the parcel(s) concerned by the common identifier.
3. Deliver completed worksheets to FCS GROUP for analysis.

Billing stormwater charges in the City of Surprise will present some unique billing issues. Most customers will likely receive an additional line item on their monthly utility statement to account for a new stormwater bill. There are two unique billing issues created in billing a monthly stormwater bill – single "master" accounts and "stormwater only" accounts.

It may be necessary to create a single "master" account to which multiple meters have been consolidated. This may become necessary when there is no easily known way for the utility to allocate impervious surface area among the various tenants. For example, without detailed lease agreements, it is impossible for the City to allocate parking spaces to individual tenants in a strip mall. It will therefore be necessary to charge a single master account for the entire parcel.

"Stormwater Only" accounts will be limited to new accounts created specifically for the stormwater utility. This will be necessary for properties where no utility service is currently being provided. For example, in most cases a parking lot will not receive other utility services. It will therefore be necessary to create a stormwater only account.

# APPENDIX A

## SAMPLE SIZE DETERMINATION

Recommended sample sizes were determined in the following manner.

For residential parcels, the sampling program is intended to verify the average amount of impervious area per dwelling unit in order to determine the value of an equivalent dwelling unit. In order to state with confidence that the sample is representative of the entire customer class, the sample size is determined by using a standard estimating technique. This technique is based on: (1) the maximum probable error B we are willing to tolerate, (2) the expected range of responses to the sample, and (3) a desired level of confidence.

A sampling error B of 100 square feet was chosen for all residential customer classes because this value yields a manageable sample size, while still providing a reasonably accurate point estimate for the mean.

Assuming we wish to be 90% confident that the sample mean represents the population mean + 100 square feet, the following formula may be used to determine sample size.

$$n = \frac{2.71(s)^2}{B^2}; \text{ where } B = 100, \text{ and } s = \frac{(\text{expected high - expected low})}{4}$$

If we assume that responses for single-family residences will range between 5,000 and 2,000 square feet of impervious area per unit, this formula yields a sample size of 152 developed single-family parcels.

# APPENDIX B: REVENUE REQUIREMENT – SCENARIO I

# City of Surprise
# Stormwater Utility Rate Study
## Summary

| Revenue Requirement | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Revenues** | | | | | | | | | | | |
| Rate Revenues Under Existing Rates | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| Non-Rate Revenues | 0 | 2,744 | 2,802 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 |
| **Total Revenues** | **$ 2,053,731** | **$ 2,062,455** | **$ 2,068,494** | **$ 2,075,037** | **$ 2,081,018** | **$ 2,086,998** | **$ 2,092,978** | **$ 2,098,958** | **$ 2,104,938** | **$ 2,110,918** | **$ 2,116,899** |
| **Expenses** | | | | | | | | | | | |
| Cash Operating Expenses | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 | $ 1,320,687 | $ 1,357,939 | $ 1,396,308 | $ 1,443,149 | $ 1,483,855 |
| Existing Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| Rate Funded Capital | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| Additions Required to Meet Operating Fund Balance | 156,774 | - | - | - | - | - | - | - | - | - | - |
| **Total Expenses** | **$ 1,110,485** | **$ 1,624,138** | **$ 1,945,058** | **$ 2,208,636** | **$ 2,492,727** | **$ 2,777,840** | **$ 2,820,687** | **$ 2,857,939** | **$ 2,896,308** | **$ 2,943,149** | **$ 2,983,855** |
| **Net Surplus (Deficiency)** | **$ 943,246** | **$ 438,317** | **$ 123,435** | **$ (133,599)** | **$ (411,709)** | **$ (690,842)** | **$ (727,709)** | **$ (758,981)** | **$ (791,370)** | **$ (832,230)** | **$ (866,956)** |
| Additions to Meet Coverage | - | - | - | - | - | - | - | - | - | - | - |
| **Total Surplus (Deficiency)** | **$ 943,246** | **$ 438,317** | **$ 123,435** | **$ (133,599)** | **$ (411,709)** | **$ (690,842)** | **$ (727,709)** | **$ (758,981)** | **$ (791,370)** | **$ (832,230)** | **$ (866,956)** |
| **% of Rate Revenue** | **0.00%** | **0.00%** | **0.00%** | **6.45%** | **19.82%** | **33.16%** | **34.83%** | **36.22%** | **37.66%** | **39.49%** | **41.02%** |
| ***Annual Rate Adjustment*** | **0.00%** | **0.00%** | **0.00%** | **6.45%** | **12.56%** | **11.13%** | **1.25%** | **1.03%** | **1.06%** | **1.33%** | **2.44%** |
| ***Cumulative Annual Rate Adjustment*** | **0.00%** | **0.00%** | **0.00%** | **6.45%** | **19.82%** | **33.16%** | **34.83%** | **36.22%** | **37.66%** | **39.49%** | **42.90%** |
| Rate Revenues After Rate Increase | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,205,270 | $ 2,489,361 | $ 2,774,474 | $ 2,817,321 | $ 2,854,573 | $ 2,892,942 | $ 2,939,783 | $ 2,980,489 |
| Additional Taxes from Rate Increase | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **Net Cash Flow After Rate Increase** | **1,100,020** | **438,317** | **123,435** | **-** | **0** | **0** | **-** | **0** | **-** | **-** | **-** |
| Coverage After Rate Increases | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** |
| Sample Residential Monthly Bill | **$ 2.00** | **$ 2.00** | **$ 2.00** | **$ 2.13** | **$ 2.40** | **$ 2.67** | **$ 2.70** | **$ 2.73** | **$ 2.76** | **$ 2.80** | **$ 2.87** |
| Monthly Average Increase ($) | $ 2.00 | $ - | $ - | $ 0.13 | $ 0.27 | $ 0.27 | $ 0.03 | $ 0.03 | $ 0.03 | $ 0.04 | $ 0.07 |

# City of Surprise
# Stormwater Utility Rate Study
## Summary

| Fund Balance | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SEWER OPERATIONS FUND** | | | | | | | | | | | |
| **Beginning Balance** | $ 0 | $ 274,355 | $ 280,232 | $ 336,592 | $ 336,592 | $ 336,592 | $ 336,592 | $ 336,592 | $ 336,592 | $ 336,592 | $ 336,592 |
| plus: Net Cash Flow after Rate Increase | 1,100,020 | 438,317 | 123,435 | - | 0 | 0 | - | 0 | - | - | - |
| less: Transfer of Surplus to Capital Fund | (825,665) | (432,440) | (67,075) | - | - | - | - | - | - | - | - |
| **Ending Balance** | **$ 274,355** | **$ 280,232** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** |
| *Target Balance* | *$ 274,355* | *$ 280,232* | *$ 336,592* | *$ 347,690* | *$ 357,497* | *$ 367,598* | *$ 379,924* | *$ 390,640* | *$ 401,678* | *$ 415,152* | *$ 426,862* |
| *Days* | *105* | *105* | *105* | *102* | *99* | *96* | *93* | *91* | *88* | *85* | *83* |
| **OPERATIONS FUND - CAPITAL PORTION** | | | | | | | | | | | |
| **Beginning Balance** | $ - | $ 825,665 | $ 1,277,800 | $ 1,364,095 | $ 1,403,638 | $ 1,645,233 | $ 1,564,437 | $ 1,681,026 | $ 1,658,300 | $ 1,487,379 | $ 1,807,525 |
| plus: Rate Funded Capital | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| plus: Transfers from Operating Fund | 825,665 | 432,440 | 67,075 | - | - | - | - | - | - | - | - |
| plus: Grants/ Donations/ CIAC | - | - | - | - | - | - | - | - | - | - | - |
| plus: Additional Proceeds (Costs) | - | - | - | - | - | - | - | - | - | - | - |
| plus: Transfers from SPA Funds for Deficit Repayment | - | - | - | - | - | - | - | - | - | - | - |
| plus: Net Debt Proceeds Available for Projects | - | - | - | - | - | - | - | - | - | - | - |
| plus: Interest Earnings | - | 8,257 | 12,778 | 13,641 | 14,036 | 16,452 | 15,644 | 16,810 | 16,583 | 14,874 | 18,075 |
| Total Funding Sources | **$ 825,665** | **$ 1,916,362** | **$ 2,132,653** | **$ 2,377,736** | **$ 2,667,674** | **$ 3,161,685** | **$ 3,080,082** | **$ 3,197,836** | **$ 3,174,883** | **$ 3,002,253** | **$ 3,325,601** |
| less: Capital Expenditures | - | (638,562) | (768,557) | (974,098) | (1,022,441) | (1,597,248) | (1,399,056) | (1,539,536) | (1,687,504) | (1,194,727) | (1,232,523) |
| less: Transfers to SPA Funds | - | - | - | - | - | - | - | - | - | - | - |
| **Ending Working Capital Balance** | **$ 825,665** | **$ 1,277,800** | **$ 1,364,095** | **$ 1,403,638** | **$ 1,645,233** | **$ 1,564,437** | **$ 1,681,026** | **$ 1,658,300** | **$ 1,487,379** | **$ 1,807,525** | **$ 2,093,078** |
| *Minimum Target Balance* | *$ 200,000* | *$ 212,771* | *$ 228,142* | *$ 247,624* | *$ 268,073* | *$ 300,018* | *$ 327,999* | *$ 358,790* | *$ 392,540* | *$ 416,435* | *$ 441,085* |
| **COMBINED BEGINNING BALANCE** | **$ 0** | **$ 1,100,020** | **$ 1,558,031** | **$ 1,700,687** | **$ 1,740,230** | **$ 1,981,825** | **$ 1,901,029** | **$ 2,017,618** | **$ 1,994,892** | **$ 1,823,971** | **$ 2,144,118** |
| **COMBINED ENDING BALANCE** | **$ 1,100,020** | **$ 1,558,031** | **$ 1,700,687** | **$ 1,740,230** | **$ 1,981,825** | **$ 1,901,029** | **$ 2,017,618** | **$ 1,994,892** | **$ 1,823,971** | **$ 2,144,118** | **$ 2,429,670** |

# City of Surprise
## Stormwater Utility Rate Study
### Assumptions

*July 2015 - June 2016*

| Economic & Financial Factors | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 General Cost Inflation | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| 2 Construction Cost Inflation | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% |
| 3 Labor Cost Inflation | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| 4 Benefit Cost Inflation | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| 5 Customer Growth | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.28% | 0.28% |
| 6 General Inflation plus Growth | 3.30% | 3.30% | 3.30% | 3.30% | 3.30% | 3.30% | 3.30% | 3.30% | 3.29% | 3.29% | 3.29% | 3.29% |
| 7 No Escalation | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 8 PILOT | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 9 Franchise Fee | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 10 Fuel Cost Escalation | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% |
| 11 [Extra] | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Fund Earnings | 0.50% | 0.75% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% |

| Accounting Assumptions | | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FISCAL POLICY RESTRICTIONS** | | | | | | | | | | | | | |
| Min. Op. Fund Balance (days of O&M expense) | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Max. Op. Fund Balance (days of O&M expense) | | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| Minimum Capital Fund Balance Target | | | | | | | | | | | | | |
| Select Minimum Capital Fund Balance Target | 1 | **Defined as % of Plant** | | | | | | | | | | | |
| **1** - Defined as % of Plant | | | | | | | | | | | | | |
| Plant-in-Service in 2015 | $ 10,000,000 | | | | | | | | | | | | |
| Minimum Capital Fund Balance - % of plant assets | | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% |
| **2** - Amount at Right ==> | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **RATE FUNDED SYSTEM REINVESTMENT** | | | | | | | | | | | | | |
| Select Reinvestment Funding Strategy | 3 | **User Input** | | | | | | | | | | | |
| **Amount of Annual Cash Funding from Rates** | | | | | | | | | | | | | |
| **1** - Equal to Annual Depreciation Expense | | $ - | $ - | $ 12,771 | $ 28,142 | $ 47,624 | $ 68,073 | $ 100,018 | $ 127,999 | $ 158,790 | $ 192,540 | $ 216,435 | $ 216,435 |
| **2** - Equal to Depreciation less Annual Debt Principal Payments | | - | - | 12,771 | 28,142 | 47,624 | 68,073 | 100,018 | 127,999 | 158,790 | 192,540 | 216,435 | 216,435 |
| **3** - Equal to Amount at Right ==> | | - | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| **4** - Do Not Fund Depreciation | | | | | | | | | | | | | |

| Capital Financing Assumptions | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

# City of Surprise
## Stormwater Utility Rate Study
### Assumptions

| | | July 2015 - June 2016 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FUNDING SOURCES** | | | | | | | | | | | | | |
| **Grants** | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **Additional Proceeds (Costs)** | | | | | | | | | | | | | |
| [Extra line] | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| [Extra line] | | - | - | - | - | - | - | - | - | - | - | - | - |
| [Extra line] | | - | - | - | - | - | - | - | - | - | - | - | - |
| [Extra line] | | - | - | - | - | - | - | - | - | - | - | - | - |
| [Extra line] | | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total Additional Proceeds** | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **REVENUE BONDS** | | | | | | | | | | | | | |
| Term (years) | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Interest Cost | | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% |
| Issuance Cost | | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% |
| Revenue Bond Coverage Requirement | 1.25 | | | | | | | | | | | | |
| **OTHER LOANS** | | | | | | | | | | | | | |
| Term (years) | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Interest Cost | | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% |
| **OTHER LOW COST LOANS** | | | | | | | | | | | | | |
| Term (years) | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Interest Cost | | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% |
| Issuance Cost | | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

| Other Assumptions | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Customer Growth** | | | | | | | | | | | | | | | |
| Projected New Equivalent Dwelling Units (EDUs) | | 100.00% | of Original Growth Projections | | | | | | *Based on previous 5 year average growth projections* | | | | | | |
| SPA 1 | | | - | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| SPA 2 | | | - | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| SPA 3 | | | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **Total New EDUs** | | | **-** | **271** | **271** | **271** | **271** | **271** | **271** | **271** | **271** | **271** | **271** | **271** | **271** |
| Cumulative EDUs | | 92,526 | 92,526 | 92,797 | 93,068 | 93,339 | 93,610 | 93,881 | 94,152 | 94,423 | 94,694 | 94,965 | 95,236 | 95,507 | 95,778 |
| EDU Growth Rate | | | 0.00% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.28% | 0.28% |
| **PILOT Tax Components** | | | | | | | | | | | | | | | |
| Capital Assets | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ARS Assessed Valuation Annual Year Percentage | | 19.50% | 19.00% | 18.50% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% |
| ARS Assessed Valuation Fiscal Year Percentage | | 19.75% | 19.25% | 18.75% | 18.25% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% |
| Primary Property Tax Rate | | 0.7383% | 0.7783% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% |
| Payment in Lieu of Taxes | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |

