CITY OF BOULDER

COMPREHENSIVE FLOOD AND STORMWATER MASTER PLAN

DRAFT

TECHNICAL MEMORANDUM 11

Financial Considerations

DATE: April 11, 2022

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TABLE OF CONTENTS

1 Introduction

There are many critical factors which may either facilitate or limit the Utility's ability to adequately manage stormwater runoff and mitigate the effects of floods. The Utility requires administrative, planning, engineering, operational, regulatory, and infrastructure management functions that demand a substantial financial investment. Drivers for additional capital requirements include aging infrastructure, escalating construction costs, community values, and new regulations. This Technical Memorandum discusses financial considerations including the types of costs likely to be incurred by the Utility in the future.

Since approval of the 2004 Flood and Stormwater Master Plan, the Utility has completed flood mapping for nearly all of Boulder's 16 major drainageways, constructed major flood improvements on Elmer's Two Mile ($9M), Wonderland Creek ($30M), and Gregory Creek ($735K), among others, and completed 75 percent of remaining flood mitigation studies. These mitigation studies are prepared to identify the preferred flood mitigation projects to be designed and constructed.

In round numbers, the cost to complete the remaining flood mitigation capital improvements across the city's 16 drainageways is roughly $350 million and would require 50-100 years or more to complete. Historic rates of funding combined with time to complete permitting, approval, and community engagement processes, have resulted in completion of a major flood project about every seven to ten years on average.

A public engagement process was conducted during the spring of 2015 in support of the latest Utility Rate Study (Raftelis, 2017). In June 2015, the Water Resources Advisory Board (WRAB) was provided the results of the public engagement process, and the WRAB, followed by the City Council, adopted the following Utility rate guiding principles (Boulder, City of, 2017):

- Be effective in yielding total revenue requirements
- Provide revenue stability and predictability for the utilities
- Fairly allocate the total cost of service across customer classes to attain equity
- Encourage low-impact development to decrease stormwater impacts

2 Funding Sources

Stormwater and flood management are critically important city functions, reflecting the city's standing as a highly flood-prone community. The Utility serves a customer base of 29,579 properties (as of December 31, 2021) and provides a multi-million dollar operational and capital infrastructure program, at about $10 to $15 million annually.

Rates and fees are annually assessed to fund activities of the Utility and to ensure that required reserves are maintained and debt service coverage requirements are met. Adequate reserves are required for bond issues and for the outstanding liability associated with employee leave benefits. The Utility strives to maintain a 25% operating reserve over a six-year planning period. Current reserves are estimated to be about 40% over a six-year planning period. In addition, the Utility also has a $1,050,000 reserve available for the property acquisition program.

Debt service coverage requirements are established as part of the Utility's bond covenants. Planning for issuing debt for projects includes consideration of maintaining coverage ratios as required by bond covenants and maintaining strong bond ratings to keep interest rates and costs low. On an annual basis, the Utility is required, per bond covenant requirements, to generate net revenues (before debt service) equal to 1.25 times its annual debt service requirements. The Utility currently generates net revenues that average about four times this requirement.

In addition to the City's annual review of rates and fees, a financial and rate consulting firm is hired periodically to conduct a comprehensive rate and fee review. The last rate review was completed in 2017 by Raftelis Financial Consultants (Raftelis, 2017). Results of this rate study included a revision to the fee calculation methodology for non-single family residential customers to include a simple fixed charge in addition to a charge for each square foot of impervious area. The fee and rate structure went into effect on January 1, 2018. A comparison of monthly stormwater utility fees for Colorado municipalities is presented in **Figure 11-1.**

Figure 11-1 Monthly Avg 2021 Stormwater Rates Front Range Communities

Funding Sources

The Utility's funding is comprised of service fees, Plant Investment Fees (PIF), bond proceeds, funding for limited purposes from the regional Mile High Flood District (MHFD), and occasional grants, loans, and cost sharing. The charges to commercial, industrial and institutional properties are based on their impervious coverage and gross property area in relation to that of the average conditions present on single-family residential properties. Basically, more heavily developed properties pay more. The charges to non-residential properties vary significantly, as there exists a wide variation in impervious coverage and property area. In total, the charges to customer classes reflect the demands imposed by existing land conditions on the stormwater and flood management infrastructure and associated programs.

Monthly User Fees

Monthly Utility service charges (fees) are the primary source of funding for the Utility. Initially set in 1973 at $1.00/month for residential customers, service charges were intended to recover the costs of administration, operations, maintenance, and system replacement over time, plus construction of additional infrastructure. However, revenue collected in the early years of the Utility was insufficient to fully fund those needs. To address this deficit, service charges were allocated to new construction and General Fund appropriations were used to fund operational programs as the Utility programs were established. To allow the Utility to fully fund its operations and construction, the Utility's service charge rates were increased in 1982, 1987, 1989, 1990, and repeatedly thereafter.

The Utility's current rate methodology consists of a fixed service charge and an area charge which are billed to customers within the city limits. The area charge for single-family residential customers is based on their lot size. All other customers pay an area charge based on the impervious area (driveways, parking lots, etc.) contained on their lot. These fees are codified in the Boulder Revised Code (BRC), under Section 4-20-45 Stormwater and Flood Management Fees. The 2022 fixed service charge for all accounts is $3.53 per month. Residential area charges average $22.00 per month, and owners of all other parcels pay an area charge of $ 0.008005 per square foot of impervious area.

