



MAYOR & COUNCIL MEMORANDUM

September 4, 2019

Subject: Establishment of a Green Stormwater Infrastructure Fund, Program and Fee (City Wide)

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Issue – Time is reserved in Study Session to allow the Mayor and Council to discuss a proposal to establish a Green Stormwater Infrastructure Fund, Program and Fee, prepared by staff as directed at the January 23, 2018, Study Session.

City Manager's Office Recommendation – The City Manager recommends that the Mayor and Council discuss and provide direction on the proposal. If the proposal is supported, it is recommended to implement the fee, fund, and program for a pilot period of three years, with an option to continue the program after that time.

Background – At the Study Session of January 23, 2018, the Mayor and Council considered three options for expanding/enhancing the level of service the City of Tucson provides for stormwater management. The options included optimizing the status quo, establishing a Green Stormwater Infrastructure (GSI) Fund and Fee, and establishing an enterprise-funded stormwater utility. At that time, the Mayor and Council directed staff to return with a detailed proposal for a GSI Fund and Fee. The general parameters included assessing a fee of \$1 to \$3 per month to water meter connections to be collected through the existing utility billing system, raising annual revenues of approximately \$3 to \$5 million.

Present Consideration(s) – Staff has prepared a report that details a GSI Fee, Fund, and Program with the following characteristics:

- Program Goals:
 1. Use stormwater runoff to significantly and sustainably expand Tucson's urban tree canopy without substantially increasing potable water use
 2. Reduce flooding using surface-level, vegetated stormwater retention features distributed throughout neighborhoods, streets, and public areas
 3. Reduce urban heat island effects
 4. Improve air and water quality
 5. Shade streets and sidewalks to support bicycling, walking, and transit use
 6. Beautify neighborhoods and commercial areas
 7. Benefit urban wildlife
- Fee on Utility Services Statement (water/sewer/garbage) to raise revenues of approximately \$3 million, assessed one of two ways:
 1. Flat fee to water meter connections based on customer class:
 - \$1.50/month for Residential customers
 - \$3.00/month for Commercial and Multifamily customers
 - Non-water customers would be assessed \$1.50 or \$3.00 per month based on their customer class for environmental services/sewer.

2. Fee based on water consumption:
 - 13 cents per Ccf (100 cubic feet) of water use for all Tucson Water customers
 - Average fee of \$1.04/month for Residential customers (average residential customer uses 8 Ccf/month)
 - Non-water customers would be assessed a fee based on average use for their customer class
- Fee assessed to City residents only
- 50% fee discount to customers in Tucson Water's Low Income Bill Assistance Program
- Approximately \$3 million in annual revenues, to be dedicated to:
 1. GSI Program Administration, Planning, Outreach (\$320,000/year)
 2. Maintenance of City-owned GSI features (\$380,000/year)
 3. Construction of new public GSI features (\$2,300,000/year)
 - Leveraging additional value from other projects such as:
 - Parks and Connections approved projects (e.g. Park parking lot retrofit, Bike Boulevard GSI)
 - Pima County Regional Flood Control District projects within the City (e.g. adding GSI features to larger basin projects)
 - Public infrastructure portions of privately funded projects (e.g. adding GSI to pedestrian right-of-way)
 - Equitable distribution across City Wards
 - Within Wards, prioritized based on:
 - Percentage of heat-vulnerable population
 - Percentage of existing tree canopy
 - Known flooding issues
 - Cost effectiveness

Staff recommends implementing the GSI program as a pilot for three years, with a requirement to return to Mayor and Council after this time for a review of the program, and a determination if it should continue.

Staff also recommends that the GSI fund absorb and continue, in some form, the existing Neighborhood-scale Stormwater Harvesting Program currently administered by Tucson Water, by which neighborhoods can work with their Ward office to develop GSI project ideas and apply for grant funding.

A complete program analysis and proposal is included in the attached *Green Stormwater Infrastructure Fund Proposal* (Attachment A). The following discussion focuses on key issues related to the justification for and development and implementation of a GSI Fee, Fund, and Program. It also highlights work that staff has completed to provide clarity as to what, specifically, could be achieved by this program.

Establishment of a Green Stormwater Infrastructure Fund, Program and Fee (City Wide)*Maintenance Needs*

The City has installed hundreds of GSI features on streets and at public facilities over the past 20 years. Most of these features are not being properly maintained; they are a common source of complaints from residents. Lack of maintenance resources is also commonly cited by residents and City staff alike as a reason for not implementing new GSI in neighborhood traffic calming, bicycle, and pedestrian projects.