# City of Surprise
## Stormwater Utility Rate Study
### Operating Revenue and Expenditure Forecast

| | | | | Actual | Budget | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Revenues** | | | FORECAST BASIS | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
| | **Rate Revenues** | | | | | | | | | | | | | | | |
| | Rate Revenues | 5 | Customer Growth | $ - | $ 0 | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| | [Extra] | 7 | No Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Total Rate Revenue** | | | **$ -** | **$ 0** | **$ 2,053,731** | **$ 2,059,711** | **$ 2,065,691** | **$ 2,071,672** | **$ 2,077,652** | **$ 2,083,632** | **$ 2,089,612** | **$ 2,095,592** | **$ 2,101,572** | **$ 2,107,553** | **$ 2,113,533** |
| | **Non-Rate Revenues** | | | | | | | | | | | | | | | |
| 31813 | Interest Income | 7 | No Escalation | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 31543 | Federal Grant Revenue - SPA 1 | 7 | No Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31432 | Line Extension Fees | 7 | No Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31461 | Revenue Recovery-Utility Bill | 7 | No Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31816 | Unrealized Gain/Loss | 7 | No Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | [Extra] | 7 | No Escalation | - | 600,470 | - | - | - | - | - | - | - | - | - | - | - |
| | **Total Non-Rate Revenues** | | | **$ -** | **$ 600,470** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| **TOTAL REVENUES** | | | | **$ -** | **$ 600,470** | **$ 2,053,731** | **$ 2,059,711** | **$ 2,065,691** | **$ 2,071,672** | **$ 2,077,652** | **$ 2,083,632** | **$ 2,089,612** | **$ 2,095,592** | **$ 2,101,572** | **$ 2,107,553** | **$ 2,113,533** |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Expenses** | | | FORECAST BASIS | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
| **544** | **Stormwater Streets Fund** | | | | | | | | | | | | | | | |
| **516** | **ROW** | | | | | | | | | | | | | | | |
| | **Personnel/Salaries** | | | | | | | | | | | | | | | |
| 36111 | Full Time Salaries | 3 | Labor Cost Inflation | 24,479 | 28,640 | 29,499 | 30,384 | 31,296 | 32,235 | 33,202 | 34,198 | 35,224 | 36,280 | 37,369 | 38,490 | 39,644 |
| 36113 | Overtime Compensation | 3 | Labor Cost Inflation | 368 | 700 | 721 | 743 | 765 | 788 | 811 | 836 | 861 | 887 | 913 | 941 | 969 |
| 36115 | Holidays | 4 | Benefit Cost Inflation | 1,338 | - | - | - | - | - | - | - | - | - | - | - | - |
| 36116 | Paid Time Off | 4 | Benefit Cost Inflation | 2,730 | - | - | - | - | - | - | - | - | - | - | - | - |
| 36151 | Stipend | 4 | Benefit Cost Inflation | 46 | 50 | 52 | 53 | 55 | 56 | 58 | 60 | 61 | 63 | 65 | 67 | 69 |
| 36211 | FICA | 4 | Benefit Cost Inflation | 2,081 | 2,250 | 2,318 | 2,387 | 2,459 | 2,532 | 2,608 | 2,687 | 2,767 | 2,850 | 2,936 | 3,024 | 3,115 |
| 36231 | Medical | 4 | Benefit Cost Inflation | 6,743 | 7,030 | 7,241 | 7,458 | 7,682 | 7,912 | 8,150 | 8,394 | 8,646 | 8,905 | 9,173 | 9,448 | 9,731 |
| 36232 | Dental | 4 | Benefit Cost Inflation | 330 | 330 | 340 | 350 | 361 | 371 | 383 | 394 | 406 | 418 | 431 | 443 | 457 |
| 36233 | Vision | 4 | Benefit Cost Inflation | 54 | 50 | 52 | 53 | 55 | 56 | 58 | 60 | 61 | 63 | 65 | 67 | 69 |
| 36234 | Life | 4 | Benefit Cost Inflation | 122 | 130 | 134 | 138 | 142 | 146 | 151 | 155 | 160 | 165 | 170 | 175 | 180 |
| 36252 | AZ State Retirement | 4 | Benefit Cost Inflation | 3,342 | 3,410 | 3,512 | 3,618 | 3,726 | 3,838 | 3,953 | 4,072 | 4,194 | 4,320 | 4,449 | 4,583 | 4,720 |
| 36278 | Workers Compensation | 4 | Benefit Cost Inflation | 1,790 | 1,730 | 1,782 | 1,835 | 1,890 | 1,947 | 2,006 | 2,066 | 2,128 | 2,192 | 2,257 | 2,325 | 2,395 |
| | **Commodities/Supplies** | | | | | | | | | | | | | | | |
| 37111 | Office Supplies | 1 | General Cost Inflation | 6 | 20 | 21 | 21 | 22 | 23 | 23 | 24 | 25 | 25 | 26 | 27 | 28 |
| 37131 | Clothing & Uniforms | 1 | General Cost Inflation | 74 | 80 | 82 | 85 | 87 | 90 | 93 | 96 | 98 | 101 | 104 | 108 | 111 |
| 37142 | Phone Supplies | 1 | General Cost Inflation | 89 | - | - | - | - | - | - | - | - | - | - | - | - |
| 37161 | Operational Supplies | 1 | General Cost Inflation | 714 | 350 | 361 | 371 | 382 | 394 | 406 | 418 | 430 | 443 | 457 | 470 | 484 |
| 37165 | Mach. & Equipment <$10,000 | 1 | General Cost Inflation | 1,155 | 1,550 | 1,597 | 1,644 | 1,694 | 1,745 | 1,797 | 1,851 | 1,906 | 1,963 | 2,022 | 2,083 | 2,146 |
| 37193 | Safety & First Aid Supplies | 1 | General Cost Inflation | 371 | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 | 692 |
| 37211 | Gas & Fuel | 1 | General Cost Inflation | 5,193 | 5,200 | 5,356 | 5,517 | 5,682 | 5,853 | 6,028 | 6,209 | 6,395 | 6,587 | 6,785 | 6,988 | 7,198 |
| 37212 | Auto Parts & Lubricants | 1 | General Cost Inflation | 1,673 | 5,160 | 5,315 | 5,474 | 5,638 | 5,808 | 5,982 | 6,161 | 6,346 | 6,537 | 6,733 | 6,935 | 7,143 |
| 37223 | Agricultural/Grounds Supplies | 1 | General Cost Inflation | 1,434 | 1,000 | 1,030 | 1,061 | 1,093 | 1,126 | 1,159 | 1,194 | 1,230 | 1,267 | 1,305 | 1,344 | 1,384 |
| 37233 | Street Repair Supplies | 1 | General Cost Inflation | 199 | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Contractual Services** | | | | | | | | | | | | | | | |
| 38162 | Landscape Services | 1 | General Cost Inflation | 29,078 | 36,695 | 37,796 | 38,930 | 40,098 | 41,301 | 42,540 | 43,816 | 45,130 | 46,484 | 47,879 | 49,315 | 50,794 |
| 38199 | Other Prof/Tech Services | 1 | General Cost Inflation | 127 | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 | 692 |
| 38211 | Water | 1 | General Cost Inflation | 9,699 | 9,920 | 10,218 | 10,524 | 10,840 | 11,165 | 11,500 | 11,845 | 12,200 | 12,566 | 12,943 | 13,332 | 13,732 |
| 38212 | Electricity | 1 | General Cost Inflation | 700 | 720 | 742 | 764 | 787 | 810 | 835 | 860 | 886 | 912 | 939 | 968 | 997 |
| 38216 | Sanitary/Landfill | 1 | General Cost Inflation | 676 | 1,500 | 1,545 | 1,591 | 1,639 | 1,688 | 1,739 | 1,791 | 1,845 | 1,900 | 1,957 | 2,016 | 2,076 |
| 38221 | Cell Phone/Pagers | 1 | General Cost Inflation | 252 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38324 | Machinery & Equip. Maint. | 1 | General Cost Inflation | 337 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38331 | Vehicle Maintenance | 1 | General Cost Inflation | 3,334 | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 | 3,360 | 3,461 |
| 38372 | Pest Control Services | 1 | General Cost Inflation | 124 | 120 | 124 | 127 | 131 | 135 | 139 | 143 | 148 | 152 | 157 | 161 | 166 |
| 38381 | Grounds Maintenance | 1 | General Cost Inflation | 6,984 | 6,000 | 6,180 | 6,365 | 6,556 | 6,753 | 6,956 | 7,164 | 7,379 | 7,601 | 7,829 | 8,063 | 8,305 |
| 38591 | Other Rental/Leases | 1 | General Cost Inflation | 290 | 300 | 309 | 318 | 328 | 338 | 348 | 358 | 369 | 380 | 391 | 403 | 415 |
| 38922 | Travel & Training | 1 | General Cost Inflation | 41 | 130 | 134 | 138 | 142 | 146 | 151 | 155 | 160 | 165 | 170 | 175 | 180 |
| 38924 | Dues & Memberships | 1 | General Cost Inflation | 90 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38927 | EE Certification & Licensing | 1 | General Cost Inflation | 138 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38991 | Uniform/Laundry Services | 1 | General Cost Inflation | 113 | 200 | 206 | 212 | 219 | 225 | 232 | 239 | 246 | 253 | 261 | 269 | 277 |
| **517** | **Street Sweeping** | | | | | | | | | | | | | | | |
| | **Personnel/Salaries** | | | | | | | | | | | | | | | |
| 36111 | Full Time Salaries | 3 | Labor Cost Inflation | 113,701 | 167,130 | 172,144 | 177,308 | 182,627 | 188,106 | 193,749 | 199,562 | 205,549 | 211,715 | 218,067 | 224,609 | 231,347 |
| 36113 | Overtime Compensation | 3 | Labor Cost Inflation | 6,164 | 4,545 | 4,681 | 4,822 | 4,966 | 5,115 | 5,269 | 5,427 | 5,590 | 5,757 | 5,930 | 6,108 | 6,291 |
| 36115 | Holidays | 4 | Benefit Cost Inflation | 5,883 | - | - | - | - | - | - | - | - | - | - | - | - |
| 36116 | Paid Time Off | 4 | Benefit Cost Inflation | 11,464 | - | - | - | - | - | - | - | - | - | - | - | - |
| 36151 | Stipend | 4 | Benefit Cost Inflation | - | 315 | 324 | 334 | 344 | 355 | 365 | 376 | 387 | 399 | 411 | 423 | 436 |
| 36211 | FICA | 4 | Benefit Cost Inflation | 9,872 | 13,140 | 13,534 | 13,940 | 14,358 | 14,789 | 15,233 | 15,690 | 16,161 | 16,645 | 17,145 | 17,659 | 18,189 |
| 36231 | Medical | 4 | Benefit Cost Inflation | 27,146 | 35,730 | 36,802 | 37,906 | 39,043 | 40,214 | 41,421 | 42,663 | 43,943 | 45,262 | 46,620 | 48,018 | 49,459 |
| 36232 | Dental | 4 | Benefit Cost Inflation | 2,151 | 2,610 | 2,688 | 2,769 | 2,852 | 2,938 | 3,026 | 3,116 | 3,210 | 3,306 | 3,405 | 3,508 | 3,613 |
| 36233 | Vision | 4 | Benefit Cost Inflation | 326 | 360 | 371 | 382 | 393 | 405 | 417 | 430 | 443 | 456 | 470 | 484 | 498 |

# City of Surprise
## Stormwater Utility Rate Study
### Operating Revenue and Expenditure Forecast

| | | | | Actual | Budget | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36234 | Life | 4 | Benefit Cost Inflation | 562 | 720 | 742 | 764 | 787 | 810 | 835 | 860 | 886 | 912 | 939 | 968 | 997 |
| 36252 | AZ State Retirement | 4 | Benefit Cost Inflation | 15,903 | 19,935 | 20,533 | 21,149 | 21,784 | 22,437 | 23,110 | 23,803 | 24,518 | 25,253 | 26,011 | 26,791 | 27,595 |
| 36278 | Workers Compensation | 4 | Benefit Cost Inflation | 9,450 | 9,270 | 9,548 | 9,835 | 10,130 | 10,433 | 10,746 | 11,069 | 11,401 | 11,743 | 12,095 | 12,458 | 12,832 |
| | **Commodities/Supplies** | | | | | | | | | | | | | | | |
| 37131 | Clothing & Uniforms | 1 | General Cost Inflation | 322 | 315 | 324 | 334 | 344 | 355 | 365 | 376 | 387 | 399 | 411 | 423 | 436 |
| 37142 | Phone Supplies | 1 | General Cost Inflation | 351 | - | - | - | - | - | - | - | - | - | - | - | - |
| 37161 | Operational Supplies | 1 | General Cost Inflation | 498 | - | - | - | - | - | - | - | - | - | - | - | - |
| 37165 | Mach. & Equipment <$10,000 | 1 | General Cost Inflation | 13,270 | 12,600 | 12,978 | 13,367 | 13,768 | 14,181 | 14,607 | 15,045 | 15,496 | 15,961 | 16,440 | 16,933 | 17,441 |
| 37193 | Safety & First Aid Supplies | 1 | General Cost Inflation | 557 | 855 | 881 | 907 | 934 | 962 | 991 | 1,021 | 1,052 | 1,083 | 1,116 | 1,149 | 1,184 |
| 37211 | Gas & Fuel | 1 | General Cost Inflation | 30,734 | 29,385 | 30,267 | 31,175 | 32,110 | 33,073 | 34,065 | 35,087 | 36,140 | 37,224 | 38,341 | 39,491 | 40,676 |
| 37212 | Auto Parts & Lubricants | 1 | General Cost Inflation | 21,394 | 24,165 | 24,890 | 25,637 | 26,406 | 27,198 | 28,014 | 28,854 | 29,720 | 30,611 | 31,530 | 32,476 | 33,450 |
| 37232 | Chemical Supplies | 1 | General Cost Inflation | 917 | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Contractual Services** | | | | | | | | | | | | | | | |
| 38211 | Water | 1 | General Cost Inflation | 4,059 | 4,815 | 4,959 | 5,108 | 5,261 | 5,419 | 5,582 | 5,749 | 5,922 | 6,099 | 6,282 | 6,471 | 6,665 |
| 38216 | Sanitary/Landfill | 1 | General Cost Inflation | 29,138 | 20,250 | 20,858 | 21,483 | 22,128 | 22,792 | 23,475 | 24,180 | 24,905 | 25,652 | 26,422 | 27,214 | 28,031 |
| 38217 | Postage & Mailings | 1 | General Cost Inflation | 323 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38324 | Machinery & Equip. Maint. | 1 | General Cost Inflation | 113 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38331 | Vehicle Maintenance | 1 | General Cost Inflation | 9,927 | 5,040 | 5,191 | 5,347 | 5,507 | 5,673 | 5,843 | 6,018 | 6,199 | 6,385 | 6,576 | 6,773 | 6,977 |
| 38922 | Travel & Training | 1 | General Cost Inflation | 27 | 135 | 139 | 143 | 148 | 152 | 157 | 161 | 166 | 171 | 176 | 181 | 187 |
| 38924 | Dues & Memberships | 1 | General Cost Inflation | 405 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38951 | Printing | 1 | General Cost Inflation | 26 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38991 | Uniform/Laundry Services | 1 | General Cost Inflation | 457 | 990 | 1,020 | 1,050 | 1,082 | 1,114 | 1,148 | 1,182 | 1,218 | 1,254 | 1,292 | 1,330 | 1,370 |
| **643** | **Stormwater Sewer Fund** | | | | | | | | | | | | | | | |
| **601** | **Collections WW** | | | | | | | | | | | | | | | |
| | **Personnel/Salaries** | | | | | | | | | | | | | | | |
| 36111 | Full Time Salaries | 3 | Labor Cost Inflation | - | 75,100 | 77,353 | 79,674 | 82,064 | 84,526 | 87,061 | 89,673 | 92,364 | 95,134 | 97,988 | 100,928 | 103,956 |
| 36151 | Stipend | 4 | Benefit Cost Inflation | - | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 | 692 |
| 36211 | FICA | 4 | Benefit Cost Inflation | - | 4,700 | 4,841 | 4,986 | 5,136 | 5,290 | 5,449 | 5,612 | 5,780 | 5,954 | 6,132 | 6,316 | 6,506 |
| 36211 | FICA | 4 | Benefit Cost Inflation | - | 1,100 | 1,133 | 1,167 | 1,202 | 1,238 | 1,275 | 1,313 | 1,353 | 1,393 | 1,435 | 1,478 | 1,523 |
| 36231 | Medical | 4 | Benefit Cost Inflation | - | 11,000 | 11,330 | 11,670 | 12,020 | 12,381 | 12,752 | 13,135 | 13,529 | 13,934 | 14,353 | 14,783 | 15,227 |
| 36232 | Dental | 4 | Benefit Cost Inflation | - | 600 | 618 | 637 | 656 | 675 | 696 | 716 | 738 | 760 | 783 | 806 | 831 |
| 36233 | Vision | 4 | Benefit Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| 36234 | Life | 4 | Benefit Cost Inflation | - | 300 | 309 | 318 | 328 | 338 | 348 | 358 | 369 | 380 | 391 | 403 | 415 |
| 36252 | AZ State Retirement | 4 | Benefit Cost Inflation | - | 8,800 | 9,064 | 9,336 | 9,616 | 9,904 | 10,202 | 10,508 | 10,823 | 11,148 | 11,482 | 11,826 | 12,181 |
| 36278 | Workers Compensation | 4 | Benefit Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| | **Commodities/Supplies** | | | | | | | | | | | | | | | |
| 37111 | Office Supplies | 1 | General Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| 37114 | Books & Subscriptions | 1 | General Cost Inflation | - | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 | 692 |
| 37131 | Clothing & Uniforms | 1 | General Cost Inflation | - | 200 | 206 | 212 | 219 | 225 | 232 | 239 | 246 | 253 | 261 | 269 | 277 |
| 37193 | Safety & First Aid Supplies | 1 | General Cost Inflation | - | 300 | 309 | 318 | 328 | 338 | 348 | 358 | 369 | 380 | 391 | 403 | 415 |
| | **Contractual Services** | | | | | | | | | | | | | | | |
| 38922 | Travel & Training | 1 | General Cost Inflation | - | 3,100 | 3,193 | 3,289 | 3,387 | 3,489 | 3,594 | 3,702 | 3,813 | 3,927 | 4,045 | 4,166 | 4,291 |
| 38924 | Dues & Memberships | 1 | General Cost Inflation | - | 2,800 | 2,884 | 2,971 | 3,060 | 3,151 | 3,246 | 3,343 | 3,444 | 3,547 | 3,653 | 3,763 | 3,876 |
| 38925 | Federal Mileage Allowance | 1 | General Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| **645** | **Stormwater General Fund** | | | | | | | | | | | | | | | |
| **112** | **General Operation** | | | | | | | | | | | | | | | |
| | **Commodities/Supplies** | | | | | | | | | | | | | | | |
| 37111 | Office Supplies | 1 | General Cost Inflation | 80 | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| 37112 | Computer Supplies | 1 | General Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| 37114 | Books & Subscriptions | 1 | General Cost Inflation | 111 | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 | 692 |
| 37131 | Clothing & Uniforms | 1 | General Cost Inflation | 217 | - | - | - | - | - | - | - | - | - | - | - | - |
| 37165 | Mach. & Equipment <$10,000 | 1 | General Cost Inflation | 19 | - | - | - | - | - | - | - | - | - | - | - | - |
| 37194 | Community Relations Supplies | 1 | General Cost Inflation | 660 | 1,200 | 1,236 | 1,273 | 1,311 | 1,351 | 1,391 | 1,433 | 1,476 | 1,520 | 1,566 | 1,613 | 1,661 |
| 37211 | Gas & Fuel | 1 | General Cost Inflation | 549 | 600 | 618 | 637 | 656 | 675 | 696 | 716 | 738 | 760 | 783 | 806 | 831 |
| 37212 | Auto Parts & Lubricants | 1 | General Cost Inflation | 30 | 200 | 206 | 212 | 219 | 225 | 232 | 239 | 246 | 253 | 261 | 269 | 277 |
| 37997 | Education & Training Supplies | 1 | General Cost Inflation | 151 | 200 | 206 | 212 | 219 | 225 | 232 | 239 | 246 | 253 | 261 | 269 | 277 |
| | **Contractual Services** | | | | | | | | | | | | | | | |
| 38124 | Audit Services | 1 | General Cost Inflation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 38128 | Recording, License & Permit Fees | 1 | General Cost Inflation | 11,900 | 14,000 | 14,420 | 14,853 | 15,298 | 15,757 | 16,230 | 16,717 | 17,218 | 17,735 | 18,267 | 18,815 | 19,379 |
| 38199 | Other Prof/Tech Services | 1 | General Cost Inflation | 10,720 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38217 | Postage & Mailings | 1 | General Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| 38912 | Risk Insurance Premium | 1 | General Cost Inflation | 917 | 1,000 | 1,030 | 1,061 | 1,093 | 1,126 | 1,159 | 1,194 | 1,230 | 1,267 | 1,305 | 1,344 | 1,384 |
| 38922 | Travel & Training | 1 | General Cost Inflation | 95 | 1,400 | 1,442 | 1,485 | 1,530 | 1,576 | 1,623 | 1,672 | 1,722 | 1,773 | 1,827 | 1,881 | 1,938 |
| 38924 | Dues & Memberships | 1 | General Cost Inflation | 2,750 | 2,600 | 2,678 | 2,758 | 2,841 | 2,926 | 3,014 | 3,105 | 3,198 | 3,294 | 3,392 | 3,494 | 3,599 |
| 38951 | Printing | 1 | General Cost Inflation | 831 | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Future Operational Needs** | | | | | | | | | | | | | | | |
| 22531-64 | Wastewater Manager | 1 | General Cost Inflation | - | - | 33,424 | 34,426 | 35,459 | 36,523 | 37,618 | 38,747 | 39,909 | 41,107 | 42,340 | 43,610 | 44,918 |
| 21111-54 | Public Works Director | 1 | General Cost Inflation | - | - | 19,271 | 19,849 | 20,445 | 21,058 | 21,690 | 22,341 | 23,011 | 23,701 | 24,412 | 25,145 | 25,899 |
| 22531-64 | Assistant Director Utilities | 1 | General Cost Inflation | - | - | 32,692 | 33,673 | 34,683 | 35,724 | 36,795 | 37,899 | 39,036 | 40,207 | 41,414 | 42,656 | 43,936 |
| 21111-54 | Business Manager | 1 | General Cost Inflation | - | - | 7,220 | 7,437 | 7,660 | 7,890 | 8,127 | 8,370 | 8,621 | 8,880 | 9,146 | 9,421 | 9,703 |