Plant Investment Fees

In 1989, the city adopted a Stormwater and Flood Management Plant Investment Fee (PIF) to assist in the funding of growth or expansion-related facilities for the collection and conveyance of stormwater runoff. The PIF is a one-time fee collected when an annexed, developed, or redeveloped property requires access to flood control or stormwater collection and conveyance infrastructure. From 1989 to 1996, the PIF was calculated in a manner similar to the non-residential monthly user fees. In 1998, the PIF calculation was adjusted to more accurately reflect the wide range of residential development happening in the community. Prior to 1998, residential property paid a PIF using a sliding scale dependent only upon property size. In 2001 this was modified so that each residential property paid a PIF based upon both its calculated runoff coefficient and property size.

The PIFs are calculated based upon the new replacement value of the Utility assets less depreciation and are found in BRC 4-20-46 Stormwater and Flood Management Utility Plant Investment Fee. The PIF is currently set at $2.39/square foot of impervious area (2022). As the city undergoes less new development, it is anticipated that these fees will diminish in their overall contribution to revenue.

Bonds

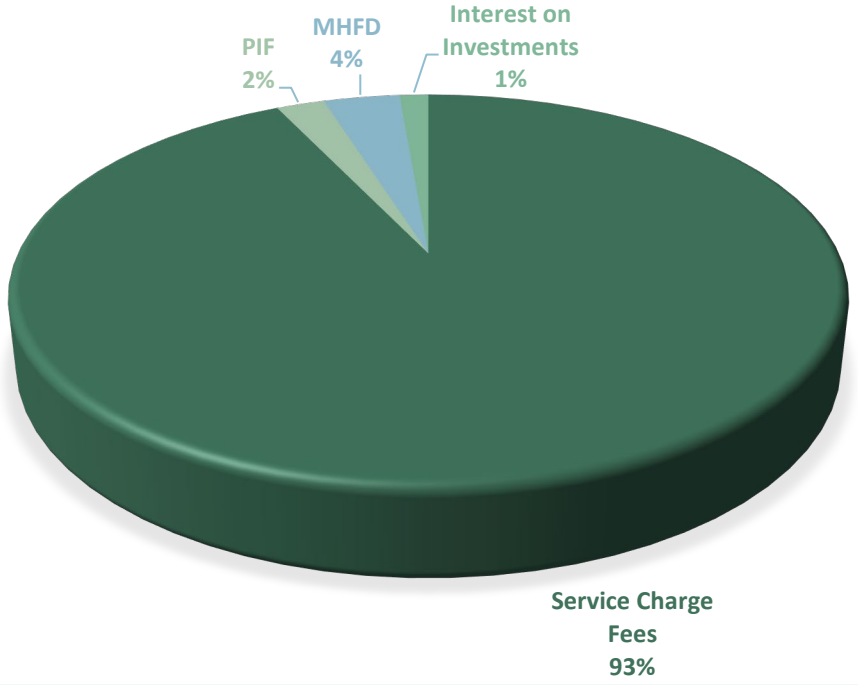
The Utility issues bonds to pay for major flood improvements that typically have long useful life, so that the debt can be spread out over several years (usually over a 20-year period). The Utility continues to maintain a high bond rating, most recently Aa1 from Moody's and AAA from Standard and Poor's. The ratings report for the 2018 Water and Sewer Bonds stated this is due in part to "strong fiscal management" and maintaining sufficient reserves.

Other Funding Sources

The Utility is also supported by funding from the MHFD for certain qualifying expenditures. MHFD funds are generated by a special mill levy (property tax), with the objective that they be returned proportionally to their geographic area of origin over time. Apportionment of the funds across the MHFD is not required to reflect revenue origin in any given year. It is estimated that funding from MHFD will average between $1M to $2M annually in the next six years.

A general breakdown of funding sources is shown in **Figure 11-2** below.

