

FISCAL YEAR

2019-2024 **APPROVED** CAPITAL IMPROVEMENT PROGRAM



Service Excellence for an Inspired Future.



2019-2024 Approved Capital Improvement Program



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CITY OF BOULDER CITY COUNCIL



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Director of Public Works for Transportation.....	Michael Sweeney
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CITY OF BOULDER CIP PEER REVIEW TEAM

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HOW TO USE THIS DOCUMENT

The City of Boulder's 2019-2024 Capital Improvement Program (CIP) contains information on how the city plans to invest available resources into key infrastructure and facilities between 2019 and 2024. The 2019-2024 CIP provides the funding plan (amount needed by year) for each CIP project. That is, the amounts analyzed in the document's summary sections and in each project sheet refer to planned budget allocations (sources) and not expenditures (uses), over the six year time frame. This document contains: planned project funding summaries organized by department, project type, and fund; links to maps and detail project sheets illustrating the location of projects throughout the city; and narratives describing the rationale behind project prioritization. The 2019-2024 CIP has four main parts:

1 | Introduction

Provides an overview of the 2019-2024 CIP including highlights of the CIP, and describes the CIP process.

2 | Funding Summaries

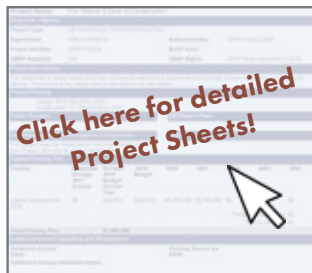
Contains analysis of how the 2019-2024 CIP allocates dollars among city departments, project types, and funds. Full financial detail can be found in the tables of this section.

3 | Department Overviews

Contains highlights of each department's mission, funds, capital projects and highlights. Following the narrative, the department sections contain department funding summaries and links to project sheets for each of the department's CIP projects.

4 | Community & Environmental Assessment Process (CEAP)

Contains a list of individual projects identified in the annual CIP process that will complete a CEAP.



DETAILED PROJECT SHEETS

Click on this icon to view detailed project sheets for the 2019-2024 CIP. A link to individual department projects sheets are also available in each department overview.



HOW TO READ PROJECT FINANCIAL DATA

The funding tables (includes tables in Funding Summaries section, as well as tables in the Department Overview section) show the **Estimated Total Cost** for each project, which includes total dollars allocated in 2017 and 2018, approved budget for 2019, and the estimated cost for each year between 2020 through 2024.

Fire-Rescue Projects

EXAMPLE

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital	\$ 7,840,000	\$ 300,000	\$ 4,791,000	\$ 2,749,000	\$ -	\$ -	\$ -
New Facility	\$ 7,840,000	\$ 300,000	\$ 4,791,000	\$ 2,749,000	\$ -	\$ -	\$ -
Fire Station #3 Desn & Construction	\$ 7,840,000	\$ 300,000	\$ 4,791,000	\$ 2,749,000	\$ -	\$ -	\$ -

Fire Station #3 is being moved out of the 100-year floodplain to a location that will provide quicker response to more calls for service. This project is the design and construction of the new station.

Funding tables in the **Department Overview** section list projects by type:

1. Capital Enhancement,
2. Capital Maintenance,
3. Capital Planning Studies,
4. Land Acquisition, and/or
5. New Facility/Infrastructure.