# City of Surprise
## Stormwater Utility Rate Study
### Operating Revenue and Expenditure Forecast

| | | | | Actual | Budget | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21111-54 | Administrative Technician - Business Support | 1 | General Cost Inflation | - | - | 3,394 | 3,496 | 3,601 | 3,709 | 3,820 | 3,934 | 4,052 | 4,174 | 4,299 | 4,428 | 4,561 |
| 21111-54 | Sr. Financial Analyst | 1 | General Cost Inflation | - | - | 4,362 | 4,493 | 4,628 | 4,767 | 4,910 | 5,057 | 5,209 | 5,365 | 5,526 | 5,691 | 5,862 |
| 21111-54 | Business Analyst | 1 | General Cost Inflation | - | - | 5,614 | 5,782 | 5,955 | 6,134 | 6,318 | 6,508 | 6,703 | 6,904 | 7,111 | 7,324 | 7,544 |
| | **Indirect Cost allocation Citywide Staff** | 7 | No Escalation | - | - | 66,800 | 66,800 | 66,800 | 72,280 | 72,280 | 72,280 | 78,960 | 78,960 | 78,960 | 86,280 | 86,280 |
| | **Franchise Fee** | | *Calculated* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Payments in lieu of property tax (PILOT)** | | *Calculated* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22531-64 | Collections & Stormwater Supervisor | 1 | General Cost Inflation | - | - | 49,700 | 51,191 | 52,727 | 54,309 | 55,938 | 57,616 | 59,344 | 61,125 | 62,958 | 64,847 | 66,793 |
| 22531-64 | Stormwater Operator | 1 | General Cost Inflation | - | - | - | - | 84,700 | 87,241 | 89,858 | 92,554 | 95,331 | 98,191 | 101,136 | 104,170 | 107,295 |
| 22531-64 | Stormwater Inspector/Code Compliance | 1 | General Cost Inflation | - | - | - | - | 84,000 | 86,520 | 89,116 | 91,789 | 94,543 | 97,379 | 100,300 | 103,309 | 106,409 |
| 22531-64 | Maint of City owned drywells (3-5/yr) | 1 | General Cost Inflation | - | - | 25,750 | 26,523 | 27,318 | 28,138 | 28,982 | 29,851 | 30,747 | 31,669 | 32,619 | 33,598 | 34,606 |
| 37131 | Uniform Purchase | 1 | General Cost Inflation | - | - | 400 | 412 | 424 | 437 | 450 | 464 | 478 | 492 | 507 | 522 | 538 |
| 37161 | Operational Supplies | 1 | General Cost Inflation | - | - | 5,000 | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 | 5,970 | 6,149 | 6,334 | 6,524 | 6,720 |
| 37162 | Furniture, Fixtures, and Equipment (computers one- | 1 | General Cost Inflation | - | - | 6,000 | - | - | - | - | - | - | - | - | - | - |
| 37165 | Operational Equipment, Tools, and Parts | 1 | General Cost Inflation | - | - | 5,000 | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 | 5,970 | 6,149 | 6,334 | 6,524 | 6,720 |
| 37193 | Safety & First Aid Supplies | 1 | General Cost Inflation | - | - | 2,000 | 2,060 | 2,122 | 2,185 | 2,251 | 2,319 | 2,388 | 2,460 | 2,534 | 2,610 | 2,688 |
| 37211 | Gas & Fuel | 1 | General Cost Inflation | - | - | 6,000 | 6,180 | 6,365 | 6,556 | 6,753 | 6,956 | 7,164 | 7,379 | 7,601 | 7,829 | 8,063 |
| 37212 | Auto Parts & Lubricants | 1 | General Cost Inflation | - | - | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 | 3,360 |
| 37998 | Photography Supplies | 1 | General Cost Inflation | - | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 |
| 38199 | Professional & Outside Services | 1 | General Cost Inflation | - | - | 10,000 | 10,300 | 10,609 | 10,927 | 11,255 | 11,593 | 11,941 | 12,299 | 12,668 | 13,048 | 13,439 |
| 38216 | Sanitary/Landfill | 1 | General Cost Inflation | - | - | 5,000 | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 | 5,970 | 6,149 | 6,334 | 6,524 | 6,720 |
| 38221 | Cell Phone/Pagers | 1 | General Cost Inflation | - | - | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 |
| 38324 | Machinery & Equipment Maintenance | 1 | General Cost Inflation | - | - | 5,000 | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 | 5,970 | 6,149 | 6,334 | 6,524 | 6,720 |
| 38331 | Vehicle Maintenance | 1 | General Cost Inflation | - | - | 3,500 | 3,605 | 3,713 | 3,825 | 3,939 | 4,057 | 4,179 | 4,305 | 4,434 | 4,567 | 4,704 |
| 38351 | Wells/Sewer/Lines/Etc. | 1 | General Cost Inflation | - | - | 30,000 | 30,900 | 31,827 | 32,782 | 33,765 | 34,778 | 35,822 | 36,896 | 38,003 | 39,143 | 40,317 |
| 38521 | Equipment Rental | 1 | General Cost Inflation | - | - | 1,000 | 1,030 | 1,061 | 1,093 | 1,126 | 1,159 | 1,194 | 1,230 | 1,267 | 1,305 | 1,344 |
| 38922 | Travel & Training | 1 | General Cost Inflation | - | - | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 | 3,360 |
| 38991 | Uniform/Laundry Services | 1 | General Cost Inflation | - | - | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 | 3,360 |
| | **Other** | | | | | | | | | | | | | | | |
| | Add'l O&M from CIP | | *From CIP* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total Cash O&M Expenditures** | | | | **$ 450,487** | **$ 600,470** | **$ 953,711** | **$ 974,138** | **$ 1,170,058** | **$ 1,208,636** | **$ 1,242,727** | **$ 1,277,840** | **$ 1,320,687** | **$ 1,357,939** | **$ 1,396,308** | **$ 1,443,149** | **$ 1,483,855** |
| Depreciation Expense in FY2013 | | | $ - | | | | | | | | | | | | | |
| | Depreciation Expense | | Last year's plus annual add'l from CIP | $ - | $ - | $ - | $ 12,771 | $ 28,142 | $ 47,624 | $ 68,073 | $ 100,018 | $ 127,999 | $ 158,790 | $ 192,540 | $ 216,435 | $ 216,435 |
| | | | debt principal payments | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | | | System Reinvestment Funding | $ - | $ - | $ - | $ 12,771 | $ 28,142 | $ 47,624 | $ 68,073 | $ 100,018 | $ 127,999 | $ 158,790 | $ 192,540 | $ 216,435 | $ 216,435 |
| **TOTAL EXPENSES** | | | | **$ 450,487** | **$ 600,470** | **$ 953,711** | **$ 986,909** | **$ 1,198,201** | **$ 1,256,260** | **$ 1,310,800** | **$ 1,377,858** | **$ 1,448,686** | **$ 1,516,729** | **$ 1,588,848** | **$ 1,659,583** | **$ 1,700,289** |
| | | | *Capital Outlays* | $ 19 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |

# City of Surprise
## Stormwater Utility Rate Study
### Capital Improvement Program

| Project Costs and O&M Impacts in Year: | FY 2016 |
|---|---|

| No | Description | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Fund 21112** | | | | | | | | | | | | |
| 2 | Martin Acres Flood Control | $ - | | | | | | | | | | | |
| 3 | 107th & Union Hills Drainage | - | | | | | | | | | | | |
| 4 | Elm Street & Nash OTS Drainage Improvements | | | | | | | | | | | | |
| 5 | Greasewood Street & Lizard Acres Wash OTS | | | 250,000 | | | | | | | | | |
| 6 | Paradise Lane & El Mirage Rd OTS Drainage | | | 250,000 | 650,000 | | | | | | | | |
| 7 | Santa Fe Drive OTS Drainage Improvements | | | | | 350,000 | | | | | | | |
| 8 | Greenway Rd OTS Drainage Improvements | | | | | 300,000 | | | | | | | |
| 9 | Sections 10 & 11 Drainage & Roadway Improvements | | | | | 150,000 | 350,000 | 250,000 | 250,000 | 250,000 | 250,000 | | |
| 10 | **Additional Projects** | | | | | | | | | | | | |
| 11 | Cactus & Reems | | | | | 50,000 | 250,000 | 250,000 | | | | | |
| 12 | Bell Rd (EB)-Sarival to Reems | | | | | | | | | | | | |
| 13 | Peoria & Litchfield | | | | | 10,000 | 50,000 | 50,000 | | | | | |
| 14 | Peoria & Sarival | | | | | | 25,000 | 125,000 | 125,000 | | | | |
| 15 | Greenway-Litchfield To Bullard | | | | | | 25,000 | 125,000 | 125,000 | | | | |
| 16 | WB Waddell-BT Cotton & 175TH | | | | | | 25,000 | 125,000 | 125,000 | | | | |
| 17 | Cactus & 155th Ave | | | | | | | | | | | | |
| 18 | Cotton Ln-BT Peoria & Greenway | | | | | | 150,000 | 400,000 | 500,000 | 750,000 | 500,000 | 500,000 | 500,000 |
| 19 | Laural Lane & Litchfield Rd | | | | | | | | | | | | |
| 20 | Jerry St & Ironwood | | | | | | | | | 200,000 | 400,000 | | |
| 21 | 211th & Deer Valley | | | | | | | | | | 25,000 | 125,000 | 125,000 |
| 22 | Pinnacle Peak-W of Citrus | | | | | | | | | | 25,000 | 125,000 | 125,000 |
| 23 | 219th & Pinnacle Peak | | | | | | | | | | 25,000 | 125,000 | 125,000 |
| 24 | 183rd & Happy Valley | | | | | | | | | | | | |
| 25 | Enoch-West OF Citrus | | | | | | | | | | | | |
| 26 | NW Cor Peoria/Greer Ranch Pkwy | | | | | | | | | | | | |
| 27 | Cactus Rd between Litchfield and Bullard | | | | | | | | | | | | |
| 28 | Deer Valley Road SPA3 Interceptor Sewer | | | | | | | | | | | | |
| 29 | Acoma & Cotton Lane | | | | | | | | | | | | |
| 30 | Norwich - Citrus to Grand | | | | | | | | | | | | |
| 31 | 152nd @ Acoma | | | | | | | | | | | | |
| 32 | Happy Valley 1/4 mile west of Citrus | | | | | | | | | | | | |
| 33 | Retention Basin south of Ocotillo, East of Litchfield | | | | | | | | | | | | |
| 34 | SEC Litchfield/Greenway | | | 50,000 | 50,000 | | | | | | | | |
| 35 | Autoshow and Cactus | | | | | | | | | | | | |
| 36 | Heritage Park in Marley Park | | | | | | | | | | 50,000 | | |
| 37 | Auto Show Dr-BT Waddell & Cactus | | | | | | | | | | | | |
| 38 | CACTUS & L303 | | | | | | | | | | | | |
| 39 | Cactus and Citrus | | | 15,000 | | | | | | | | | |
| 40 | 151st Avenue and Tierra Buena | | | 35,000 | | | | | | | | | |
| 41 | | | | | | | | | | | | | |
| | **Total Capital Projects** | **$ -** | **$ -** | **$ 600,000** | **$ 700,000** | **$ 860,000** | **$ 875,000** | **$1,325,000** | **$1,125,000** | **$1,200,000** | **$1,275,000** | **$ 875,000** | **$ 875,000** |
| | Projects by Grants / Developer Donations | - | - | - | - | - | - | - | - | - | - | - | - |
| | Projects by Enterprise Fund | - | - | 600,000 | 700,000 | 860,000 | 875,000 | 1,325,000 | 1,125,000 | 1,200,000 | 1,275,000 | 875,000 | 875,000 |

# City of Surprise
## Stormwater Utility Rate Study
### Revenue Requirements Analysis

| Cash Flow Sufficiency Test | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EXPENSES** | | | | | | | | | | | | |
| Cash Operating Expenses | $ 600,470 | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 | $ 1,320,687 | $ 1,357,939 | $ 1,396,308 | $ 1,443,149 | $ 1,483,855 |
| Existing Debt Service | - | - | - | - | - | - | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - | - | - | - | - | - | - |
| Rate Funded Capital | - | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| Additions Required to Meet Operating Fund Balance | - | 156,774 | - | - | - | - | - | - | - | - | - | - |
| Total Expenses | $ 600,470 | $ 1,110,485 | $ 1,624,138 | $ 1,945,058 | $ 2,208,636 | $ 2,492,727 | $ 2,777,840 | $ 2,820,687 | $ 2,857,939 | $ 2,896,308 | $ 2,943,149 | $ 2,983,855 |
| **REVENUES** | | | | | | | | | | | | |
| Rate Revenue | $ 0 | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| Non Rate Revenue | 600,470 | - | - | - | - | - | - | - | - | - | - | - |
| Operating Fund & Debt Reserve Fund Interest Earnings | - | 0 | 2,744 | 2,802 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 |
| Total Revenue | $ 600,470 | $ 2,053,731 | $ 2,062,455 | $ 2,068,494 | $ 2,075,037 | $ 2,081,018 | $ 2,086,998 | $ 2,092,978 | $ 2,098,958 | $ 2,104,938 | $ 2,110,918 | $ 2,116,899 |
| **NET CASH FLOW (DEFICIENCY)** | **$ 0** | **$ 943,246** | **$ 438,317** | **$ 123,435** | **$ (133,599)** | **$ (411,709)** | **$ (690,842)** | **$ (727,709)** | **$ (758,981)** | **$ (791,370)** | **$ (832,230)** | **$ (866,956)** |
| **% of Rate Revenue** | -100.00% | -45.93% | -21.28% | -5.98% | 6.45% | 19.82% | 33.16% | 34.83% | 36.22% | 37.66% | 39.49% | 41.02% |

| Coverage Sufficiency Test - Revenue Bonds | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EXPENSES** | | | | | | | | | | | | |
| Total Cash Operating Expenses (less Capital Outlays) | $ 600,470 | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 | $ 1,320,687 | $ 1,357,939 | $ 1,396,308 | $ 1,443,149 | $ 1,483,855 |
| Revenue Bond Debt Service | - | - | - | - | - | - | - | - | - | - | - | - |
| Revenue Bond Coverage Requirement at 1.25 | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Expenses | $ 600,470 | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 | $ 1,320,687 | $ 1,357,939 | $ 1,396,308 | $ 1,443,149 | $ 1,483,855 |
| **ALLOWABLE REVENUES** | | | | | | | | | | | | |
| Rate Revenue | $ 0 | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| Other Revenue | 600,470 | - | - | - | - | - | - | - | - | - | - | - |
| Interest Earnings - All Funds | - | 0 | 11,000 | 15,580 | 17,007 | 17,402 | 19,818 | 19,010 | 20,176 | 19,949 | 18,240 | 21,441 |
| Total Revenue | $ 600,470 | $ 2,053,731 | $ 2,070,711 | $ 2,081,272 | $ 2,088,678 | $ 2,095,054 | $ 2,103,450 | $ 2,108,622 | $ 2,115,768 | $ 2,121,521 | $ 2,125,792 | $ 2,134,974 |
| Coverage Realized | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **COVERAGE SURPLUS (DEFICIENCY)** | **$ 0** | **$ 1,100,020** | **$ 1,096,573** | **$ 911,213** | **$ 880,042** | **$ 852,327** | **$ 825,610** | **$ 787,935** | **$ 757,830** | **$ 725,213** | **$ 682,644** | **$ 651,119** |

# City of Surprise
## Stormwater Utility Rate Study
### Revenue Requirements Analysis

| Maximum Revenue Deficiency | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sufficiency Test Driving the Deficiency | *None* | *None* | *None* | *None* | *Cash* | *Cash* | *Cash* | *Cash* | *Cash* | *Cash* | *Cash* | *Cash* |
| Maximum Deficiency From Tests | $ - | $ - | $ - | $ - | $ 133,599 | $ 411,709 | $ 690,842 | $ 727,709 | $ 758,981 | $ 791,370 | $ 832,230 | $ 866,956 |
| less: Net Revenue From Prior Rate Increases | - | - | - | - | - | (133,984) | (412,894) | (692,825) | (729,792) | (761,146) | (793,622) | (795,874) |
| Revenue Deficiency | $ - | $ - | $ - | $ - | $ 133,599 | $ 277,725 | $ 277,948 | $ 34,884 | $ 29,189 | $ 30,223 | $ 38,608 | $ 71,082 |
| Plus: Adjustment for State Excise Tax | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total Revenue Deficiency** | **$ -** | **$ -** | **$ -** | **$ -** | **$ 133,599** | **$ 277,725** | **$ 277,948** | **$ 34,884** | **$ 29,189** | **$ 30,223** | **$ 38,608** | **$ 71,082** |

| Rate Increases | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rate Revenue with no Increase | $ 0 | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| Revenues from Prior Rate Increases | - | - | - | - | - | 133,984 | 412,894 | 692,825 | 729,792 | 761,146 | 793,622 | 795,874 |
| Rate Revenue Before Rate Increase (Incl. previous increases) | 0 | 2,053,731 | 2,059,711 | 2,065,691 | 2,071,672 | 2,211,636 | 2,496,526 | 2,782,437 | 2,825,384 | 2,862,719 | 2,901,174 | 2,909,406 |
| Required Annual Rate Increase | 0.00% | 0.00% | 0.00% | 0.00% | 6.45% | 12.56% | 11.13% | 1.25% | 1.03% | 1.06% | 1.33% | 2.44% |
| Number of Months New Rates Will Be In Effect | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| *Info: Percentage Increase to Generate Required Revenue* | *0.00%* | *0.00%* | *0.00%* | *0.00%* | *6.45%* | *12.56%* | *11.13%* | *1.25%* | *1.03%* | *1.06%* | *1.33%* | *2.44%* |
| **Policy Induced Rate Increases** | 0.00% | | | | | | | | | | | |
| **ANNUAL RATE INCREASE** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **6.45%** | **12.56%** | **11.13%** | **1.25%** | **1.03%** | **1.06%** | **1.33%** | **2.44%** |
| **CUMULATIVE RATE INCREASE** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **6.45%** | **19.82%** | **33.16%** | **34.83%** | **36.22%** | **37.66%** | **39.49%** | **42.90%** |

| Impacts of Rate Increases | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rate Revenues After Rate Increase | $ 0 | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,205,270 | $ 2,489,361 | $ 2,774,474 | $ 2,817,321 | $ 2,854,573 | $ 2,892,942 | $ 2,939,783 | $ 2,980,489 |
| Full Year Rate Revenues After Rate Increase | *0* | *2,053,731* | *2,059,711* | *2,065,691* | *2,205,270* | *2,489,361* | *2,774,474* | *2,817,321* | *2,854,573* | *2,892,942* | *2,939,783* | *3,020,153* |
| Additional State Taxes Due to Rate Increases | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Cash Flow After Rate Increase | 0 | 1,100,020 | 438,317 | 123,435 | - | 0 | 0 | - | 0 | - | - | - |
| Coverage After Rate Increase | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