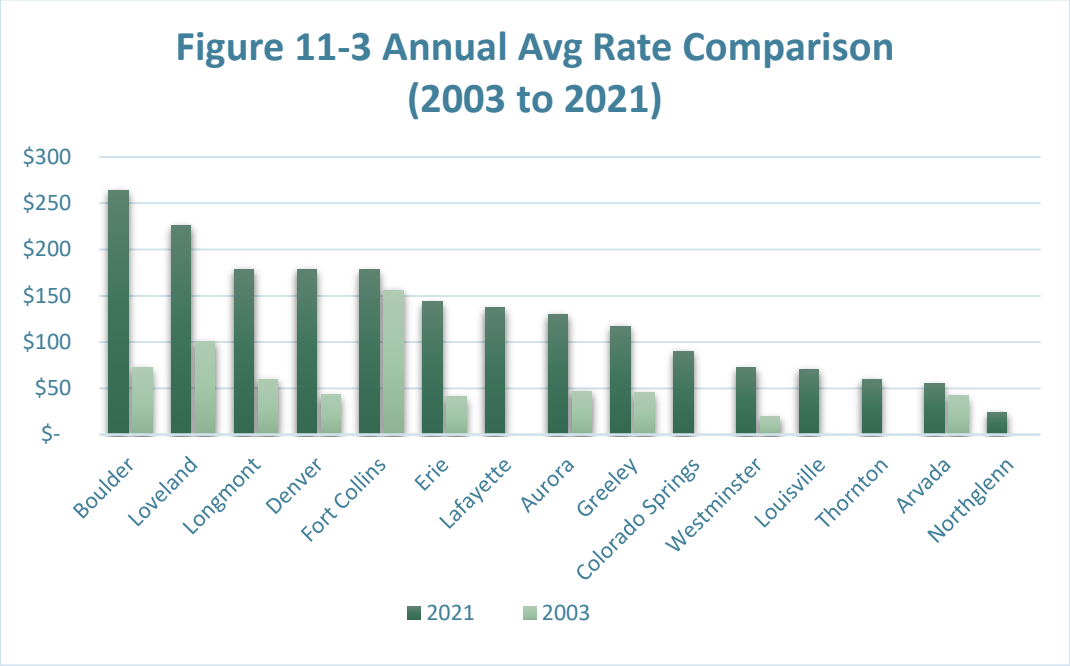
FIGURE 11-2 SOURCES OF FUNDS



Rate Comparisons & Methodologies

The current method of apportioning the Utility's costs across the community supports the program's initial focus on stormwater collection and conveyance and flood management. Although refinements have been enacted from time to time, the funding structure and resulting cost apportionment have remained relatively constant. Increases to service charges and PIF have kept pace with program growth.

Residential service fees in Boulder have increased significantly since the 2013 flood. **Figure 11-3** provides a comparison of Colorado-based programs and shows that Boulder, followed by Loveland, Longmont, Denver, and Fort Collins have the highest flood utility fees in comparison with other Front Range municipalities. In comparison, in 2003 Fort Collins had the highest reported average annual residential fee at about $155 per year as they had adjusted their rates following to a major flood event (1997). Over the past two decades, Ft. Collins invested substantial resources into their program, gaining a National Flood Insurance Program Class 2 community designation, which provides a significant reduction in flood insurance premiums for the community's property owners, among other benefits. The 2013 flood in Boulder came 16 years after the 1997 flood in Ft Collins, and the Utility continues to make strides toward financing major flood improvements.



Subsequent to the 2013 floods, Boulder similarly embarked on a program to systematically and consistently raise rates to provide additional flood protection, including mapping and mitigation studies, and construction of flood infrastructure. A one-time, significant rate increase of 75% occurred in 2015 and annual rate increases have averaged about 8% since then. **Figure 11-4** shows the historic Utility rate increases since the previous Comprehensive Flood and Stormwater Utility Master Plan was prepared.

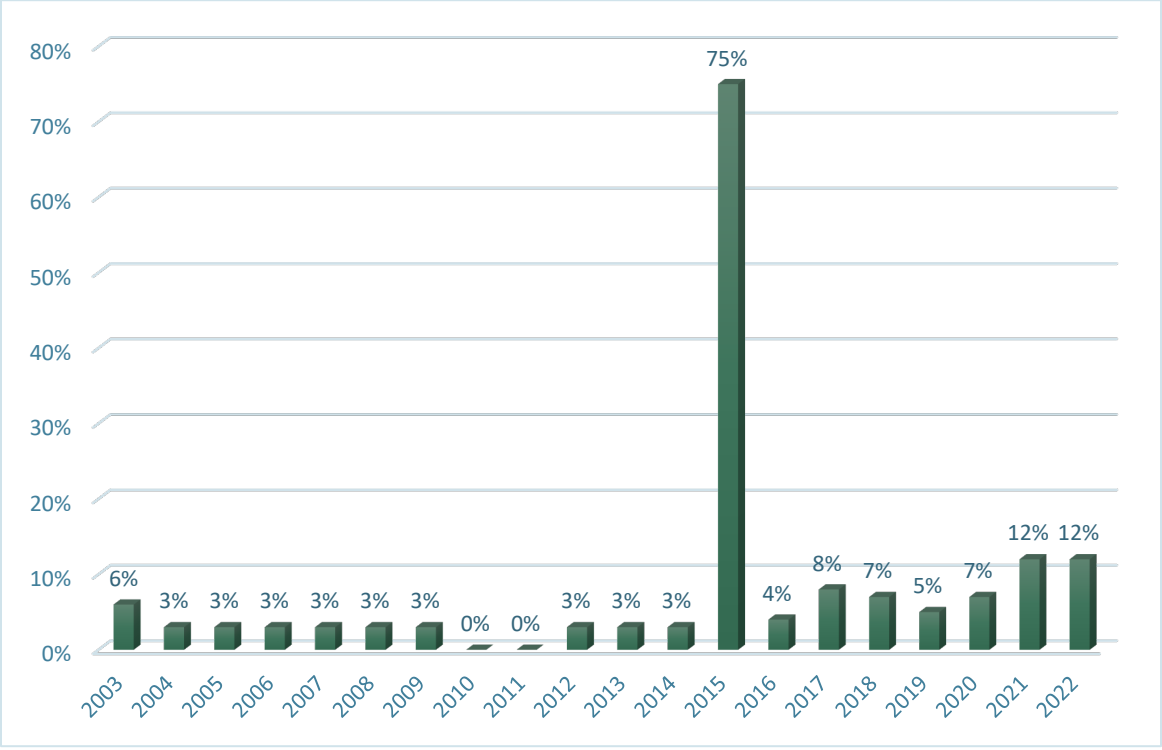


Figure 11-4 | Historic Stormwater and Flood Management Utility Rate Increases by Year

Recent and proposed rate increases are included in **Table 11-1**.