Tucson Water staff conducted an inventory of all known traffic circles, medians, chicanes (curb extensions or “bump outs”) on City neighborhood streets. Features were catalogued, photographed, and their condition assessed in a digital geographic information system. Staff identified 418 features, of which an estimated 300 could potentially capture and infiltrate stormwater runoff if properly maintained. The maintenance responsibility for these features has been delegated to neighborhoods and residents, as the City has focused its maintenance dollars on roadway asphalt and on landscaping on major streets. Staff estimates that the cost of rehabilitating and maintaining these 300 existing GSI features would be \$380,000 in Year One, and \$296,000 annually after that. The GSI Fund would pay for this maintenance, as well as maintenance of any new GSI features installed. Work would be completed by City crews and/or private contractors under the supervision of GSI Program staff.

Issues Addressed by and Benefits of GSI Fund

In addition to the maintenance issue, the GSI Fund would help to address the following:

- Strategically deploying GSI in City projects across departments to address issues like localized flooding, expanding tree canopy in targeted areas
- Significantly and sustainably increasing the City’s urban forest without substantially increasing potable water use
- Leveraging additional value out of Pima County Regional Flood Control District investments in the City
- Reducing some flooding issues identified in the Tucson Stormwater Management Study using green methods that provide multiple community benefits
- Developing standards and best practices that may support City departments and the private sector in effectively complying with the City’s Commercial Rainwater Harvesting Ordinance

Nonprofit American Rivers commissioned a study (Attachment B) of the economic benefits of GSI in Tucson, based on an early draft of the GSI Fund proposal. This study projects an overall cost savings for taxpayers based on using green stormwater infrastructure as an alternative to “gray” stormwater infrastructure like pipes, drains, culverts, etc. It also cites an estimated return on investment of \$2 to \$4 for every dollar invested in GSI, based on the environmental and social benefits it provides.

Establishment of a Green Stormwater Infrastructure Fund, Program and Fee (City Wide)*Planning and Prioritization of Capital Projects*

More than two thirds of the GSI Fund (\$2.3 million) would be allocated to capital projects under this proposal. Staff has prepared a list of 86 potential GSI sites, totaling over \$31 million that could be constructed over approximately 15 years at this level of funding (see Appendices A-C of *Green Stormwater Infrastructure Fund Proposal*). These projects primarily fall into four categories:

1. GSI features added to parking lot improvements in City parks, planned in the Proposition 407 Parks and Connections Bond
2. GSI features added to City parks' non-parking lot areas (includes parks both in and out of Prop 407)
3. GSI features added to Bicycle Boulevard projects planned in the Proposition 407 Bond
4. GSI features to be built on vacant or underutilized lots, both privately and publicly owned

Sample descriptions of these types of projects are found in Appendix B of the *Green Stormwater Infrastructure Fund Proposal*. Staff focused on these four types to illustrate a new approach for GSI for the City, which moves towards larger projects that can retain greater amounts of stormwater and add more green space for less investment, and which capitalizes on the efficiency of "piggy-backing" on existing planned capital projects. For example, it is much more cost-effective to conduct the grading, planting, and hardscape installation for GSI features in a parking lot when it is already being reconstructed.

Staff prioritized the 86 projects using criteria including vulnerability of the community to extreme heat events, location within the nine watersheds prioritized by TDOT for flood control improvements, tree canopy levels below 10%, and cost effectiveness. Maps and a prioritized listing of these projects are in the Appendices of the proposal.

It is important to note that the list of projects and the prioritization exercise were generated to provide a conceptual picture of the type, scale, and extent of GSI that could be installed across the City given the proposed budget. They are not meant to serve as a firm list of projects and priorities.

Governance

A governance structure similar to that of the Tucson Water Conservation Fund budget is proposed. Staff would develop an annual multi-year CIP and Operating Budget for the GSI program, with oversight and input from a citizen's advisory committee. The CIP, Capital and Operating Budgets would be subject to Mayor and Council review and approval.