# City of Surprise
## Stormwater Utility Rate Study
### Fund Activity

| Funds | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **STORMWATER OPERATIONS FUND** | | | | | | | | | | | | |
| Beginning Balance | $ - | $ 0 | $ 274,355 | $ 280,232 | $ 336,592 | $ 336,592 | $ 336,592 | $ 336,592 | $ 336,592 | $ 336,592 | $ 336,592 | $ 336,592 |
| plus: Net Cash Flow after Rate Increase | 0 | 1,100,020 | 438,317 | 123,435 | - | 0 | 0 | - | 0 | - | - | - |
| less: Transfer of Surplus to Capital Fund | - | (825,665) | (432,440) | (67,075) | - | - | - | - | - | - | - | - |
| **Ending Balance** | **$ 0** | **$ 274,355** | **$ 280,232** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** | **$ 336,592** |
| *Minimum Target Balance* | *$ 98,707* | *$ 156,774* | *$ 160,132* | *$ 192,338* | *$ 198,680* | *$ 204,284* | *$ 210,056* | *$ 217,099* | *$ 223,223* | *$ 229,530* | *$ 237,230* | *$ 243,921* |
| *Maximum Funds to be Kept as Operating Reserves* | *$ 172,738* | *$ 274,355* | *$ 280,232* | *$ 336,592* | *$ 347,690* | *$ 357,497* | *$ 367,598* | *$ 379,924* | *$ 390,640* | *$ 401,678* | *$ 415,152* | *$ 426,862* |
| *Info: No of Days of Cash Operating Expenses* | *0* | *105* | *105* | *105* | *102* | *99* | *96* | *93* | *91* | *88* | *85* | *83* |
| **OPERATIONS FUND - CAPITAL PORTION** | | | | | | | | | | | | |
| Beginning Balance | $ - | $ - | $ 825,665 | $ 1,277,800 | $ 1,364,095 | $ 1,403,638 | $ 1,645,233 | $ 1,564,437 | $ 1,681,026 | $ 1,658,300 | $ 1,487,379 | $ 1,807,525 |
| plus: Rate Funded Capital | - | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| plus: Transfers from Operating Fund | - | 825,665 | 432,440 | 67,075 | - | - | - | - | - | - | - | - |
| plus: Grants/ Donations/ CIAC | - | - | - | - | - | - | - | - | - | - | - | - |
| plus: Additional Proceeds (Costs) | - | - | - | - | - | - | - | - | - | - | - | - |
| plus: Revenue Bond Proceeds | - | - | - | - | - | - | - | - | - | - | - | - |
| plus: Other Loans | - | - | - | - | - | - | - | - | - | - | - | - |
| plus: Other Low Interest Loan Proceeds | - | - | - | - | - | - | - | - | - | - | - | - |
| plus: Interest Earnings | - | - | 8,257 | 12,778 | 13,641 | 14,036 | 16,452 | 15,644 | 16,810 | 16,583 | 14,874 | 18,075 |
| **Total Funding Sources** | **$ -** | **$ 825,665** | **$ 1,916,362** | **$ 2,132,653** | **$ 2,377,736** | **$ 2,667,674** | **$ 3,161,685** | **$ 3,080,082** | **$ 3,197,836** | **$ 3,174,883** | **$ 3,002,253** | **$ 3,325,601** |
| less: Capital Expenditures | - | - | (638,562) | (768,557) | (974,098) | (1,022,441) | (1,597,248) | (1,399,056) | (1,539,536) | (1,687,504) | (1,194,727) | (1,232,523) |
| **Ending Capital Fund Balance** | **$ -** | **$ 825,665** | **$ 1,277,800** | **$ 1,364,095** | **$ 1,403,638** | **$ 1,645,233** | **$ 1,564,437** | **$ 1,681,026** | **$ 1,658,300** | **$ 1,487,379** | **$ 1,807,525** | **$ 2,093,078** |
| *Minimum Target Balance* | *$ 200,000* | *$ 200,000* | *$ 212,771* | *$ 228,142* | *$ 247,624* | *$ 268,073* | *$ 300,018* | *$ 327,999* | *$ 358,790* | *$ 392,540* | *$ 416,435* | *$ 441,085* |
| **DEBT RESERVE** | | | | | | | | | | | | |
| **New Debt** | | | | | | | | | | | | |
| Beginning Balance | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| plus: Reserve Funding from New Debt | - | - | - | - | - | - | - | - | - | - | - | - |
| less: Use of Reserves for Debt Service | - | - | - | - | - | - | - | - | - | - | - | - |
| **Ending Balance** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| *Minimum Target Balance* | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |

# City of Surprise
## Stormwater Utility Rate Study
### Equivalent Dwelling Units (EDUs)

| Customer Type | Accounts | Gross Parcel Area | Impervious Surface Area | Chargeable Pervious Area (Ag) | EDUs | |
|---|---|---|---|---|---|---|
| **Residential** | | | | | | |
| Single Family Residential | 43,700 | | | | 43,700 | |
| RV Parks | 3,267 | | | | 3,267 | One bill to be sent to each RV Park based on lot count, up to HOA or owner to alloc |
| | | | | | | (based on 7/2/15 email from David Kohlbeck |
| **Non-Residential** | | | | | | |
| Commercial | 1,869 | 135,587,096 | 135,587,096 | | 39,645 | Commercial (based on Excel file received 5/21) |
| Agricultural | 10 | 139,479,120 | 6,973,956 | 132,505,164 | 5,914 | |
| Other | - | - | - | | - | |
| **Subtotal** | 48,846 | 275,066,216 | 142,561,052 | 132,505,164 | **92,526** | |
| **Less:** EDU Lost to Credits | | | | | **(15,858)** | |
| **Total Chargeable EDUs** | | | | | **76,668** | |

**Notes:** Square feet for 1 EDU is determined by average Single Family Residence

1 EDU = 3,420 sq. ft. of impervious area

Each Single Family Residence is 1 EDU

Commercial and Other Non-Residential customers are charged based on sq. ft. of Impervious Surface Area

Agricultural is charged based on Impervious Surface Area, plus Chargeable Pervious Area times 10%

RV Dwelling Units are considered 1.00 EDU

Assumed to be 40% of Non-Residential EDUs lost to credits

**Agricultural Lands (based on PDF file received 9/2)**

| | |
|---|---|
| Customer 1 | 1,150 |
| Customer 2 | 229 |
| Customer 3 | 148 |
| Customer 4 | 47 |
| Customer 5 | 283 |
| Customer 6 | 277 |
| Customer 7 | 285 |
| Customer 8 | 72 |
| Customer 9 | 559 |
| Customer 10 | 152 |
| Total Acres | 3,202 |
| Sq ft per Acre | 43,560 |
| **Total Sq Ft** | **139,479,120** |
| Assumed Portion of ISA | 5% |
| Total ISA Sq Ft | 6,973,956 |

| **RV Parks** | **Spaces** |
|---|---|
| MICASA Mobile Homes | 50 |
| Donorma RV Park | 11 |
| Sunflower RV Park | 583 |
| Sunflower RV Park | 557 |
| Hernandez, Antonio | 13 |
| Resendiz, Octavio | 5 |
| C & C Trailer Park | 16 |
| Desertaire **Owner has three parcels** | 16 |
| Desertaire **only 1 designated as commercial** | 15 |
| Happy Trails Comm Assoc | 2,001 |
| **Total RV Parks** | **3,267** |

# City of Surprise
## Stormwater Utility Rate Study
### Credit Calculation

| Expense Allocation | FY 2019 | Base % | Use % | Base $ | Use $ | |
|---|---|---|---|---|---|---|
| Streets ROW | $ 127,592 | 100% | 0% | $ 127,592 | $ - | |
| Streets Street Sweeping | 384,973 | 100% | 0% | 384,973 | - | |
| Sewer Collections | 119,544 | 100% | 0% | 119,544 | - | |
| General Operations | 24,040 | 100% | 0% | 24,040 | - | |
| Future Operational Needs | 513,908 | 50% | 50% | 256,954 | 256,954 | |
| Rate Funded Capital | 775,000 | 50% | 50% | 387,500 | 387,500 | |
| **Total** | **$ 1,945,058** | 67% | 33% | $ 1,300,604 | $ 644,454 | *ok* |

| Credit Alternative #1 | Base | Use | Total | |
|---|---|---|---|---|
| Costs | $ 1,300,604 | $ 644,454 | | |
| Applicable EDUs | 93,334 | 74,951 | | |
| EDU Based Rate | $ 1.16 | $ 0.72 | **$ 1.88** | *Monthly Rate* |
| *Maximum Credit* | | *38%* | | |

| Choose: |
|---|
| Alternative #1 |

| Credit Alternative #2 | Base | Use | Total | |
|---|---|---|---|---|
| Costs | $ 1,300,604 | $ 644,454 | | |
| Applicable EDUs | | 74,951 | | |
| Accounts | 49,273 | | | |
| Account / EDU Based Rate | $ 2.20 | $ 0.72 | **$ 2.92** | *Monthly Rate* |
| *Maximum Credit* | | *$ 0.72* | | |

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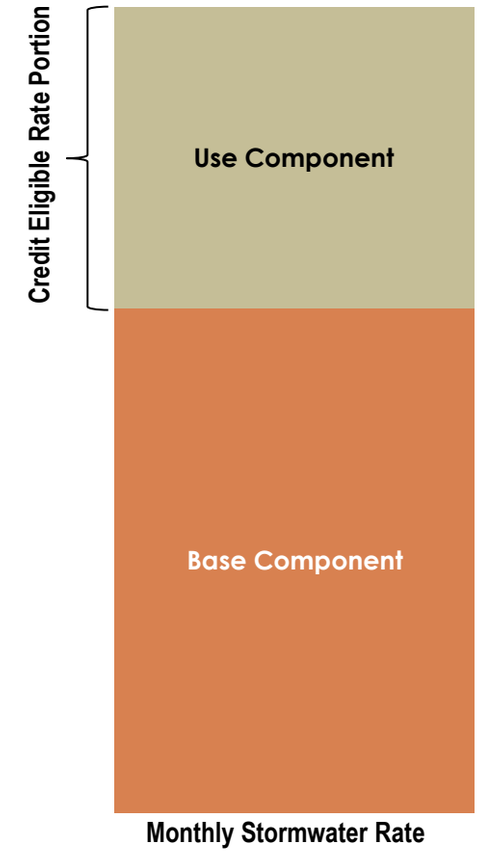
| | 1 |
| 38% | 9 |
| 63% | 15 |

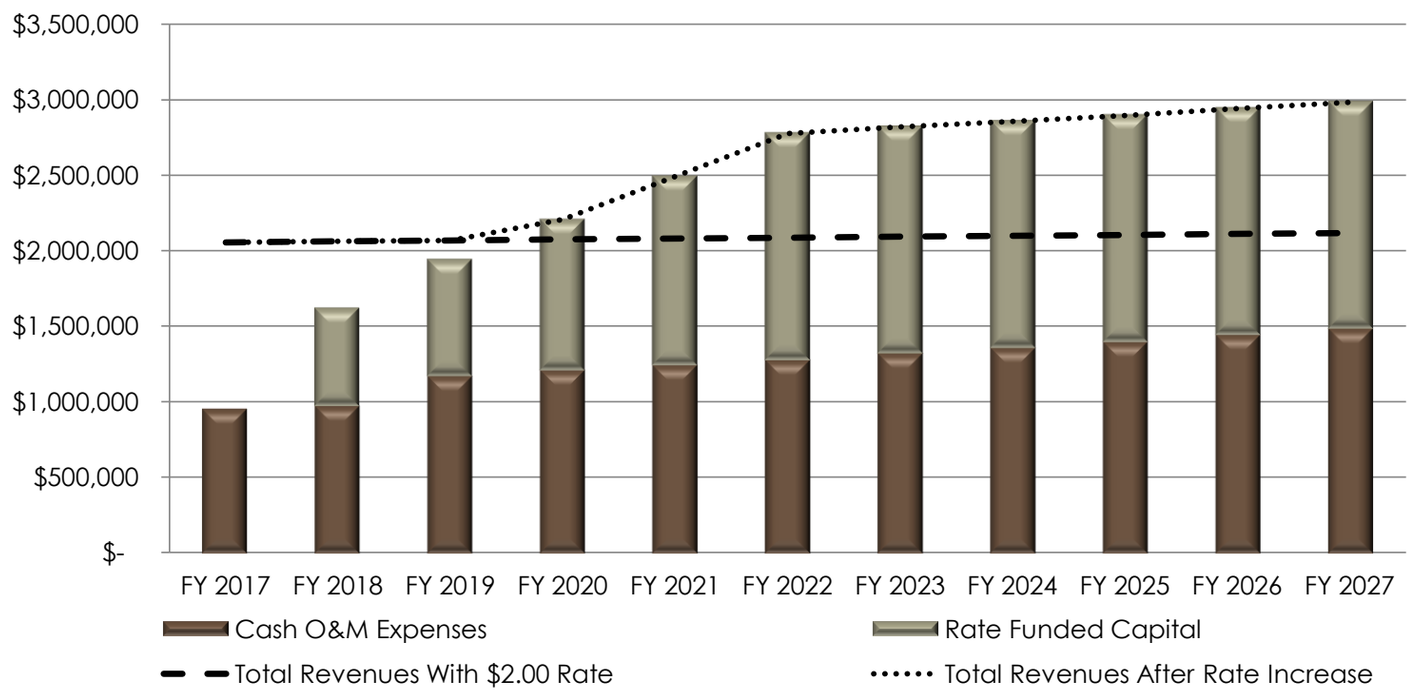


# City of Surprise
## Stormwater Utility Rate Study
### Capital Funding Analysis

| Summary of Expenditures | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAPITAL PROJECTS** | | | | | | | | | | | | |
| Improvement Upgrades & Expansions | $ - | $ - | $ 319,281 | $ 384,279 | $ 487,049 | $ 511,221 | $ 798,624 | $ 699,528 | $ 769,768 | $ 843,752 | $ 597,364 | $ 616,261 |
| Repairs and Replacements | - | - | 319,281 | 384,279 | 487,049 | 511,221 | 798,624 | 699,528 | 769,768 | 843,752 | 597,364 | 616,261 |
| **TOTAL CAPITAL EXPENDITURES** | **$ -** | **$ -** | **$ 638,562** | **$ 768,557** | **$ 974,098** | **$ 1,022,441** | **$ 1,597,248** | **$ 1,399,056** | **$ 1,539,536** | **$ 1,687,504** | **$ 1,194,727** | **$ 1,232,523** |

| Capital Financing Plan | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Additional Proceeds (Costs) | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Project Specific CIAC | - | - | - | - | - | - | - | - | - | - | - | - |
| **Project to be Funded** | **$ -** | **$ -** | **$ 638,562** | **$ 768,557** | **$ 974,098** | **$ 1,022,441** | **$ 1,597,248** | **$ 1,399,056** | **$ 1,539,536** | **$ 1,687,504** | **$ 1,194,727** | **$ 1,232,523** |
| **OTHER FUNDING SOURCES** | | | | | | | | | | | | |
| Other Outside Sources | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Rate Funded System Reinvestment | - | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| Connection Fee Revenue Towards Capital | - | - | - | - | - | - | - | - | - | - | - | - |
| Other Loans | - | - | - | - | - | - | - | - | - | - | - | - |
| Low Interest Loans | - | - | - | - | - | - | - | - | - | - | - | - |
| Revenue Bond Proceeds | - | - | - | - | - | - | - | - | - | - | - | - |
| **TOTAL CAPITAL RESOURCES** | **$ -** | **$ -** | **$ 650,000** | **$ 775,000** | **$ 1,000,000** | **$ 1,250,000** | **$ 1,500,000** | **$ 1,500,000** | **$ 1,500,000** | **$ 1,500,000** | **$ 1,500,000** | **$ 1,500,000** |
| *Info: Working Capital Contingency Deficit* | ***(200,000)*** | - | - | - | - | - | - | - | - | - | - | - |

| | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 | FY 2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cash O&M Expenses | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 | $ 1,320,687 | $ 1,357,939 | $ 1,396,308 | $ 1,443,149 | $ 1,483,855 |
| Existing Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| Rate Funded Capital | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| Additions Required to Meet Operating F | 156,774 | - | - | - | - | - | - | - | - | - | - |
| **Total Expenses** | **$ 1,110,485** | **$ 1,624,138** | **$ 1,945,058** | **$ 2,208,636** | **$ 2,492,727** | **$ 2,777,840** | **$ 2,820,687** | **$ 2,857,939** | **$ 2,896,308** | **$ 2,943,149** | **$ 2,983,855** |
| | | | | | | | | | | | |
| Rate Revenues Under Existing Rates | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| Non-Rate Revenues | 0 | 2,744 | 2,802 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 | 3,366 |
| **Total Revenues With $2.00 Rate** | **$ 2,053,731** | **$ 2,062,455** | **$ 2,068,494** | **$ 2,075,037** | **$ 2,081,018** | **$ 2,086,998** | **$ 2,092,978** | **$ 2,098,958** | **$ 2,104,938** | **$ 2,110,918** | **$ 2,116,899** |
| | | | | | | | | | | | |
| Rate Revenues After Rate Increase | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,205,270 | $ 2,489,361 | $ 2,774,474 | $ 2,817,321 | $ 2,854,573 | $ 2,892,942 | $ 2,939,783 | $ 2,980,489 |
| **Total Revenues After Rate Increase** | **$ 2,053,731** | **$ 2,062,455** | **$ 2,068,494** | **$ 2,208,636** | **$ 2,492,727** | **$ 2,777,840** | **$ 2,820,687** | **$ 2,857,939** | **$ 2,896,308** | **$ 2,943,149** | **$ 2,983,855** |