Table 11-1: Stormwater and Flood Utility Recent and Proposed Rate Increases

	2020	2021	2022	2023	2024
Rate Increases (Current / Proposed)	7%	12%	12%	12%	12%

Boulder's service charge rate methodology is generally consistent with industry practices. PIFs ensure that over time, new development financially participates in the cost of capital infrastructure that was built in anticipation of the storm and flood management demands created by the increase in impervious surfaces. The basic parameters employed in the Utility's service fee and PIF rate methodologies are impervious area and, to a lesser degree, gross property area. Both factors increase the rate and volume of stormwater runoff, especially in severe storms when the initial mitigating effects of vegetation and soil absorption are overwhelmed.

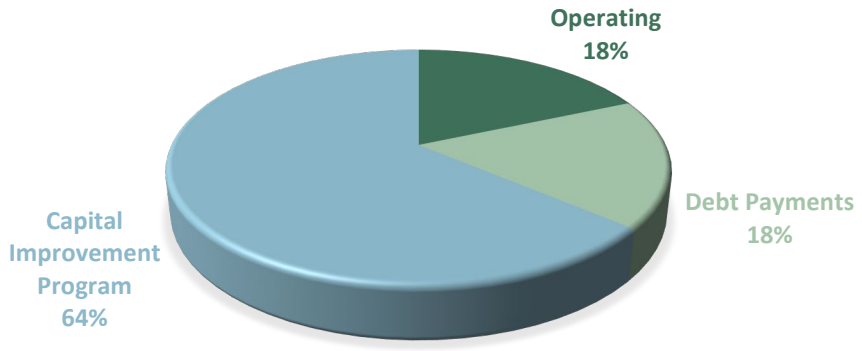
Historically, the Boulder community has consistently supported increases in utility service charges and plant investment fees to meet demonstrated needs. A public engagement process was conducted during the spring of 2015 in support of the latest Utility Rate Study (Raftelis, 2017). It included the city mailing 26,000 postcards to notify customers of the opportunity to provide input. The resulting feedback did not indicate the need to make largescale changes to the rate structures. As such, the Utility has opted to ramp rates up each year; this smoothing rate setting approach is preferred as it avoids large one-time rate increases in any given year which can shock ratepayers. Stepping up service charge rates infrequently also demands that a substantial fund balance be created in the first few years a rate is in place. The accumulated fund balance would subsequently erode as expenditures overtake and eventually exceed revenues.

3 Budget

The Utility's approved budget in 2022 fiscal year was about $17.67M (reference **Table 11-2**). This includes $6.58M for operational expenses, $8.64M for capital expenditures, $0.86M for departmental transfers, and $1.59M for debt service on existing bonds (essentially long-term loans that are paid off over time). Operating and emergency reserves are budgeted at $5.25M. The Utility's fund balance at year's end is projected to be $13.2M.

A summary of the breakdown of the Utility's recent and projected budget/expense categories is shown in **Figure 11-4**, below. The percentages are an average of actuals (2020, 2021); approved (2020); and projected (2023 through 2027) expenses.

FIGURE 11-4 STORMWATER AND FLOOD MANAGEMENT UTILITY PROJECTED OVERALL EXPENSE CATEGORIES



As shown above, the budget is primarily used for capital improvement program expenses. A further breakdown of the Utility's current operating budget/expenses is shown in **Figure 11-5**, below. The percentages are an average of actuals (2020, 2021); approved (2020); and projected (2023 through 2027) operating expenses.

FIGURE 11-5 STORMWATER AND FLOOD MANAGEMENT UTILITY OPERATING EXPENSES (2020 - 2027)

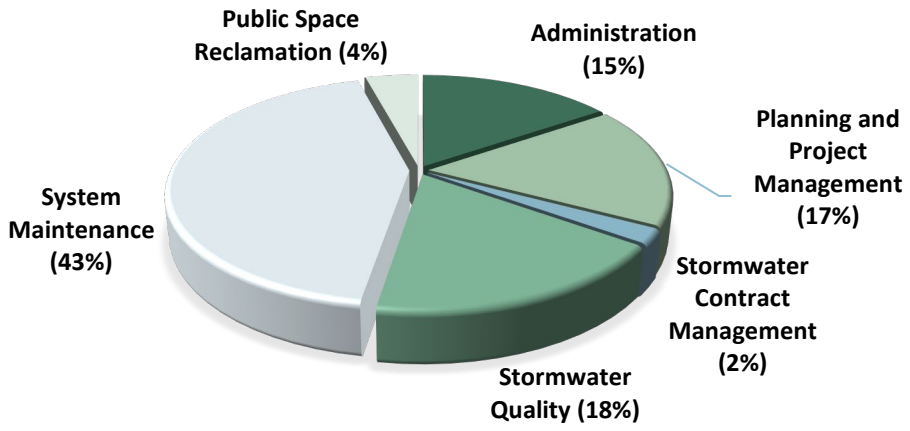


Table 11-2 provides the Stormwater and Flood Management Utility 2022 fund financial information (Source***: Approved 2022 City Budget).***