Establishment of a Green Stormwater Infrastructure Fund, Program and Fee (City Wide)Equity

The GSI Fund would address the greatest barrier to equity in GSI installation today: a lack of maintenance funding for the neighborhoods which could most benefit from it. It is proposed to address equity issues in three ways:

1. Where GSI is installed: Assuming equal distribution of new projects across Wards, GSI can be prioritized within Wards for the most stressed neighborhoods. For example, in its prioritization, staff weighted most heavily the factor of vulnerability to heat stress, at 35% of the overall project score (Attachment A, p.19). This particular measure (generated by Arizona Department of Health Services) prioritizes census blocks with high levels of children under five, adults over 65, adults over 65 living alone, and families and individuals living below the poverty line.
2. How and who installs and maintains GSI: Construction of GSI would be conducted by private contractors, thus creating new job opportunities within the community. Maintenance would be performed by a combination of City crews and private contractors. The GSI program could partner with nonprofit and government organizations to create training programs and partnerships that can open these job opportunities to those in distressed communities and populations, such as veterans and those re-entering the workforce after incarceration. There are several local examples that can be emulated and built upon, such as Downtown Tucson Partnership's contract with Desert Survivors for maintenance of streetscape, and Tucson Water's partnership with Community Food Bank to support and incubate new green entrepreneurial businesses that emerge from and serve under-invested parts of the community. In addition, the GSI program could include community benefit metrics that address these local social and economic goals in its construction and maintenance contracts.
3. Who pays for GSI: It is proposed that those qualified for the City's Low Income Bill Assistance program would receive a 50% discount on the GSI fee. The City has been successful at reaching more and more of those most in need, as enrollment in this program has more than doubled in recent years.

Assessing Fee Inside City Only vs. All Water Customers

It is proposed that the fee be assessed to City residents only. To construct and maintain GSI outside City limits would significantly increase the complexity and expense of program administration given the need for coordination with additional jurisdictions.

Public and Stakeholder Input

City staff created a public online survey to gather feedback on the proposal. It was made available in English (<https://tucsonaz.gov/survey7707>) and Spanish (<https://tucsonaz.gov/survey7707es>) throughout the month of August, and will remain open until the date of this Study Session item. The survey was promoted extensively on City social media accounts and web pages, and was shared with the media by a release as well as direct outreach. It was also shared widely via email and newsletters of other agencies and organizations. As of August 12, more than 400 City residents had completed the survey, with 87% indicating that the proposed program "is a valuable use of City resources." The public may view up-to-date results of the survey any time at: https://www.opentownhall.com/portals/310/Issue_7707/survey_responses?scope=all.

Establishment of a Green Stormwater Infrastructure Fund, Program and Fee (City Wide)

City staff also solicited and received input from dozens of stakeholders including neighborhoods, nonprofit organizations, and government agencies (see Attachment C for a list of those who provided written comments and/or participated in stakeholder meetings). All of those who provided comments were supportive of the proposal. Key themes of these comments included:

- Maintenance of existing and new GSI projects is an important priority
- Trees and urban tree canopy should be a primary emphasis of the program, given their well-documented public benefits
- The program should absorb and continue some form of the existing Neighborhood-scale Stormwater Harvesting Program currently administered by Tucson Water, by which neighborhoods can work with their Ward office to develop project ideas and apply for grant funding
- The program should build social capital by partnering with nonprofit groups or agencies that employ members of disadvantaged communities to provide contracted GSI services (maintenance, design, construction)

Plan Tucson Consideration(s) – This proposal addresses sixteen policies in the areas of *Public Safety; Public Health; Water Resources; Energy and Climate Readiness; Green Infrastructure; and Land Use, Transportation, and Urban Design*. These policies are listed in Table 1 of Attachment A, the *Green Stormwater Infrastructure Fund Proposal*.

Financial Considerations – A fee would be issued to City residents via the Utility Services Statement (water/sewer/garbage), per one of the two methods described above. Costs for the average residential customer would range from \$1.04 to \$1.50 per month, depending on the method selected. Revenues under either fee structure are estimated at \$3.1 million per year.

Operating Cost and Maintenance Input – Within a \$3 million budget, \$320,000 is proposed for program administration and \$380,000 is proposed for annual maintenance. As more capital projects are installed over time, it is expected that the maintenance budget will increase over time, with a corresponding decrease in capital budget to stay within available revenues.

Legal Considerations –

Respectfully submitted,



for Michael J. Ortega, P.E.
City Manager

MJO/TT/JBM
Water

Attachments: A. Green Stormwater Infrastructure Fund Proposal
B. Economic Benefits of Investing in GSI in Tucson
C. List of stakeholders engaged