# APPENDIX C: REVENUE REQUIREMENT – SCENARIO II

# City of Surprise
# Stormwater Utility Rate Study
## Summary

| Revenue Requirement | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Revenues** | | | | | | | | | | | |
| Rate Revenues Under Existing Rates | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| Non-Rate Revenues | 0 | 2,744 | 2,802 | 3,366 | 2,030 | 3,575 | 3,676 | 3,799 | 3,906 | 4,017 | 4,152 |
| **Total Revenues** | **$ 2,053,731** | **$ 2,062,455** | **$ 2,068,494** | **$ 2,075,037** | **$ 2,079,682** | **$ 2,087,207** | **$ 2,093,288** | **$ 2,099,391** | **$ 2,105,479** | **$ 2,111,569** | **$ 2,117,684** |
| **Expenses** | | | | | | | | | | | |
| Cash Operating Expenses | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 | $ 1,320,687 | $ 1,357,939 | $ 1,396,308 | $ 1,443,149 | $ 1,483,855 |
| Existing Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| Rate Funded Capital | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| Additions Required to Meet Operating Fund Balance | - | - | - | - | - | - | - | - | - | - | - |
| **Total Expenses** | **$ 953,711** | **$ 1,624,138** | **$ 1,945,058** | **$ 2,208,636** | **$ 2,492,727** | **$ 2,777,840** | **$ 2,820,687** | **$ 2,857,939** | **$ 2,896,308** | **$ 2,943,149** | **$ 2,983,855** |
| **Net Surplus (Deficiency)** | **$ 1,100,020** | **$ 438,317** | **$ 123,435** | **$ (133,599)** | **$ (413,045)** | **$ (690,633)** | **$ (727,399)** | **$ (758,547)** | **$ (790,829)** | **$ (831,579)** | **$ (866,170)** |
| Additions to Meet Coverage | - | - | - | - | - | - | - | - | - | - | - |
| **Total Surplus (Deficiency)** | **$ 1,100,020** | **$ 438,317** | **$ 123,435** | **$ (133,599)** | **$ (413,045)** | **$ (690,633)** | **$ (727,399)** | **$ (758,547)** | **$ (790,829)** | **$ (831,579)** | **$ (866,170)** |
| **% of Rate Revenue** | **0.00%** | **0.00%** | **0.00%** | **6.45%** | **19.88%** | **33.15%** | **34.81%** | **36.20%** | **37.63%** | **39.46%** | **40.98%** |
| ***Annual Rate Adjustment*** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **37.50%** | **0.00%** | **0.00%** | **0.00%** | **3.75%** | **0.00%** | **0.00%** |
| ***Cumulative Annual Rate Adjustment*** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **37.50%** | **37.50%** | **37.50%** | **37.50%** | **42.66%** | **42.66%** | **42.66%** |
| Rate Revenues After Rate Increase | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,856,771 | $ 2,864,994 | $ 2,873,217 | $ 2,881,439 | $ 2,998,024 | $ 3,006,555 | $ 3,015,086 |
| Additional Taxes from Rate Increase | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **Net Cash Flow After Rate Increase** | **1,100,020** | **438,317** | **123,435** | **(133,599)** | **366,074** | **90,729** | **56,206** | **27,300** | **105,623** | **67,424** | **35,383** |
| Coverage After Rate Increases | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** |
| Sample Residential Monthly Bill | **$ 2.00** | **$ 2.00** | **$ 2.00** | **$ 2.00** | **$ 2.75** | **$ 2.75** | **$ 2.75** | **$ 2.75** | **$ 2.85** | **$ 2.85** | **$ 2.85** |
| Monthly Average Increase ($) | $ 2.00 | $ - | $ - | $ - | $ 0.75 | $ - | $ - | $ - | $ 0.10 | $ - | $ - |

# City of Surprise
# Stormwater Utility Rate Study
## Summary

| Fund Balance | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SEWER OPERATIONS FUND** | | | | | | | | | | | |
| **Beginning Balance** | $ 0 | $ 274,355 | $ 280,232 | $ 336,592 | $ 202,994 | $ 357,497 | $ 367,598 | $ 379,924 | $ 390,640 | $ 401,678 | $ 415,152 |
| plus: Net Cash Flow after Rate Increase | 1,100,020 | 438,317 | 123,435 | (133,599) | 366,074 | 90,729 | 56,206 | 27,300 | 105,623 | 67,424 | 35,383 |
| less: Transfer of Surplus to Capital Fund | (825,665) | (432,440) | (67,075) | - | (211,571) | (80,628) | (43,880) | (16,584) | (94,585) | (53,949) | (23,673) |
| **Ending Balance** | **$ 274,355** | **$ 280,232** | **$ 336,592** | **$ 202,994** | **$ 357,497** | **$ 367,598** | **$ 379,924** | **$ 390,640** | **$ 401,678** | **$ 415,152** | **$ 426,862** |
| *Target Balance* | *$ 274,355* | *$ 280,232* | *$ 336,592* | *$ 347,690* | *$ 357,497* | *$ 367,598* | *$ 379,924* | *$ 390,640* | *$ 401,678* | *$ 415,152* | *$ 426,862* |
| *Days* | *105* | *105* | *105* | *61* | *105* | *105* | *105* | *105* | *105* | *105* | *105* |
| **OPERATIONS FUND - CAPITAL PORTION** | | | | | | | | | | | |
| **Beginning Balance** | $ - | $ 825,665 | $ 1,277,800 | $ 1,364,095 | $ 1,403,638 | $ 1,856,804 | $ 1,858,752 | $ 2,022,163 | $ 2,019,433 | $ 1,946,708 | $ 2,325,397 |
| plus: Rate Funded Capital | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| plus: Transfers from Operating Fund | 825,665 | 432,440 | 67,075 | - | 211,571 | 80,628 | 43,880 | 16,584 | 94,585 | 53,949 | 23,673 |
| plus: Grants/ Donations/ CIAC | - | - | - | - | - | - | - | - | - | - | - |
| plus: Additional Proceeds (Costs) | - | - | - | - | - | - | - | - | - | - | - |
| plus: Transfers from SPA Funds for Deficit Repayment | - | - | - | - | - | - | - | - | - | - | - |
| plus: Net Debt Proceeds Available for Projects | - | - | - | - | - | - | - | - | - | - | - |
| plus: Interest Earnings | - | 8,257 | 12,778 | 13,641 | 14,036 | 18,568 | 18,588 | 20,222 | 20,194 | 19,467 | 23,254 |
| Total Funding Sources | **$ 825,665** | **$ 1,916,362** | **$ 2,132,653** | **$ 2,377,736** | **$ 2,879,246** | **$ 3,456,000** | **$ 3,421,219** | **$ 3,558,969** | **$ 3,634,212** | **$ 3,520,124** | **$ 3,872,324** |
| less: Capital Expenditures | - | (638,562) | (768,557) | (974,098) | (1,022,441) | (1,597,248) | (1,399,056) | (1,539,536) | (1,687,504) | (1,194,727) | (1,232,523) |
| less: Transfers to SPA Funds | - | - | - | - | - | - | - | - | - | - | - |
| **Ending Working Capital Balance** | **$ 825,665** | **$ 1,277,800** | **$ 1,364,095** | **$ 1,403,638** | **$ 1,856,804** | **$ 1,858,752** | **$ 2,022,163** | **$ 2,019,433** | **$ 1,946,708** | **$ 2,325,397** | **$ 2,639,801** |
| *Minimum Target Balance* | *$ 200,000* | *$ 212,771* | *$ 228,142* | *$ 247,624* | *$ 268,073* | *$ 300,018* | *$ 327,999* | *$ 358,790* | *$ 392,540* | *$ 416,435* | *$ 441,085* |
| **COMBINED BEGINNING BALANCE** | **$ 0** | **$ 1,100,020** | **$ 1,558,031** | **$ 1,700,687** | **$ 1,606,632** | **$ 2,214,301** | **$ 2,226,350** | **$ 2,402,087** | **$ 2,410,073** | **$ 2,348,385** | **$ 2,740,549** |
| **COMBINED ENDING BALANCE** | **$ 1,100,020** | **$ 1,558,031** | **$ 1,700,687** | **$ 1,606,632** | **$ 2,214,301** | **$ 2,226,350** | **$ 2,402,087** | **$ 2,410,073** | **$ 2,348,385** | **$ 2,740,549** | **$ 3,066,664** |

# City of Surprise
## Stormwater Utility Rate Study
### Assumptions

*July 2015 - June 2016*

| Economic & Financial Factors | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 General Cost Inflation | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| 2 Construction Cost Inflation | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% | 3.16% |
| 3 Labor Cost Inflation | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| 4 Benefit Cost Inflation | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| 5 Customer Growth | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.28% | 0.28% |
| 6 General Inflation plus Growth | 3.30% | 3.30% | 3.30% | 3.30% | 3.30% | 3.30% | 3.30% | 3.30% | 3.29% | 3.29% | 3.29% | 3.29% |
| 7 No Escalation | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 8 PILOT | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 9 Franchise Fee | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| 10 Fuel Cost Escalation | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% | 4.75% |
| 11 [Extra] | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Fund Earnings | 0.50% | 0.75% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% |

| Accounting Assumptions | | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FISCAL POLICY RESTRICTIONS** | | | | | | | | | | | | | |
| Min. Op. Fund Balance (days of O&M expense) | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Max. Op. Fund Balance (days of O&M expense) | | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| Minimum Capital Fund Balance Target | | | | | | | | | | | | | |
| Select Minimum Capital Fund Balance Target | 1 | **Defined as % of Plant** | | | | | | | | | | | |
| **1** - Defined as % of Plant | | | | | | | | | | | | | |
| Plant-in-Service in 2015 | $ 10,000,000 | | | | | | | | | | | | |
| Minimum Capital Fund Balance - % of plant assets | | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% |
| **2** - Amount at Right ==> | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **RATE FUNDED SYSTEM REINVESTMENT** | | | | | | | | | | | | | |
| Select Reinvestment Funding Strategy | 3 | **User Input** | | | | | | | | | | | |
| **Amount of Annual Cash Funding from Rates** | | | | | | | | | | | | | |
| **1** - Equal to Annual Depreciation Expense | | $ - | $ - | $ 12,771 | $ 28,142 | $ 47,624 | $ 68,073 | $ 100,018 | $ 127,999 | $ 158,790 | $ 192,540 | $ 216,435 | $ 216,435 |
| **2** - Equal to Depreciation less Annual Debt Principal Payments | | - | - | 12,771 | 28,142 | 47,624 | 68,073 | 100,018 | 127,999 | 158,790 | 192,540 | 216,435 | 216,435 |
| **3** - Equal to Amount at Right ==> | | - | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| **4** - Do Not Fund Depreciation | | | | | | | | | | | | | |

| Capital Financing Assumptions | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

# City of Surprise
## Stormwater Utility Rate Study
### Assumptions

| | | July 2015 - June 2016 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FUNDING SOURCES** | | | | | | | | | | | | | |
| **Grants** | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **Additional Proceeds (Costs)** | | | | | | | | | | | | | |
| [Extra line] | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| [Extra line] | | - | - | - | - | - | - | - | - | - | - | - | - |
| [Extra line] | | - | - | - | - | - | - | - | - | - | - | - | - |
| [Extra line] | | - | - | - | - | - | - | - | - | - | - | - | - |
| [Extra line] | | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total Additional Proceeds** | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **REVENUE BONDS** | | | | | | | | | | | | | |
| Term (years) | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Interest Cost | | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% |
| Issuance Cost | | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% |
| Revenue Bond Coverage Requirement | 1.25 | | | | | | | | | | | | |
| **OTHER LOANS** | | | | | | | | | | | | | |
| Term (years) | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Interest Cost | | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% |
| **OTHER LOW COST LOANS** | | | | | | | | | | | | | |
| Term (years) | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Interest Cost | | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% |
| Issuance Cost | | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

| Other Assumptions | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Customer Growth** | | | | | | | | | | | | | | | |
| Projected New Equivalent Dwelling Units (EDUs) | | 100.00% | of Original Growth Projections | | | | | | *Based on previous 5 year average growth projections* | | | | | | |
| SPA 1 | | | - | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| SPA 2 | | | - | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| SPA 3 | | | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **Total New EDUs** | | | **-** | **271** | **271** | **271** | **271** | **271** | **271** | **271** | **271** | **271** | **271** | **271** | **271** |
| Cumulative EDUs | | 92,526 | 92,526 | 92,797 | 93,068 | 93,339 | 93,610 | 93,881 | 94,152 | 94,423 | 94,694 | 94,965 | 95,236 | 95,507 | 95,778 |
| EDU Growth Rate | | | 0.00% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.29% | 0.28% | 0.28% |
| **PILOT Tax Components** | | | | | | | | | | | | | | | |
| Capital Assets | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ARS Assessed Valuation Annual Year Percentage | | 19.50% | 19.00% | 18.50% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% |
| ARS Assessed Valuation Fiscal Year Percentage | | 19.75% | 19.25% | 18.75% | 18.25% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% | 18.00% |
| Primary Property Tax Rate | | 0.7383% | 0.7783% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% | 0.7591% |
| Payment in Lieu of Taxes | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |

# City of Surprise
## Stormwater Utility Rate Study
### Operating Revenue and Expenditure Forecast

| | | | | Actual | Budget | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Revenues** | | | FORECAST BASIS | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
| | **Rate Revenues** | | | | | | | | | | | | | | | |
| | Rate Revenues | 5 | Customer Growth | $ - | $ 0 | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| | [Extra] | 7 | No Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Total Rate Revenue** | | | **$ -** | **$ 0** | **$ 2,053,731** | **$ 2,059,711** | **$ 2,065,691** | **$ 2,071,672** | **$ 2,077,652** | **$ 2,083,632** | **$ 2,089,612** | **$ 2,095,592** | **$ 2,101,572** | **$ 2,107,553** | **$ 2,113,533** |
| | **Non-Rate Revenues** | | | | | | | | | | | | | | | |
| 31813 | Interest Income | 7 | No Escalation | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 31543 | Federal Grant Revenue - SPA 1 | 7 | No Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31432 | Line Extension Fees | 7 | No Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31461 | Revenue Recovery-Utility Bill | 7 | No Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31816 | Unrealized Gain/Loss | 7 | No Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | [Extra] | 7 | No Escalation | - | 600,470 | - | - | - | - | - | - | - | - | - | - | - |
| | **Total Non-Rate Revenues** | | | **$ -** | **$ 600,470** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| **TOTAL REVENUES** | | | | **$ -** | **$ 600,470** | **$ 2,053,731** | **$ 2,059,711** | **$ 2,065,691** | **$ 2,071,672** | **$ 2,077,652** | **$ 2,083,632** | **$ 2,089,612** | **$ 2,095,592** | **$ 2,101,572** | **$ 2,107,553** | **$ 2,113,533** |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Expenses** | | | FORECAST BASIS | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
| **544** | **Stormwater Streets Fund** | | | | | | | | | | | | | | | |
| **516** | **ROW** | | | | | | | | | | | | | | | |
| | **Personnel/Salaries** | | | | | | | | | | | | | | | |
| 36111 | Full Time Salaries | 3 | Labor Cost Inflation | 24,479 | 28,640 | 29,499 | 30,384 | 31,296 | 32,235 | 33,202 | 34,198 | 35,224 | 36,280 | 37,369 | 38,490 | 39,644 |
| 36113 | Overtime Compensation | 3 | Labor Cost Inflation | 368 | 700 | 721 | 743 | 765 | 788 | 811 | 836 | 861 | 887 | 913 | 941 | 969 |
| 36115 | Holidays | 4 | Benefit Cost Inflation | 1,338 | - | - | - | - | - | - | - | - | - | - | - | - |
| 36116 | Paid Time Off | 4 | Benefit Cost Inflation | 2,730 | - | - | - | - | - | - | - | - | - | - | - | - |
| 36151 | Stipend | 4 | Benefit Cost Inflation | 46 | 50 | 52 | 53 | 55 | 56 | 58 | 60 | 61 | 63 | 65 | 67 | 69 |
| 36211 | FICA | 4 | Benefit Cost Inflation | 2,081 | 2,250 | 2,318 | 2,387 | 2,459 | 2,532 | 2,608 | 2,687 | 2,767 | 2,850 | 2,936 | 3,024 | 3,115 |
| 36231 | Medical | 4 | Benefit Cost Inflation | 6,743 | 7,030 | 7,241 | 7,458 | 7,682 | 7,912 | 8,150 | 8,394 | 8,646 | 8,905 | 9,173 | 9,448 | 9,731 |
| 36232 | Dental | 4 | Benefit Cost Inflation | 330 | 330 | 340 | 350 | 361 | 371 | 383 | 394 | 406 | 418 | 431 | 443 | 457 |
| 36233 | Vision | 4 | Benefit Cost Inflation | 54 | 50 | 52 | 53 | 55 | 56 | 58 | 60 | 61 | 63 | 65 | 67 | 69 |
| 36234 | Life | 4 | Benefit Cost Inflation | 122 | 130 | 134 | 138 | 142 | 146 | 151 | 155 | 160 | 165 | 170 | 175 | 180 |
| 36252 | AZ State Retirement | 4 | Benefit Cost Inflation | 3,342 | 3,410 | 3,512 | 3,618 | 3,726 | 3,838 | 3,953 | 4,072 | 4,194 | 4,320 | 4,449 | 4,583 | 4,720 |
| 36278 | Workers Compensation | 4 | Benefit Cost Inflation | 1,790 | 1,730 | 1,782 | 1,835 | 1,890 | 1,947 | 2,006 | 2,066 | 2,128 | 2,192 | 2,257 | 2,325 | 2,395 |
| | **Commodities/Supplies** | | | | | | | | | | | | | | | |
| 37111 | Office Supplies | 1 | General Cost Inflation | 6 | 20 | 21 | 21 | 22 | 23 | 23 | 24 | 25 | 25 | 26 | 27 | 28 |
| 37131 | Clothing & Uniforms | 1 | General Cost Inflation | 74 | 80 | 82 | 85 | 87 | 90 | 93 | 96 | 98 | 101 | 104 | 108 | 111 |
| 37142 | Phone Supplies | 1 | General Cost Inflation | 89 | - | - | - | - | - | - | - | - | - | - | - | - |
| 37161 | Operational Supplies | 1 | General Cost Inflation | 714 | 350 | 361 | 371 | 382 | 394 | 406 | 418 | 430 | 443 | 457 | 470 | 484 |
| 37165 | Mach. & Equipment <$10,000 | 1 | General Cost Inflation | 1,155 | 1,550 | 1,597 | 1,644 | 1,694 | 1,745 | 1,797 | 1,851 | 1,906 | 1,963 | 2,022 | 2,083 | 2,146 |
| 37193 | Safety & First Aid Supplies | 1 | General Cost Inflation | 371 | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 | 692 |
| 37211 | Gas & Fuel | 1 | General Cost Inflation | 5,193 | 5,200 | 5,356 | 5,517 | 5,682 | 5,853 | 6,028 | 6,209 | 6,395 | 6,587 | 6,785 | 6,988 | 7,198 |
| 37212 | Auto Parts & Lubricants | 1 | General Cost Inflation | 1,673 | 5,160 | 5,315 | 5,474 | 5,638 | 5,808 | 5,982 | 6,161 | 6,346 | 6,537 | 6,733 | 6,935 | 7,143 |
| 37223 | Agricultural/Grounds Supplies | 1 | General Cost Inflation | 1,434 | 1,000 | 1,030 | 1,061 | 1,093 | 1,126 | 1,159 | 1,194 | 1,230 | 1,267 | 1,305 | 1,344 | 1,384 |
| 37233 | Street Repair Supplies | 1 | General Cost Inflation | 199 | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Contractual Services** | | | | | | | | | | | | | | | |
| 38162 | Landscape Services | 1 | General Cost Inflation | 29,078 | 36,695 | 37,796 | 38,930 | 40,098 | 41,301 | 42,540 | 43,816 | 45,130 | 46,484 | 47,879 | 49,315 | 50,794 |
| 38199 | Other Prof/Tech Services | 1 | General Cost Inflation | 127 | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 | 692 |
| 38211 | Water | 1 | General Cost Inflation | 9,699 | 9,920 | 10,218 | 10,524 | 10,840 | 11,165 | 11,500 | 11,845 | 12,200 | 12,566 | 12,943 | 13,332 | 13,732 |
| 38212 | Electricity | 1 | General Cost Inflation | 700 | 720 | 742 | 764 | 787 | 810 | 835 | 860 | 886 | 912 | 939 | 968 | 997 |
| 38216 | Sanitary/Landfill | 1 | General Cost Inflation | 676 | 1,500 | 1,545 | 1,591 | 1,639 | 1,688 | 1,739 | 1,791 | 1,845 | 1,900 | 1,957 | 2,016 | 2,076 |
| 38221 | Cell Phone/Pagers | 1 | General Cost Inflation | 252 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38324 | Machinery & Equip. Maint. | 1 | General Cost Inflation | 337 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38331 | Vehicle Maintenance | 1 | General Cost Inflation | 3,334 | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 | 3,360 | 3,461 |
| 38372 | Pest Control Services | 1 | General Cost Inflation | 124 | 120 | 124 | 127 | 131 | 135 | 139 | 143 | 148 | 152 | 157 | 161 | 166 |
| 38381 | Grounds Maintenance | 1 | General Cost Inflation | 6,984 | 6,000 | 6,180 | 6,365 | 6,556 | 6,753 | 6,956 | 7,164 | 7,379 | 7,601 | 7,829 | 8,063 | 8,305 |
| 38591 | Other Rental/Leases | 1 | General Cost Inflation | 290 | 300 | 309 | 318 | 328 | 338 | 348 | 358 | 369 | 380 | 391 | 403 | 415 |
| 38922 | Travel & Training | 1 | General Cost Inflation | 41 | 130 | 134 | 138 | 142 | 146 | 151 | 155 | 160 | 165 | 170 | 175 | 180 |
| 38924 | Dues & Memberships | 1 | General Cost Inflation | 90 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38927 | EE Certification & Licensing | 1 | General Cost Inflation | 138 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38991 | Uniform/Laundry Services | 1 | General Cost Inflation | 113 | 200 | 206 | 212 | 219 | 225 | 232 | 239 | 246 | 253 | 261 | 269 | 277 |
| **517** | **Street Sweeping** | | | | | | | | | | | | | | | |
| | **Personnel/Salaries** | | | | | | | | | | | | | | | |
| 36111 | Full Time Salaries | 3 | Labor Cost Inflation | 113,701 | 167,130 | 172,144 | 177,308 | 182,627 | 188,106 | 193,749 | 199,562 | 205,549 | 211,715 | 218,067 | 224,609 | 231,347 |
| 36113 | Overtime Compensation | 3 | Labor Cost Inflation | 6,164 | 4,545 | 4,681 | 4,822 | 4,966 | 5,115 | 5,269 | 5,427 | 5,590 | 5,757 | 5,930 | 6,108 | 6,291 |
| 36115 | Holidays | 4 | Benefit Cost Inflation | 5,883 | - | - | - | - | - | - | - | - | - | - | - | - |
| 36116 | Paid Time Off | 4 | Benefit Cost Inflation | 11,464 | - | - | - | - | - | - | - | - | - | - | - | - |
| 36151 | Stipend | 4 | Benefit Cost Inflation | - | 315 | 324 | 334 | 344 | 355 | 365 | 376 | 387 | 399 | 411 | 423 | 436 |
| 36211 | FICA | 4 | Benefit Cost Inflation | 9,872 | 13,140 | 13,534 | 13,940 | 14,358 | 14,789 | 15,233 | 15,690 | 16,161 | 16,645 | 17,145 | 17,659 | 18,189 |
| 36231 | Medical | 4 | Benefit Cost Inflation | 27,146 | 35,730 | 36,802 | 37,906 | 39,043 | 40,214 | 41,421 | 42,663 | 43,943 | 45,262 | 46,620 | 48,018 | 49,459 |
| 36232 | Dental | 4 | Benefit Cost Inflation | 2,151 | 2,610 | 2,688 | 2,769 | 2,852 | 2,938 | 3,026 | 3,116 | 3,210 | 3,306 | 3,405 | 3,508 | 3,613 |
| 36233 | Vision | 4 | Benefit Cost Inflation | 326 | 360 | 371 | 382 | 393 | 405 | 417 | 430 | 443 | 456 | 470 | 484 | 498 |

# City of Surprise
## Stormwater Utility Rate Study
### Operating Revenue and Expenditure Forecast

| | | | | Actual | Budget | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36234 | Life | 4 | Benefit Cost Inflation | 562 | 720 | 742 | 764 | 787 | 810 | 835 | 860 | 886 | 912 | 939 | 968 | 997 |
| 36252 | AZ State Retirement | 4 | Benefit Cost Inflation | 15,903 | 19,935 | 20,533 | 21,149 | 21,784 | 22,437 | 23,110 | 23,803 | 24,518 | 25,253 | 26,011 | 26,791 | 27,595 |
| 36278 | Workers Compensation | 4 | Benefit Cost Inflation | 9,450 | 9,270 | 9,548 | 9,835 | 10,130 | 10,433 | 10,746 | 11,069 | 11,401 | 11,743 | 12,095 | 12,458 | 12,832 |
| | **Commodities/Supplies** | | | | | | | | | | | | | | | |
| 37131 | Clothing & Uniforms | 1 | General Cost Inflation | 322 | 315 | 324 | 334 | 344 | 355 | 365 | 376 | 387 | 399 | 411 | 423 | 436 |
| 37142 | Phone Supplies | 1 | General Cost Inflation | 351 | - | - | - | - | - | - | - | - | - | - | - | - |
| 37161 | Operational Supplies | 1 | General Cost Inflation | 498 | - | - | - | - | - | - | - | - | - | - | - | - |
| 37165 | Mach. & Equipment <$10,000 | 1 | General Cost Inflation | 13,270 | 12,600 | 12,978 | 13,367 | 13,768 | 14,181 | 14,607 | 15,045 | 15,496 | 15,961 | 16,440 | 16,933 | 17,441 |
| 37193 | Safety & First Aid Supplies | 1 | General Cost Inflation | 557 | 855 | 881 | 907 | 934 | 962 | 991 | 1,021 | 1,052 | 1,083 | 1,116 | 1,149 | 1,184 |
| 37211 | Gas & Fuel | 1 | General Cost Inflation | 30,734 | 29,385 | 30,267 | 31,175 | 32,110 | 33,073 | 34,065 | 35,087 | 36,140 | 37,224 | 38,341 | 39,491 | 40,676 |
| 37212 | Auto Parts & Lubricants | 1 | General Cost Inflation | 21,394 | 24,165 | 24,890 | 25,637 | 26,406 | 27,198 | 28,014 | 28,854 | 29,720 | 30,611 | 31,530 | 32,476 | 33,450 |
| 37232 | Chemical Supplies | 1 | General Cost Inflation | 917 | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Contractual Services** | | | | | | | | | | | | | | | |
| 38211 | Water | 1 | General Cost Inflation | 4,059 | 4,815 | 4,959 | 5,108 | 5,261 | 5,419 | 5,582 | 5,749 | 5,922 | 6,099 | 6,282 | 6,471 | 6,665 |
| 38216 | Sanitary/Landfill | 1 | General Cost Inflation | 29,138 | 20,250 | 20,858 | 21,483 | 22,128 | 22,792 | 23,475 | 24,180 | 24,905 | 25,652 | 26,422 | 27,214 | 28,031 |
| 38217 | Postage & Mailings | 1 | General Cost Inflation | 323 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38324 | Machinery & Equip. Maint. | 1 | General Cost Inflation | 113 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38331 | Vehicle Maintenance | 1 | General Cost Inflation | 9,927 | 5,040 | 5,191 | 5,347 | 5,507 | 5,673 | 5,843 | 6,018 | 6,199 | 6,385 | 6,576 | 6,773 | 6,977 |
| 38922 | Travel & Training | 1 | General Cost Inflation | 27 | 135 | 139 | 143 | 148 | 152 | 157 | 161 | 166 | 171 | 176 | 181 | 187 |
| 38924 | Dues & Memberships | 1 | General Cost Inflation | 405 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38951 | Printing | 1 | General Cost Inflation | 26 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38991 | Uniform/Laundry Services | 1 | General Cost Inflation | 457 | 990 | 1,020 | 1,050 | 1,082 | 1,114 | 1,148 | 1,182 | 1,218 | 1,254 | 1,292 | 1,330 | 1,370 |
| **643** | **Stormwater Sewer Fund** | | | | | | | | | | | | | | | |
| **601** | **Collections WW** | | | | | | | | | | | | | | | |
| | **Personnel/Salaries** | | | | | | | | | | | | | | | |
| 36111 | Full Time Salaries | 3 | Labor Cost Inflation | - | 75,100 | 77,353 | 79,674 | 82,064 | 84,526 | 87,061 | 89,673 | 92,364 | 95,134 | 97,988 | 100,928 | 103,956 |
| 36151 | Stipend | 4 | Benefit Cost Inflation | - | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 | 692 |
| 36211 | FICA | 4 | Benefit Cost Inflation | - | 4,700 | 4,841 | 4,986 | 5,136 | 5,290 | 5,449 | 5,612 | 5,780 | 5,954 | 6,132 | 6,316 | 6,506 |
| 36211 | FICA | 4 | Benefit Cost Inflation | - | 1,100 | 1,133 | 1,167 | 1,202 | 1,238 | 1,275 | 1,313 | 1,353 | 1,393 | 1,435 | 1,478 | 1,523 |
| 36231 | Medical | 4 | Benefit Cost Inflation | - | 11,000 | 11,330 | 11,670 | 12,020 | 12,381 | 12,752 | 13,135 | 13,529 | 13,934 | 14,353 | 14,783 | 15,227 |
| 36232 | Dental | 4 | Benefit Cost Inflation | - | 600 | 618 | 637 | 656 | 675 | 696 | 716 | 738 | 760 | 783 | 806 | 831 |
| 36233 | Vision | 4 | Benefit Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| 36234 | Life | 4 | Benefit Cost Inflation | - | 300 | 309 | 318 | 328 | 338 | 348 | 358 | 369 | 380 | 391 | 403 | 415 |
| 36252 | AZ State Retirement | 4 | Benefit Cost Inflation | - | 8,800 | 9,064 | 9,336 | 9,616 | 9,904 | 10,202 | 10,508 | 10,823 | 11,148 | 11,482 | 11,826 | 12,181 |
| 36278 | Workers Compensation | 4 | Benefit Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| | **Commodities/Supplies** | | | | | | | | | | | | | | | |
| 37111 | Office Supplies | 1 | General Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| 37114 | Books & Subscriptions | 1 | General Cost Inflation | - | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 | 692 |
| 37131 | Clothing & Uniforms | 1 | General Cost Inflation | - | 200 | 206 | 212 | 219 | 225 | 232 | 239 | 246 | 253 | 261 | 269 | 277 |
| 37193 | Safety & First Aid Supplies | 1 | General Cost Inflation | - | 300 | 309 | 318 | 328 | 338 | 348 | 358 | 369 | 380 | 391 | 403 | 415 |
| | **Contractual Services** | | | | | | | | | | | | | | | |
| 38922 | Travel & Training | 1 | General Cost Inflation | - | 3,100 | 3,193 | 3,289 | 3,387 | 3,489 | 3,594 | 3,702 | 3,813 | 3,927 | 4,045 | 4,166 | 4,291 |
| 38924 | Dues & Memberships | 1 | General Cost Inflation | - | 2,800 | 2,884 | 2,971 | 3,060 | 3,151 | 3,246 | 3,343 | 3,444 | 3,547 | 3,653 | 3,763 | 3,876 |
| 38925 | Federal Mileage Allowance | 1 | General Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| **645** | **Stormwater General Fund** | | | | | | | | | | | | | | | |
| **112** | **General Operation** | | | | | | | | | | | | | | | |
| | **Commodities/Supplies** | | | | | | | | | | | | | | | |
| 37111 | Office Supplies | 1 | General Cost Inflation | 80 | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| 37112 | Computer Supplies | 1 | General Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| 37114 | Books & Subscriptions | 1 | General Cost Inflation | 111 | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 | 692 |
| 37131 | Clothing & Uniforms | 1 | General Cost Inflation | 217 | - | - | - | - | - | - | - | - | - | - | - | - |
| 37165 | Mach. & Equipment <$10,000 | 1 | General Cost Inflation | 19 | - | - | - | - | - | - | - | - | - | - | - | - |
| 37194 | Community Relations Supplies | 1 | General Cost Inflation | 660 | 1,200 | 1,236 | 1,273 | 1,311 | 1,351 | 1,391 | 1,433 | 1,476 | 1,520 | 1,566 | 1,613 | 1,661 |
| 37211 | Gas & Fuel | 1 | General Cost Inflation | 549 | 600 | 618 | 637 | 656 | 675 | 696 | 716 | 738 | 760 | 783 | 806 | 831 |
| 37212 | Auto Parts & Lubricants | 1 | General Cost Inflation | 30 | 200 | 206 | 212 | 219 | 225 | 232 | 239 | 246 | 253 | 261 | 269 | 277 |
| 37997 | Education & Training Supplies | 1 | General Cost Inflation | 151 | 200 | 206 | 212 | 219 | 225 | 232 | 239 | 246 | 253 | 261 | 269 | 277 |
| | **Contractual Services** | | | | | | | | | | | | | | | |
| 38124 | Audit Services | 1 | General Cost Inflation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 38128 | Recording, License & Permit Fees | 1 | General Cost Inflation | 11,900 | 14,000 | 14,420 | 14,853 | 15,298 | 15,757 | 16,230 | 16,717 | 17,218 | 17,735 | 18,267 | 18,815 | 19,379 |
| 38199 | Other Prof/Tech Services | 1 | General Cost Inflation | 10,720 | - | - | - | - | - | - | - | - | - | - | - | - |
| 38217 | Postage & Mailings | 1 | General Cost Inflation | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 | 138 |
| 38912 | Risk Insurance Premium | 1 | General Cost Inflation | 917 | 1,000 | 1,030 | 1,061 | 1,093 | 1,126 | 1,159 | 1,194 | 1,230 | 1,267 | 1,305 | 1,344 | 1,384 |
| 38922 | Travel & Training | 1 | General Cost Inflation | 95 | 1,400 | 1,442 | 1,485 | 1,530 | 1,576 | 1,623 | 1,672 | 1,722 | 1,773 | 1,827 | 1,881 | 1,938 |
| 38924 | Dues & Memberships | 1 | General Cost Inflation | 2,750 | 2,600 | 2,678 | 2,758 | 2,841 | 2,926 | 3,014 | 3,105 | 3,198 | 3,294 | 3,392 | 3,494 | 3,599 |
| 38951 | Printing | 1 | General Cost Inflation | 831 | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Future Operational Needs** | | | | | | | | | | | | | | | |
| 22531-64 | Wastewater Manager | 1 | General Cost Inflation | - | - | 33,424 | 34,426 | 35,459 | 36,523 | 37,618 | 38,747 | 39,909 | 41,107 | 42,340 | 43,610 | 44,918 |
| 21111-54 | Public Works Director | 1 | General Cost Inflation | - | - | 19,271 | 19,849 | 20,445 | 21,058 | 21,690 | 22,341 | 23,011 | 23,701 | 24,412 | 25,145 | 25,899 |
| 22531-64 | Assistant Director Utilities | 1 | General Cost Inflation | - | - | 32,692 | 33,673 | 34,683 | 35,724 | 36,795 | 37,899 | 39,036 | 40,207 | 41,414 | 42,656 | 43,936 |
| 21111-54 | Business Manager | 1 | General Cost Inflation | - | - | 7,220 | 7,437 | 7,660 | 7,890 | 8,127 | 8,370 | 8,621 | 8,880 | 9,146 | 9,421 | 9,703 |