Table 11-2: Flood and Stormwater Utility Actual and Projected Expenditures

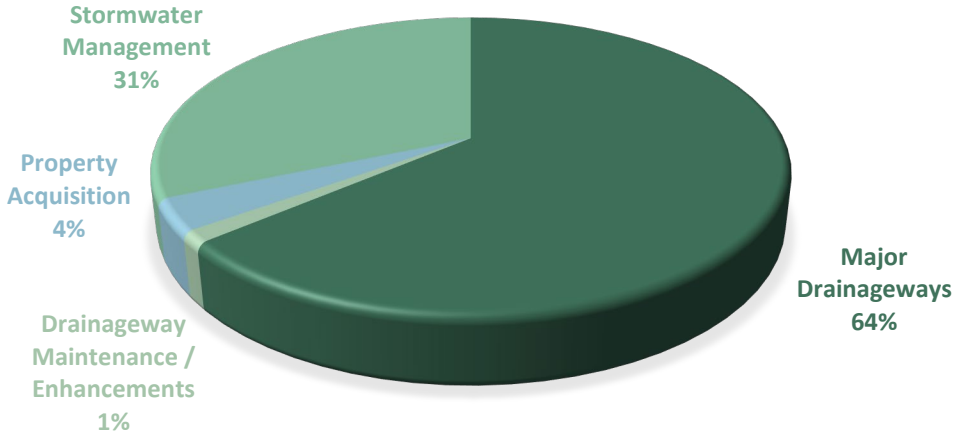
	2020 Actual	2021 Revised	2022 Approved	2023 Projected	2024 Projected	2025 Projected	2026 Projected	2027 Projected
Operating Uses of Funds	$ 4,410,085	$ 5,180,622	$ 6,579,730	$ 6,321,515	$ 6,447,945	$ 6,582,630	$ 6,720,732	$ 6,862,349
Debt Services	$ 1,589,163	$ 1,591,688	$ 1,590,188	$ 1,588,088	$ 10,165,776	$ 10,167,726	$ 10,168,626	$ 10,167,476
Transfers Out	$ 665,902	$ 985,714	$ 857,957	$ 874,794	$ 892,049	$ 914,150	$ 936,826	$ 960,092
Capital Projects**	$ 2,703,640	$ 31,004,029	$ 8,637,500	$ 16,787,500	$ 96,190,700*	$ 4,117,500	$ 4,297,500	$ 5,517,500
Total Uses of Funds	$ 9,368,790	$ 38,762,053	$ 17,665,375	$ 25,571,897	$ 113,696,470	$ 21,782,006	$ 22,123,684	$ 23,507,417
Total Reserves	$ 4,646,321	$ 4,922,021	$ 5,252,168	$ 5,204,138	$ 13,818,235	$ 13,760,296	$ 13,812,848	$ 13,866,443
ENDING FUND BALANCE (after Reserves)	**$ 35,947,434**	**$ 13,309,182**	**$ 13,189,050**	**$ 8,703,734**	**$ 308,573**	**$ 1,347,391**	**$ 3,085,425**	**$ 4,661,370**

* This is predominately capital outlay with bond proceeds.

**Capital projects also include capital carry-over from multi-year projects.

In past years, the CIP program has emphasized major drainageway improvements and property acquisition. Over the next five years, capital expenditures for major drainageways are projected to be the highest outlay (>60%) of the budget followed by stormwater management (>30%), as shown in **Figure 11-6,** below.

FIGURE 11-6 SUMMARY OF PROJECTED CAPITAL EXPENDITURES (2022 - 2027)



4 Funding Analysis

Underlying factors, such as inflation and construction costs, aging of legacy stormwater infrastructure, and new regulations will influence the Utility's future programs. Evolving risks due to climate change uncertainty and the city's sustainability and resilience objectives may justify significant changes in Utility funding. Additional factors that must also be accounted for include: 1) the community's ability and willingness to pay for program expansion and upgrades of both physical systems and operational capability; and 2) practical limits on the Utility's ability to mount and manage the increasing effort required.

Financial Implications and Scenarios

The following provides a starting point for examining the strategic decisions and implications on the future Stormwater and Flood Management Utility. A highly detailed program strategy supported by a refined cost of service analysis is required (often presented in a rate analysis) to provide a current financial template of stormwater and flood management costs and revenues.

Project-Level Funding Scenarios

Flood mitigation projects undergo extensive assessment and refinement to determine location, function, design alternatives and preferred design approaches. Smaller, straightforward projects often go through the Project-Specific Community Process which is a mechanism to construct the projects in a timely manner. Major flood mitigation project approval is more thorough due to the larger impact and costs. These projects benefit from a multi-criteria decision making process (Project Prioritization Framework) to analyze the project portfolio and prioritize projects in keeping with community values.

Master Plans within the city layout strategic objectives that will be pursued at differing levels based upon the amount of additional investment appropriated by the City Council through the annual budget process. The levels of funding for most city projects fall in to three categories: Fiscally Constrained, Action or Vision.

FUNDING SCENARIO	DESCRIPTION
Fiscally Constrained	This funding level provides $6M in operating funds and reflects what is needed to maintain basic Utility services over the short term. Little to no additional investment is made in capital improvement projects and many operations and maintenance activities are deferred.
Action	This funding level provides approximately $34M in annual funds for use on major capital projects during the first five years of the plan. This funding level assumes that some capital improvements are debt-financed so debt service is included. This level was included in the 2022 Budget Book.
Vision	This level of funding adds an estimated $10M in annual funding on top of the Action Plan. This level of funding supports an acceleration of the stormwater and major flood Capital Improvement Program and Utility maintenance. These funds would be realized through a combination of higher than estimated Plant Investment Fees; additional debt-service; one-time federal grants; and/or higher interest on investments.

Fund Balance and Reserves

The Utility maintains an adequate fund balance year-over-year (reference Table 11-3) but the carry-over balance will diminish when large capital projects are constructed. The fund balance in a Utility's accounting unit is a critically important management tool for strategizing the pace and form of the evolution of the program and associated funding. Because a fund balance carries over from one year to the next, the Utility's budgeted income does not have to match projected expenditures in any given year. The fund balance cushions the Utility from the impact of one-time costs incurred in a given year (particularly emergency responses and cash-expensed capital improvement spending), and maintains reserves that are required under the bond covenants.

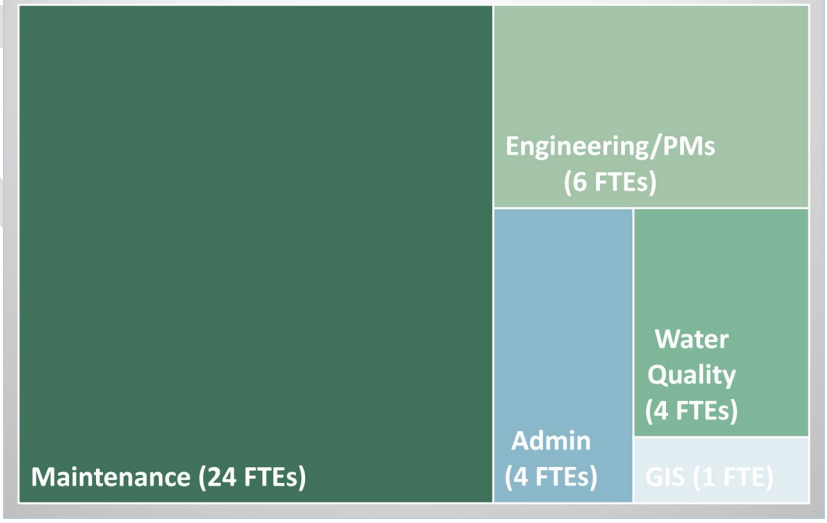
Stormwater and flood management is a recognized "high risk" activity. The Utility must have adequate reserves to deal with evolving, inconsistent, and uncontrollable natural forces. Legacy stormwater and flood management systems constructed decades ago remain in place today in much of the city, but the possibility of extreme storm events and associated design standards have changed. In such an environment, both adequate operational and emergency reserves are prudent along with a fund balance that provides an additional layer of resilience which could be appropriated during a natural disaster.

Staffing Resources

The Utility has budgeted for adequate staffing levels, which are currently set at 39 full-time equivalents (FTEs) (reference **Figure 11-7** for an overview of personnel by Work Group), an increase of 8 FTEs over the prior year. The latest increase, in Stormwater Quality Operations, was in response to increased MS4 permit requirements. However, similar to other utilities across the U.S., there are a number of open, un-filled positions that cause additional workload for the existing staff.

The Utility has budgeted for six project engineers and project managers and current staffing level is three FTEs. The Utility is endeavoring to fill these positions and can use additional consultant support as a stopgap measure. However, the Utility may not be able to advance the planned capital improvement program unless the engineering staffing complement is augmented (i.e., several open positions must be filled).

Figure 11-7 | Full-Time Funded Positions (39 Total) by Work Group



Source: Approved 2022 City Budget

Financial Policy Issues

Stormwater and flood management are critically important city functions, reflecting the city's standing as a highly flood-prone community. The Utility provides a multi-million dollar operational and capital infrastructure program, at about $20 million annually. Four attributes of effective utility funding are:

- Funding must be *stable* over time so a reasoned and efficient program can be delivered
- Funding must be *adequate* to meet the identified needs
- Funding must be sufficiently *flexible* to serve the diverse elements of the program and, especially, changing priorities over time
- Funding must be *equitable* to ensure long-term community acceptance and support

5 Policy Analysis

The level of funding, resources, and tools needed to carry out the required functions of the Utility is a fundamental consideration. Three aspects should be considered:

- How much is currently spent on operations, capital infrastructure improvement, debt financing, allocations to operating and emergency response reserves, and bond debt coverage? Is that level of funding adequate to get the job done?
- What type and amount of funding will be needed in the future to accomplish the goals and objectives set forth in this and the Stormwater Master Plans?
- In the context of future program expectations, management policies, and risk exposure, what is a prudent / appropriate year-end balance in the Utility's accounting fund?

The purpose of funding policy is to provide funding guidance and ensure associated financial management resources are available to carry out the stormwater and flood management program. Policy recommendations in furtherance of these objectives is included below.

Future Funding Methods and Mechanisms

Additional funding methods and financial management tools may be available that could buttress the Utility's funding. These funding methods and mechanisms include:

- Continued use of bonding of capital infrastructure improvements
- Fees in lieu of requirements for on-site construction of special systems or features such as detention
- Impact fees
- Developer extension/latecomer fees
- Contributions and trades
- Federal and state grants and loans
- Cooperative cost-sharing

With the service fees providing over 90% of the Utility's revenue, these remain the singular most stable and robust revenue source.