# City of Surprise
## Stormwater Utility Rate Study
### Operating Revenue and Expenditure Forecast

| | | | | Actual | Budget | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection | Projection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21111-54 | Administrative Technician - Business Support | 1 | General Cost Inflation | - | - | 3,394 | 3,496 | 3,601 | 3,709 | 3,820 | 3,934 | 4,052 | 4,174 | 4,299 | 4,428 | 4,561 |
| 21111-54 | Sr. Financial Analyst | 1 | General Cost Inflation | - | - | 4,362 | 4,493 | 4,628 | 4,767 | 4,910 | 5,057 | 5,209 | 5,365 | 5,526 | 5,691 | 5,862 |
| 21111-54 | Business Analyst | 1 | General Cost Inflation | - | - | 5,614 | 5,782 | 5,955 | 6,134 | 6,318 | 6,508 | 6,703 | 6,904 | 7,111 | 7,324 | 7,544 |
| | **Indirect Cost allocation Citywide Staff** | 7 | No Escalation | - | - | 66,800 | 66,800 | 66,800 | 72,280 | 72,280 | 72,280 | 78,960 | 78,960 | 78,960 | 86,280 | 86,280 |
| | **Franchise Fee** | | *Calculated* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Payments in lieu of property tax (PILOT)** | | *Calculated* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22531-64 | Collections & Stormwater Supervisor | 1 | General Cost Inflation | - | - | 49,700 | 51,191 | 52,727 | 54,309 | 55,938 | 57,616 | 59,344 | 61,125 | 62,958 | 64,847 | 66,793 |
| 22531-64 | Stormwater Operator | 1 | General Cost Inflation | - | - | - | - | 84,700 | 87,241 | 89,858 | 92,554 | 95,331 | 98,191 | 101,136 | 104,170 | 107,295 |
| 22531-64 | Stormwater Inspector/Code Compliance | 1 | General Cost Inflation | - | - | - | - | 84,000 | 86,520 | 89,116 | 91,789 | 94,543 | 97,379 | 100,300 | 103,309 | 106,409 |
| 22531-64 | Maint of City owned drywells (3-5/yr) | 1 | General Cost Inflation | - | - | 25,750 | 26,523 | 27,318 | 28,138 | 28,982 | 29,851 | 30,747 | 31,669 | 32,619 | 33,598 | 34,606 |
| 37131 | Uniform Purchase | 1 | General Cost Inflation | - | - | 400 | 412 | 424 | 437 | 450 | 464 | 478 | 492 | 507 | 522 | 538 |
| 37161 | Operational Supplies | 1 | General Cost Inflation | - | - | 5,000 | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 | 5,970 | 6,149 | 6,334 | 6,524 | 6,720 |
| 37162 | Furniture, Fixtures, and Equipment (computers one- | 1 | General Cost Inflation | - | - | 6,000 | - | - | - | - | - | - | - | - | - | - |
| 37165 | Operational Equipment, Tools, and Parts | 1 | General Cost Inflation | - | - | 5,000 | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 | 5,970 | 6,149 | 6,334 | 6,524 | 6,720 |
| 37193 | Safety & First Aid Supplies | 1 | General Cost Inflation | - | - | 2,000 | 2,060 | 2,122 | 2,185 | 2,251 | 2,319 | 2,388 | 2,460 | 2,534 | 2,610 | 2,688 |
| 37211 | Gas & Fuel | 1 | General Cost Inflation | - | - | 6,000 | 6,180 | 6,365 | 6,556 | 6,753 | 6,956 | 7,164 | 7,379 | 7,601 | 7,829 | 8,063 |
| 37212 | Auto Parts & Lubricants | 1 | General Cost Inflation | - | - | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 | 3,360 |
| 37998 | Photography Supplies | 1 | General Cost Inflation | - | - | 100 | 103 | 106 | 109 | 113 | 116 | 119 | 123 | 127 | 130 | 134 |
| 38199 | Professional & Outside Services | 1 | General Cost Inflation | - | - | 10,000 | 10,300 | 10,609 | 10,927 | 11,255 | 11,593 | 11,941 | 12,299 | 12,668 | 13,048 | 13,439 |
| 38216 | Sanitary/Landfill | 1 | General Cost Inflation | - | - | 5,000 | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 | 5,970 | 6,149 | 6,334 | 6,524 | 6,720 |
| 38221 | Cell Phone/Pagers | 1 | General Cost Inflation | - | - | 500 | 515 | 530 | 546 | 563 | 580 | 597 | 615 | 633 | 652 | 672 |
| 38324 | Machinery & Equipment Maintenance | 1 | General Cost Inflation | - | - | 5,000 | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 | 5,970 | 6,149 | 6,334 | 6,524 | 6,720 |
| 38331 | Vehicle Maintenance | 1 | General Cost Inflation | - | - | 3,500 | 3,605 | 3,713 | 3,825 | 3,939 | 4,057 | 4,179 | 4,305 | 4,434 | 4,567 | 4,704 |
| 38351 | Wells/Sewer/Lines/Etc. | 1 | General Cost Inflation | - | - | 30,000 | 30,900 | 31,827 | 32,782 | 33,765 | 34,778 | 35,822 | 36,896 | 38,003 | 39,143 | 40,317 |
| 38521 | Equipment Rental | 1 | General Cost Inflation | - | - | 1,000 | 1,030 | 1,061 | 1,093 | 1,126 | 1,159 | 1,194 | 1,230 | 1,267 | 1,305 | 1,344 |
| 38922 | Travel & Training | 1 | General Cost Inflation | - | - | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 | 3,360 |
| 38991 | Uniform/Laundry Services | 1 | General Cost Inflation | - | - | 2,500 | 2,575 | 2,652 | 2,732 | 2,814 | 2,898 | 2,985 | 3,075 | 3,167 | 3,262 | 3,360 |
| | **Other** | | | | | | | | | | | | | | | |
| | Add'l O&M from CIP | | *From CIP* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total Cash O&M Expenditures** | | | | **$ 450,487** | **$ 600,470** | **$ 953,711** | **$ 974,138** | **$ 1,170,058** | **$ 1,208,636** | **$ 1,242,727** | **$ 1,277,840** | **$ 1,320,687** | **$ 1,357,939** | **$ 1,396,308** | **$ 1,443,149** | **$ 1,483,855** |
| Depreciation Expense in FY2013 | | | $ - | | | | | | | | | | | | | |
| | Depreciation Expense | | Last year's plus annual add'l from CIP | $ - | $ - | $ - | $ 12,771 | $ 28,142 | $ 47,624 | $ 68,073 | $ 100,018 | $ 127,999 | $ 158,790 | $ 192,540 | $ 216,435 | $ 216,435 |
| | | | debt principal payments | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| | | | System Reinvestment Funding | $ - | $ - | $ - | $ 12,771 | $ 28,142 | $ 47,624 | $ 68,073 | $ 100,018 | $ 127,999 | $ 158,790 | $ 192,540 | $ 216,435 | $ 216,435 |
| **TOTAL EXPENSES** | | | | **$ 450,487** | **$ 600,470** | **$ 953,711** | **$ 986,909** | **$ 1,198,201** | **$ 1,256,260** | **$ 1,310,800** | **$ 1,377,858** | **$ 1,448,686** | **$ 1,516,729** | **$ 1,588,848** | **$ 1,659,583** | **$ 1,700,289** |
| | | | *Capital Outlays* | $ 19 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |

# City of Surprise
## Stormwater Utility Rate Study
### Capital Improvement Program

| Project Costs and O&M Impacts in Year: | FY 2016 |
|---|---|

| No | Description | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Fund 21112** | | | | | | | | | | | | |
| 2 | Martin Acres Flood Control | $ - | | | | | | | | | | | |
| 3 | 107th & Union Hills Drainage | - | | | | | | | | | | | |
| 4 | Elm Street & Nash OTS Drainage Improvements | | | | | | | | | | | | |
| 5 | Greasewood Street & Lizard Acres Wash OTS | | | 250,000 | | | | | | | | | |
| 6 | Paradise Lane & El Mirage Rd OTS Drainage | | | 250,000 | 650,000 | | | | | | | | |
| 7 | Santa Fe Drive OTS Drainage Improvements | | | | | 350,000 | | | | | | | |
| 8 | Greenway Rd OTS Drainage Improvements | | | | | 300,000 | | | | | | | |
| 9 | Sections 10 & 11 Drainage & Roadway Improvements | | | | | 150,000 | 350,000 | 250,000 | 250,000 | 250,000 | 250,000 | | |
| 10 | **Additional Projects** | | | | | | | | | | | | |
| 11 | Cactus & Reems | | | | | 50,000 | 250,000 | 250,000 | | | | | |
| 12 | Bell Rd (EB)-Sarival to Reems | | | | | | | | | | | | |
| 13 | Peoria & Litchfield | | | | | 10,000 | 50,000 | 50,000 | | | | | |
| 14 | Peoria & Sarival | | | | | | 25,000 | 125,000 | 125,000 | | | | |
| 15 | Greenway-Litchfield To Bullard | | | | | | 25,000 | 125,000 | 125,000 | | | | |
| 16 | WB Waddell-BT Cotton & 175TH | | | | | | 25,000 | 125,000 | 125,000 | | | | |
| 17 | Cactus & 155th Ave | | | | | | | | | | | | |
| 18 | Cotton Ln-BT Peoria & Greenway | | | | | | 150,000 | 400,000 | 500,000 | 750,000 | 500,000 | 500,000 | 500,000 |
| 19 | Laural Lane & Litchfield Rd | | | | | | | | | | | | |
| 20 | Jerry St & Ironwood | | | | | | | | | 200,000 | 400,000 | | |
| 21 | 211th & Deer Valley | | | | | | | | | | 25,000 | 125,000 | 125,000 |
| 22 | Pinnacle Peak-W of Citrus | | | | | | | | | | 25,000 | 125,000 | 125,000 |
| 23 | 219th & Pinnacle Peak | | | | | | | | | | 25,000 | 125,000 | 125,000 |
| 24 | 183rd & Happy Valley | | | | | | | | | | | | |
| 25 | Enoch-West OF Citrus | | | | | | | | | | | | |
| 26 | NW Cor Peoria/Greer Ranch Pkwy | | | | | | | | | | | | |
| 27 | Cactus Rd between Litchfield and Bullard | | | | | | | | | | | | |
| 28 | Deer Valley Road SPA3 Interceptor Sewer | | | | | | | | | | | | |
| 29 | Acoma & Cotton Lane | | | | | | | | | | | | |
| 30 | Norwich - Citrus to Grand | | | | | | | | | | | | |
| 31 | 152nd @ Acoma | | | | | | | | | | | | |
| 32 | Happy Valley 1/4 mile west of Citrus | | | | | | | | | | | | |
| 33 | Retention Basin south of Ocotillo, East of Litchfield | | | | | | | | | | | | |
| 34 | SEC Litchfield/Greenway | | | 50,000 | 50,000 | | | | | | | | |
| 35 | Autoshow and Cactus | | | | | | | | | | | | |
| 36 | Heritage Park in Marley Park | | | | | | | | | | 50,000 | | |
| 37 | Auto Show Dr-BT Waddell & Cactus | | | | | | | | | | | | |
| 38 | CACTUS & L303 | | | | | | | | | | | | |
| 39 | Cactus and Citrus | | | 15,000 | | | | | | | | | |
| 40 | 151st Avenue and Tierra Buena | | | 35,000 | | | | | | | | | |
| 41 | | | | | | | | | | | | | |
| | **Total Capital Projects** | **$ -** | **$ -** | **$ 600,000** | **$ 700,000** | **$ 860,000** | **$ 875,000** | **$1,325,000** | **$1,125,000** | **$1,200,000** | **$1,275,000** | **$ 875,000** | **$ 875,000** |
| | Projects by Grants / Developer Donations | - | - | - | - | - | - | - | - | - | - | - | - |
| | Projects by Enterprise Fund | - | - | 600,000 | 700,000 | 860,000 | 875,000 | 1,325,000 | 1,125,000 | 1,200,000 | 1,275,000 | 875,000 | 875,000 |

# City of Surprise
## Stormwater Utility Rate Study
### Revenue Requirements Analysis

| Cash Flow Sufficiency Test | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EXPENSES** | | | | | | | | | | | | |
| Cash Operating Expenses | $ 600,470 | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 | $ 1,320,687 | $ 1,357,939 | $ 1,396,308 | $ 1,443,149 | $ 1,483,855 |
| Existing Debt Service | - | - | - | - | - | - | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - | - | - | - | - | - | - |
| Rate Funded Capital | - | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| Additions Required to Meet Operating Fund Balance | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Expenses | $ 600,470 | $ 953,711 | $ 1,624,138 | $ 1,945,058 | $ 2,208,636 | $ 2,492,727 | $ 2,777,840 | $ 2,820,687 | $ 2,857,939 | $ 2,896,308 | $ 2,943,149 | $ 2,983,855 |
| **REVENUES** | | | | | | | | | | | | |
| Rate Revenue | $ 0 | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| Non Rate Revenue | 600,470 | - | - | - | - | - | - | - | - | - | - | - |
| Operating Fund & Debt Reserve Fund Interest Earnings | - | 0 | 2,744 | 2,802 | 3,366 | 2,030 | 3,575 | 3,676 | 3,799 | 3,906 | 4,017 | 4,152 |
| Total Revenue | $ 600,470 | $ 2,053,731 | $ 2,062,455 | $ 2,068,494 | $ 2,075,037 | $ 2,079,682 | $ 2,087,207 | $ 2,093,288 | $ 2,099,391 | $ 2,105,479 | $ 2,111,569 | $ 2,117,684 |
| **NET CASH FLOW (DEFICIENCY)** | **$ 0** | **$ 1,100,020** | **$ 438,317** | **$ 123,435** | **$ (133,599)** | **$ (413,045)** | **$ (690,633)** | **$ (727,399)** | **$ (758,547)** | **$ (790,829)** | **$ (831,579)** | **$ (866,170)** |
| **% of Rate Revenue** | -100.00% | -53.56% | -21.28% | -5.98% | 6.45% | 19.88% | 33.15% | 34.81% | 36.20% | 37.63% | 39.46% | 40.98% |

| Coverage Sufficiency Test - Revenue Bonds | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EXPENSES** | | | | | | | | | | | | |
| Total Cash Operating Expenses (less Capital Outlays) | $ 600,470 | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 | $ 1,320,687 | $ 1,357,939 | $ 1,396,308 | $ 1,443,149 | $ 1,483,855 |
| Revenue Bond Debt Service | - | - | - | - | - | - | - | - | - | - | - | - |
| Revenue Bond Coverage Requirement at 1.25 | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Expenses | $ 600,470 | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 | $ 1,320,687 | $ 1,357,939 | $ 1,396,308 | $ 1,443,149 | $ 1,483,855 |
| **ALLOWABLE REVENUES** | | | | | | | | | | | | |
| Rate Revenue | $ 0 | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| Other Revenue | 600,470 | - | - | - | - | - | - | - | - | - | - | - |
| Interest Earnings - All Funds | - | 0 | 11,000 | 15,580 | 17,007 | 16,066 | 22,143 | 22,263 | 24,021 | 24,101 | 23,484 | 27,405 |
| Total Revenue | $ 600,470 | $ 2,053,731 | $ 2,070,711 | $ 2,081,272 | $ 2,088,678 | $ 2,093,718 | $ 2,105,775 | $ 2,111,876 | $ 2,119,613 | $ 2,125,673 | $ 2,131,036 | $ 2,140,938 |
| Coverage Realized | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **COVERAGE SURPLUS (DEFICIENCY)** | **$ 0** | **$ 1,100,020** | **$ 1,096,573** | **$ 911,213** | **$ 880,042** | **$ 850,991** | **$ 827,935** | **$ 791,189** | **$ 761,674** | **$ 729,365** | **$ 687,888** | **$ 657,084** |

# City of Surprise
## Stormwater Utility Rate Study
### Revenue Requirements Analysis

| Maximum Revenue Deficiency | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sufficiency Test Driving the Deficiency | *None* | *None* | *None* | *None* | *Cash* | *Cash* | *Cash* | *Cash* | *Cash* | *Cash* | *Cash* | *Cash* |
| Maximum Deficiency From Tests | $ - | $ - | $ - | $ - | $ 133,599 | $ 413,045 | $ 690,633 | $ 727,399 | $ 758,547 | $ 790,829 | $ 831,579 | $ 866,170 |
| less: Net Revenue From Prior Rate Increases | - | - | - | - | - | - | (781,362) | (783,605) | (785,847) | (788,090) | (899,003) | (901,554) |
| Revenue Deficiency | $ - | $ - | $ - | $ - | $ 133,599 | $ 413,045 | $ - | $ - | $ - | $ 2,740 | $ - | $ - |
| Plus: Adjustment for State Excise Tax | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total Revenue Deficiency** | **$ -** | **$ -** | **$ -** | **$ -** | **$ 133,599** | **$ 413,045** | **$ -** | **$ -** | **$ -** | **$ 2,740** | **$ -** | **$ -** |

| Rate Increases | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rate Revenue with no Increase | $ 0 | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| Revenues from Prior Rate Increases | - | - | - | - | - | - | 781,362 | 783,605 | 785,847 | 788,090 | 899,003 | 901,554 |
| Rate Revenue Before Rate Increase (Incl. previous increases) | 0 | 2,053,731 | 2,059,711 | 2,065,691 | 2,071,672 | 2,077,652 | 2,864,994 | 2,873,217 | 2,881,439 | 2,889,662 | 3,006,555 | 3,015,086 |
| Required Annual Rate Increase | 0.00% | 0.00% | 0.00% | 0.00% | 6.45% | 19.88% | 0.00% | 0.00% | 0.00% | 0.09% | 0.00% | 0.00% |
| Number of Months New Rates Will Be In Effect | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| *Info: Percentage Increase to Generate Required Revenue* | *0.00%* | *0.00%* | *0.00%* | *0.00%* | *6.45%* | *19.88%* | *0.00%* | *0.00%* | *0.00%* | *0.09%* | *0.00%* | *0.00%* |
| **Policy Induced Rate Increases** | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 37.50% | | | | 3.75% | | |
| **ANNUAL RATE INCREASE** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **37.50%** | **0.00%** | **0.00%** | **0.00%** | **3.75%** | **0.00%** | **0.00%** |
| **CUMULATIVE RATE INCREASE** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **0.00%** | **37.50%** | **37.50%** | **37.50%** | **37.50%** | **42.66%** | **42.66%** | **42.66%** |

| Impacts of Rate Increases | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rate Revenues After Rate Increase | $ 0 | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,856,771 | $ 2,864,994 | $ 2,873,217 | $ 2,881,439 | $ 2,998,024 | $ 3,006,555 | $ 3,015,086 |
| Full Year Rate Revenues After Rate Increase | *0* | *2,053,731* | *2,059,711* | *2,065,691* | *2,071,672* | *2,856,771* | *2,864,994* | *2,873,217* | *2,881,439* | *2,998,024* | *3,006,555* | *3,015,086* |
| Additional State Taxes Due to Rate Increases | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Cash Flow After Rate Increase | 0 | 1,100,020 | 438,317 | 123,435 | (133,599) | 366,074 | 90,729 | 56,206 | 27,300 | 105,623 | 67,424 | 35,383 |
| Coverage After Rate Increase | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

# City of Surprise
## Stormwater Utility Rate Study
### Fund Activity

| Funds | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **STORMWATER OPERATIONS FUND** | | | | | | | | | | | | |
| Beginning Balance | $ - | $ 0 | $ 274,355 | $ 280,232 | $ 336,592 | $ 202,994 | $ 357,497 | $ 367,598 | $ 379,924 | $ 390,640 | $ 401,678 | $ 415,152 |
| plus: Net Cash Flow after Rate Increase | 0 | 1,100,020 | 438,317 | 123,435 | (133,599) | 366,074 | 90,729 | 56,206 | 27,300 | 105,623 | 67,424 | 35,383 |
| less: Transfer of Surplus to Capital Fund | - | (825,665) | (432,440) | (67,075) | - | (211,571) | (80,628) | (43,880) | (16,584) | (94,585) | (53,949) | (23,673) |
| **Ending Balance** | **$ 0** | **$ 274,355** | **$ 280,232** | **$ 336,592** | **$ 202,994** | **$ 357,497** | **$ 367,598** | **$ 379,924** | **$ 390,640** | **$ 401,678** | **$ 415,152** | **$ 426,862** |
| *Minimum Target Balance* | *$ 98,707* | *$ 156,774* | *$ 160,132* | *$ 192,338* | *$ 198,680* | *$ 204,284* | *$ 210,056* | *$ 217,099* | *$ 223,223* | *$ 229,530* | *$ 237,230* | *$ 243,921* |
| *Maximum Funds to be Kept as Operating Reserves* | *$ 172,738* | *$ 274,355* | *$ 280,232* | *$ 336,592* | *$ 347,690* | *$ 357,497* | *$ 367,598* | *$ 379,924* | *$ 390,640* | *$ 401,678* | *$ 415,152* | *$ 426,862* |
| *Info: No of Days of Cash Operating Expenses* | *0* | *105* | *105* | *105* | *61* | *105* | *105* | *105* | *105* | *105* | *105* | *105* |
| **OPERATIONS FUND - CAPITAL PORTION** | | | | | | | | | | | | |
| Beginning Balance | $ - | $ - | $ 825,665 | $ 1,277,800 | $ 1,364,095 | $ 1,403,638 | $ 1,856,804 | $ 1,858,752 | $ 2,022,163 | $ 2,019,433 | $ 1,946,708 | $ 2,325,397 |
| plus: Rate Funded Capital | - | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| plus: Transfers from Operating Fund | - | 825,665 | 432,440 | 67,075 | - | 211,571 | 80,628 | 43,880 | 16,584 | 94,585 | 53,949 | 23,673 |
| plus: Grants/ Donations/ CIAC | - | - | - | - | - | - | - | - | - | - | - | - |
| plus: Additional Proceeds (Costs) | - | - | - | - | - | - | - | - | - | - | - | - |
| plus: Revenue Bond Proceeds | - | - | - | - | - | - | - | - | - | - | - | - |
| plus: Other Loans | - | - | - | - | - | - | - | - | - | - | - | - |
| plus: Other Low Interest Loan Proceeds | - | - | - | - | - | - | - | - | - | - | - | - |
| plus: Interest Earnings | - | - | 8,257 | 12,778 | 13,641 | 14,036 | 18,568 | 18,588 | 20,222 | 20,194 | 19,467 | 23,254 |
| **Total Funding Sources** | **$ -** | **$ 825,665** | **$ 1,916,362** | **$ 2,132,653** | **$ 2,377,736** | **$ 2,879,246** | **$ 3,456,000** | **$ 3,421,219** | **$ 3,558,969** | **$ 3,634,212** | **$ 3,520,124** | **$ 3,872,324** |
| less: Capital Expenditures | - | - | (638,562) | (768,557) | (974,098) | (1,022,441) | (1,597,248) | (1,399,056) | (1,539,536) | (1,687,504) | (1,194,727) | (1,232,523) |
| **Ending Capital Fund Balance** | **$ -** | **$ 825,665** | **$ 1,277,800** | **$ 1,364,095** | **$ 1,403,638** | **$ 1,856,804** | **$ 1,858,752** | **$ 2,022,163** | **$ 2,019,433** | **$ 1,946,708** | **$ 2,325,397** | **$ 2,639,801** |
| *Minimum Target Balance* | *$ 200,000* | *$ 200,000* | *$ 212,771* | *$ 228,142* | *$ 247,624* | *$ 268,073* | *$ 300,018* | *$ 327,999* | *$ 358,790* | *$ 392,540* | *$ 416,435* | *$ 441,085* |
| **DEBT RESERVE** | | | | | | | | | | | | |
| **New Debt** | | | | | | | | | | | | |
| Beginning Balance | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| plus: Reserve Funding from New Debt | - | - | - | - | - | - | - | - | - | - | - | - |
| less: Use of Reserves for Debt Service | - | - | - | - | - | - | - | - | - | - | - | - |
| **Ending Balance** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| *Minimum Target Balance* | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |

# City of Surprise
## Stormwater Utility Rate Study
### Equivalent Dwelling Units (EDUs)

| Customer Type | Accounts | Gross Parcel Area | Impervious Surface Area | Chargeable Pervious Area (Ag) | EDUs | |
|---|---|---|---|---|---|---|
| **Residential** | | | | | | |
| Single Family Residential | 43,700 | | | | 43,700 | |
| RV Parks | 3,267 | | | | 3,267 | One bill to be sent to each RV Park based on lot count, up to HOA or owner to alloc |
| | | | | | | (based on 7/2/15 email from David Kohlbeck |
| **Non-Residential** | | | | | | |
| Commercial | 1,869 | 135,587,096 | 135,587,096 | | 39,645 | Commercial (based on Excel file received 5/21) |
| Agricultural | 10 | 139,479,120 | 6,973,956 | 132,505,164 | 5,914 | |
| Other | - | - | - | | - | |
| **Subtotal** | 48,846 | 275,066,216 | 142,561,052 | 132,505,164 | **92,526** | |
| **Less:** EDU Lost to Credits | | | | | **(15,858)** | |
| **Total Chargeable EDUs** | | | | | **76,668** | |

**Notes:** Square feet for 1 EDU is determined by average Single Family Residence

1 EDU = 3,420 sq. ft. of impervious area

Each Single Family Residence is 1 EDU

Commercial and Other Non-Residential customers are charged based on sq. ft. of Impervious Surface Area

Agricultural is charged based on Impervious Surface Area, plus Chargeable Pervious Area times 10%

RV Dwelling Units are considered 1.00 EDU

Assumed to be 40% of Non-Residential EDUs lost to credits

**Agricultural Lands (based on PDF file received 9/2)**

| | |
|---|---|
| Customer 1 | 1,150 |
| Customer 2 | 229 |
| Customer 3 | 148 |
| Customer 4 | 47 |
| Customer 5 | 283 |
| Customer 6 | 277 |
| Customer 7 | 285 |
| Customer 8 | 72 |
| Customer 9 | 559 |
| Customer 10 | 152 |
| Total Acres | 3,202 |
| Sq ft per Acre | 43,560 |
| **Total Sq Ft** | **139,479,120** |
| Assumed Portion of ISA | 5% |
| Total ISA Sq Ft | 6,973,956 |

| **RV Parks** | **Spaces** |
|---|---|
| MICASA Mobile Homes | 50 |
| Donorma RV Park | 11 |
| Sunflower RV Park | 583 |
| Sunflower RV Park | 557 |
| Hernandez, Antonio | 13 |
| Resendiz, Octavio | 5 |
| C & C Trailer Park | 16 |
| Desertaire **Owner has three parcels** | 16 |
| Desertaire **only 1 designated as commercial** | 15 |
| Happy Trails Comm Assoc | 2,001 |
| **Total RV Parks** | **3,267** |

# City of Surprise
## Stormwater Utility Rate Study
### Credit Calculation

| Expense Allocation | FY 2019 | Base % | Use % | Base $ | Use $ | |
|---|---|---|---|---|---|---|
| Streets ROW | $ 127,592 | 100% | 0% | $ 127,592 | $ - | |
| Streets Street Sweeping | 384,973 | 100% | 0% | 384,973 | - | |
| Sewer Collections | 119,544 | 100% | 0% | 119,544 | - | |
| General Operations | 24,040 | 100% | 0% | 24,040 | - | |
| Future Operational Needs | 513,908 | 50% | 50% | 256,954 | 256,954 | |
| Rate Funded Capital | 775,000 | 50% | 50% | 387,500 | 387,500 | |
| **Total** | **$ 1,945,058** | 67% | 33% | $ 1,300,604 | $ 644,454 | *ok* |

| Credit Alternative #1 | Base | Use | Total | |
|---|---|---|---|---|
| Costs | $ 1,300,604 | $ 644,454 | | |
| Applicable EDUs | 93,334 | 74,951 | | |
| EDU Based Rate | $ 1.16 | $ 0.72 | **$ 1.88** | *Monthly Rate* |
| *Maximum Credit* | | *38%* | | |

| Choose: |
|---|
| Alternative #1 |

| Credit Alternative #2 | Base | Use | Total | |
|---|---|---|---|---|
| Costs | $ 1,300,604 | $ 644,454 | | |
| Applicable EDUs | | 74,951 | | |
| Accounts | 49,273 | | | |
| Account / EDU Based Rate | $ 2.20 | $ 0.72 | **$ 2.92** | *Monthly Rate* |
| *Maximum Credit* | | *$ 0.72* | | |

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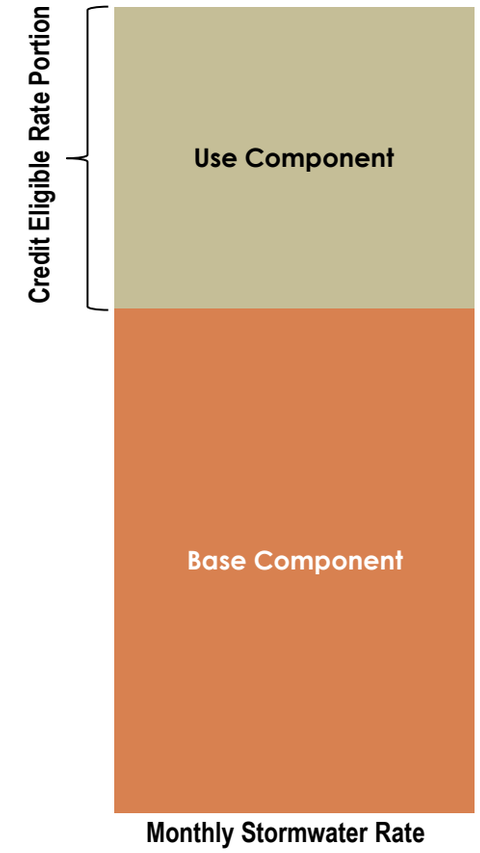
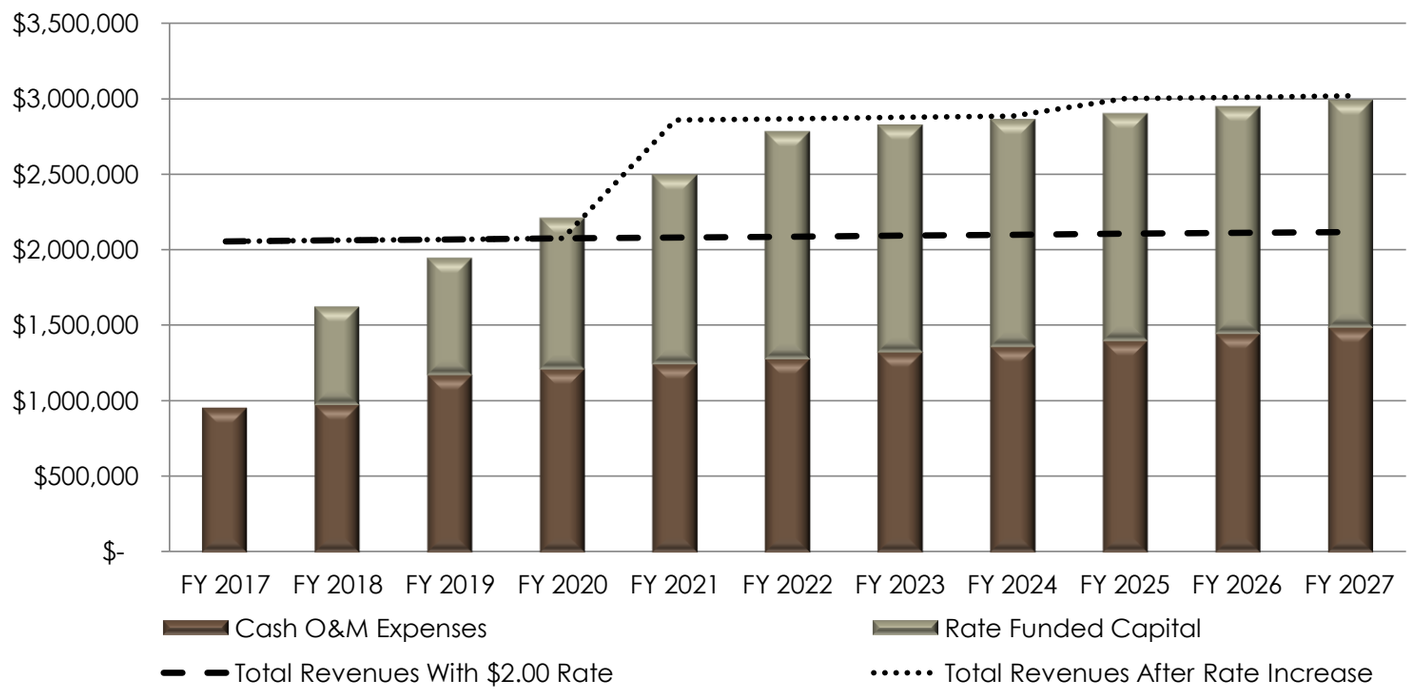
| | 1 |
| 38% | 9 |
| 63% | 15 |



# City of Surprise
## Stormwater Utility Rate Study
### Capital Funding Analysis

| Summary of Expenditures | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAPITAL PROJECTS** | | | | | | | | | | | | |
| Improvement Upgrades & Expansions | $ - | $ - | $ 319,281 | $ 384,279 | $ 487,049 | $ 511,221 | $ 798,624 | $ 699,528 | $ 769,768 | $ 843,752 | $ 597,364 | $ 616,261 |
| Repairs and Replacements | - | - | 319,281 | 384,279 | 487,049 | 511,221 | 798,624 | 699,528 | 769,768 | 843,752 | 597,364 | 616,261 |
| **TOTAL CAPITAL EXPENDITURES** | **$ -** | **$ -** | **$ 638,562** | **$ 768,557** | **$ 974,098** | **$ 1,022,441** | **$ 1,597,248** | **$ 1,399,056** | **$ 1,539,536** | **$ 1,687,504** | **$ 1,194,727** | **$ 1,232,523** |

| Capital Financing Plan | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | FY2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Additional Proceeds (Costs) | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Project Specific CIAC | - | - | - | - | - | - | - | - | - | - | - | - |
| **Project to be Funded** | **$ -** | **$ -** | **$ 638,562** | **$ 768,557** | **$ 974,098** | **$ 1,022,441** | **$ 1,597,248** | **$ 1,399,056** | **$ 1,539,536** | **$ 1,687,504** | **$ 1,194,727** | **$ 1,232,523** |
| **OTHER FUNDING SOURCES** | | | | | | | | | | | | |
| Other Outside Sources | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Rate Funded System Reinvestment | - | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| Connection Fee Revenue Towards Capital | - | - | - | - | - | - | - | - | - | - | - | - |
| Other Loans | - | - | - | - | - | - | - | - | - | - | - | - |
| Low Interest Loans | - | - | - | - | - | - | - | - | - | - | - | - |
| Revenue Bond Proceeds | - | - | - | - | - | - | - | - | - | - | - | - |
| **TOTAL CAPITAL RESOURCES** | **$ -** | **$ -** | **$ 650,000** | **$ 775,000** | **$ 1,000,000** | **$ 1,250,000** | **$ 1,500,000** | **$ 1,500,000** | **$ 1,500,000** | **$ 1,500,000** | **$ 1,500,000** | **$ 1,500,000** |
| *Info: Working Capital Contingency Deficit* | ***(200,000)*** | - | - | - | - | - | - | - | - | - | - | - |

| | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 | FY 2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cash O&M Expenses | $ 953,711 | $ 974,138 | $ 1,170,058 | $ 1,208,636 | $ 1,242,727 | $ 1,277,840 | $ 1,320,687 | $ 1,357,939 | $ 1,396,308 | $ 1,443,149 | $ 1,483,855 |
| Existing Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| New Debt Service | - | - | - | - | - | - | - | - | - | - | - |
| Rate Funded Capital | - | 650,000 | 775,000 | 1,000,000 | 1,250,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| Additions Required to Meet Operating F | - | - | - | - | - | - | - | - | - | - | - |
| **Total Expenses** | **$ 953,711** | **$ 1,624,138** | **$ 1,945,058** | **$ 2,208,636** | **$ 2,492,727** | **$ 2,777,840** | **$ 2,820,687** | **$ 2,857,939** | **$ 2,896,308** | **$ 2,943,149** | **$ 2,983,855** |
| | | | | | | | | | | | |
| Rate Revenues Under Existing Rates | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,077,652 | $ 2,083,632 | $ 2,089,612 | $ 2,095,592 | $ 2,101,572 | $ 2,107,553 | $ 2,113,533 |
| Non-Rate Revenues | 0 | 2,744 | 2,802 | 3,366 | 2,030 | 3,575 | 3,676 | 3,799 | 3,906 | 4,017 | 4,152 |
| **Total Revenues With $2.00 Rate** | **$ 2,053,731** | **$ 2,062,455** | **$ 2,068,494** | **$ 2,075,037** | **$ 2,079,682** | **$ 2,087,207** | **$ 2,093,288** | **$ 2,099,391** | **$ 2,105,479** | **$ 2,111,569** | **$ 2,117,684** |
| | | | | | | | | | | | |
| Rate Revenues After Rate Increase | $ 2,053,731 | $ 2,059,711 | $ 2,065,691 | $ 2,071,672 | $ 2,856,771 | $ 2,864,994 | $ 2,873,217 | $ 2,881,439 | $ 2,998,024 | $ 3,006,555 | $ 3,015,086 |
| **Total Revenues After Rate Increase** | **$ 2,053,731** | **$ 2,062,455** | **$ 2,068,494** | **$ 2,075,037** | **$ 2,858,801** | **$ 2,868,569** | **$ 2,876,893** | **$ 2,885,239** | **$ 3,001,931** | **$ 3,010,572** | **$ 3,019,238** |