Grants and Loans

There are continued and new opportunities for federal and state grants and loans, which can augment the Utility's funding capacity. For instance, the Utility recently obtained grant funding from HUD and the Federal Highway Administration for approximately 35 percent of the Wonderland Creek flood mitigation project. Other grants and loans that the city may wish to pursue include:

BRIC Grants

City staff routinely evaluate and apply for federal grants like the Building Resilient Infrastructure and Communities (BRIC) grant through FEMA. BRIC is FEMA's pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program.

IIJA Loans and Grants

The Infrastructure Investment and Jobs Act (IIJA) is a five-year, $1.2 trillion infrastructure package that was signed into law in November 2021. The first-year allotment of the nearly $43.5 billion in total SRF funding that has been provided to the State of Colorado is a total of $121,347,000 with $14,354,000 dedicated to the Clean Water State Revolving Fund (CWSRF). EPA encourages states to strategically use funds from the Bipartisan Infrastructure Law (BIL) as a catalyst to continue building and maintaining a robust project pipeline of SRF projects. EPA recommends states use practices already exemplified in some SRF programs, such as simplifying and streamlining their application process and encouraging integrated and regional approaches (Bipartisan Infrastructure Law | US EPA). High-level outcomes of the law include:

- **WIFIA.** Reauthorizes the Water Infrastructure Finance & Innovation Act (WIFIA) loan program at $50 million annually;
- Provides $1.4 billion over five years for **Sewer Overflow and Stormwater Reuse** municipal grants;
- **Storm Act.** Provides $100 million annually, over five years for the Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) Act. The STORM Act was enacted earlier this year and creates a Resilience Revolving Loan Fund;
- **BRIC Funding.** Makes an additional $1 billion available in grants for the FEMA BRIC Program.

All of these are highly competitive grants or loans, and staff endeavor to apply for these when a project is well positioned for award. Before applying, the city considers how the grant is structured and evaluated and applies when positioned to submit a qualified/competitive proposal. Staff will continue to monitor city projects for funding program applicability and apply when appropriate.

Rate Methodologies

The Utility conducts regular rate methodology reviews and adopts updates as needed. In the case of utilities (e.g., water, wastewater, stormwater,) that provide a commodity or service, utility service charges are based on the ratepayers' service demands which means the more demand or use a customer makes of the services, the more they should pay.

Service charges can also be augmented with modifications and other funding methods. Similar to the city, some utilities use a combination of a fixed base charge per account with variable charges that reflect differences in service demands across customer classes (e.g., single-family residential versus commercial, industrial, and institutional groups). Fixed base charges may also vary among different classes of customers. Many stormwater utilities provide a system of credits and offsets against service charges to recognize unusual property conditions or activities that reduce the demands imposed on the utility program and facilities and its cost of service.

Data associated with each class of customer, and even individual customers, can be manipulated in various ways in a service charge calculation. Over eighty percent (80%) of stormwater utilities use impervious coverage as the primary, or even sole, parameter for calculating stormwater service charges. Some have just one customer class encompassing all single-family residences. Others group residential customers in tiers. Customers may be grouped in a few classes, or several dozen.

Rather than measuring or estimating impervious area, the property condition is sometimes represented by "imperviousness" or "intensity of development". Impervious*ness* requires some mechanism for quantifying that property condition, often involving the gross area of the property as well as its impervious coverage. Some methodologies incorporate both the gross area and the impervious area in a formula to calculate the overall service demand and charge. Intensity of development rate methodologies rely on qualitative descriptors of property conditions, lumping similar properties into customer classes characterized as "heavily developed" or "lightly developed".

Impervious area has been the primary parameter employed in Boulder since the initial rate methodology was adopted in 1973. The manner in which impervious area is measured, estimated, or calculated and how it is treated in the service charge calculation has evolved over the past fifty years. The city needs to periodically reassess how the service charge and PIF rate methodologies fit with the changing program and costs.

Incentive Credits

As discussed in the most recent rate analysis (Raftelis, 2017), the City may explore credit policies that incentivize low impact developments. Certain credit policies can be developed in conjunction with the rate structure modifications to provide economic incentives for low-impact developments. Credit programs are common across stormwater utilities. A credit is a reduction in the stormwater fee granted to a customer for measures that reduce demand upon the utility's drainage infrastructure, thereby reducing the cost for stormwater management. Through incentivizing decentralized stormwater management, a credit program is designed to:

- Protect water quality
- Reduce flooding
- Create equity in the rate structure through appropriate fee reduction opportunities
- Reduce public expenditures on stormwater management by fulfilling permit requirements and meeting other program goals indirectly

A credit program could be implemented under the current rate structure to incentivize low-density development and to resolve the large-lot issue, if changes to the rate structure cannot achieve the desired outcomes. It is unlikely that a credit program would have a significant impact on the Utility's finances, and a beneficial program could be put in place without altering the rate structure.

Annual Service Charge Rate Adjustment / Biannual Update Analysis

The city's primary financial management tool is the annual budget process, which addresses both costs and revenues. The city's approach is to conduct the analyses and project budgets for two years rather than one, providing a glimpse of the second year but only locking in the first by formal City Council adoption. In addition, the city forecasts the future operating, capital budgets, and revenues for a six-year period in less detail for financial planning purposes.

The city has routinely adjusted service charge and/or PIF rates annually (ramping) rather than on a longer interval (stepping), consciously integrating the rate analysis process into the budget process. Management of the Utility during the year benefits from linking rate management with budgeting. To maintain that connection with the city's budget process, an annual rate evaluation should also incorporate a projection for the next year.

Debt Versus Expensed Funding for Major Capital Infrastructure

The city employs both annually budgeted (cash funded) and debt-financed funding of major capital infrastructure. The latter allows the Utility to expedite property and equipment acquisitions and to make costly improvements to the stormwater and flood management facilities. When very costly improvements must be built, like major flood improvements, bonding is the practical funding mechanism.

Debt funding can enhance the equity of cost apportionment over time by extending the payment period for capital infrastructure that has a service life over several generations and future land development conditions. Given that the Utility's stormwater and flood management service charges are limited to developed properties with impervious area, undeveloped properties don't participate financially. The city normally sells revenue bonds with a twenty-year repayment schedule, which allows the Utility to spread costs across both currently developed properties and those that will be developed during that bonding period.

Incorporating Sustainability and Resilience as Financial Considerations

Leadership in fiscal resilience is making the city better equipped to respond to and recover from economic shocks, whether this is withstanding a global recession or responding to a major event (Boulder, 2016). One of the city's primary financial

policies is that one-time revenues shall only be used to cover one-time expenses and that ongoing costs should not be greater than ongoing revenues.

Recognizing that the utilities around the world are facing a volatile, uncertain, complex, and ambiguous landscape, creating and maintaining a sustainable and resilient community requires a keen understanding of current impact and future financial implications over the long-term. Sustainability and resilience require both the capacity to respond quickly and the ability to do so over years.

The functionality of stormwater and flood management systems must be maintained over time, which requires a complex and dynamic set of activities ranging from inspection to cleaning, repair, and replacement. However, the sustainability of a stormwater and flood management program is not solely a matter of ensuring that the systems and services provided continue to function effectively; it also involves financial sustainability. Income from various sources must be sufficient to pay for operational and capital costs and meet operating and emergency reserve objectives far into the future.

For example, the asset management system has illuminated the challenge of maintaining and replacing legacy stormwater systems. The asset management system should be elevated as a priority with continued resources applied to the stormwater and flood management facilities as soon as practicable.

Refinement of the Future Program Budgets through Cost of Service Analyses

Cost of service analyses serve other purposes beyond budgeting and program management. Reasonably detailed and accurate cost projections are essential when service charge and PIF rate studies are conducted. They also foster effective use of the Utility's asset management system.

This Master Plan provides abundant information that would inform a cost of service analysis, including both the current functions performed by the Utility as well as major trends in flood management, stormwater management, and stormwater quality. That look into the future illuminates emerging issues and opportunities that may impact the city and the Utility in the future. Future costs can be more easily and reliably forecast with regular updates.

6 Recommendations

The Utility's financial strategy is to provide adequate resources to support the planning, construction, and operations and maintenance of capital improvement projects and meet regulatory compliance requirements. Revenues are tied to a "user pays" model largely around the amount of impervious surface area.

The recommendations presented herein address funding and financial management. They support the Stormwater and Flood Management Utility, policy issues addressed above, and the goals and objectives of the Master Plan.

20-year CIP development

- Apply the Prioritization Framework to remaining projects to develop a 20-year CIP for the utility, including evaluation of external funding sources.

Future Funding Methods and Mechanisms

- Assess a range of potential funding methods and mechanisms to optimize and diversify funding sources.

Rate Methodologies

- Continue to review and update service charges and rate methodologies to: 1) maintain currency of the structure with industry practice and standards; 2) reflect strategic objectives and costs; and, 3) ensure that apportionment of costs across the community equitably reflect the service demands and impacts.

Annual Service Charge Rate Adjustment / Biannual Update Analysis

- Adjust service charge rates annually as part of the budget process to meet program strategy, expenditure, and fund balance objectives.
- Conduct a biannual analysis of the rates as part of the city's two-year planning budget process to assess short-term revenue sufficiency to meet strategic, operational, capital investment, and fund balance objectives.
- Reassess the technical structure of the service charge rate methodology and the PIF methodology every five to eight years to determine consistency with city policies, evolving functions of the Utility, availability of other funding mechanisms, other policy objectives, and the BVCP requirements.

Debt Versus Expensed Funding for Major Capital Infrastructure

- Use revenue-bonded debt funding for an increasing portion of the Utility's capital infrastructure needs, reducing reliance on the Utility's annually budgeted expenditures to fund capital infrastructure, expediting improvements in operational functions, improving asset management, and enhancing the temporal equity of capital infrastructure cost apportionment.

Incorporating Sustainability and Resilience as Financial Considerations

- Incorporate the city's sustainability and resilience objectives and their impact on financial considerations in the Utility's policies, strategic program planning, budgeting process, and operations.
- In coordination with the city's budget process, the Utility should perform a regular assessment of possible service charge and PIF rate adjustments necessary to maintain a sustainable utility.

Refinement of the Future Program Budgets through Cost of Service Analyses

- Undertake a long-range but relatively detailed cost of service analysis to refine future financial planning and budgeting.
  - Examine a five to eight-year time frame on cost of service analyses.
  - Include a level of detail that is sufficient to support annual service charge and PIF rate reviews.
- Cost of service projections should be reassessed every two years in coordination with city's annual budget process (which provides a two-year perspective with a 6-year CIP projection) and refined as needed through service charge and PIF rate studies.

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