Community, Culture, & Safety Tax Projects (for projects not listed in other departments)

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 5,750,000	\$ 3,250,000	\$ 1,700,000	\$ 800,000	\$ -	\$ -	\$ -
Capital Enhancement Total	\$ 3,650,000	\$ 1,150,000	\$ 1,700,000	\$ 800,000	\$ -	\$ -	\$ -
CCS Agreements - Boulder Community Center	\$ 1,000,000	\$ 250,000	\$ 250,000	\$ 500,000	\$ -	\$ -	\$ -
CCS Agreements - KGNU Radio	\$ 500,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -
CCS Agreements - Resource Central	\$ 1,100,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
New Facility/Infrastructure Total	\$ 2,100,000	\$ 2,100,000	\$ -	\$ -	\$ -	\$ -	\$ -
CCS Agreements - Meals on Wheels	\$ 850,000	\$ 850,000	\$ -	\$ -	\$ -	\$ -	\$ -
CCS Agreements - Studio Arts	\$ 1,250,000	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -	\$ -

EXAMPLE

Location: 1750 13th St. Boulder Community Center will renovate the current facility, which is necessary for the organization to sustain its current levels of growth and provide the best service for the community.

Location: 4700 Walnut St. KGNU will expand its facility into a 21st century, energy efficient, permanent media training and multicultural Community Media Center.

Location: 6400 Arapahoe Ave. Zero Waste Community Center will improve facilities to expand recycling and reuse efforts, including a covered retail area, warehouse with offices, a lumber de-railing area and improved drop off areas.

Location: 0 Diagonal. The new facility for Meals on Wheels of Boulder will expand meal delivery services and increase the capacity to offer more on-site classes.

Location: 0 Diagonal. The new facility for community education in the studio arts will include ceramics, woodworking, printmaking and additional flexible studio space for glass, fiber, and metal.



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1 | INTRODUCTION

CAPITAL PLANNING AND THE CIP

The City of Boulder's Capital Improvements Program (CIP) is a comprehensive, 6-year plan for capital investment in maintaining and enhancing public infrastructure. The CIP provides a forecast of funds available for capital projects and identifies all planned capital improvement projects and their estimated costs over the 6 year period. A community's CIP is a guide that lays out the framework for achieving the current and future goals related to the physical assets of the community.

Boulder invests in facilities and infrastructure and provides a high level of municipal services. The city owns and maintains 385 buildings and structures (including three recreation centers, five library facilities, eight fire stations, and five parking structures), 1,800 acres of parkland, 71.2 acres of Open Space & Mountain Parks, 305 centerline miles of streets, 159 centerline miles of bike facilities, 80 underpasses, two water treatment facilities, one wastewater treatment facility, 11 dams and over 800 miles of water and wastewater piping.

The city funds the construction and maintenance of these assets using a wide range of sources, including tax revenues, bond proceeds, and fees and continues to look for ways to leverage its funding, through federal, state, and local grants and reimbursements, to maximize funding for CIP projects.

The CIP development process prioritizes the city's numerous needs across multiple departments and services with attention to the limits of each funding source, progress on ongoing CIP projects, funding commitments made by prior CIPs and ongoing work to leverage outside

funding. Specific information about prioritization, including the CIP Guiding Principles, is included in the Capital Planning, Prioritization and Guiding Principles section of this document.

PLANNING

The first step of the annual CIP process identifies and prioritizes the needs of the community. This is done by applying Boulder's Sustainability + Resilience Framework to ensure that the CIP aligns with and advances the wide range of goals and priorities of the City Council and community. The seven categories of the Sustainability + Resilience Framework build upon the Boulder Valley Comprehensive Plan (BVCP) and the city's Priority Based Budgeting (PBB) approach: two key initiatives that define long-term community goals and priorities. Both the BVCP and PBB were developed from extensive community input processes and are used to guide long-term decision making as well as the city's annual budget process.



SAFE



HEALTHY & SOCIALLY THRIVING



LIVABLE



ACCESSIBLE & CONNECTED



ENVIRONMENTALLY SUSTAINABLE



RESPONSIBLY GOVERNED



ECONOMICALLY VITAL



INTRODUCTION

PROJECT REVIEW

The second phase engages each department proposing projects for the CIP in a citywide review process. Proposed projects are reviewed by the CIP Peer Review Team (PRT). After the PRT's review of projects, the city's Executive Budget Team reviews the project information and provides feedback to departments before departments prior to inclusion in the draft CIP.

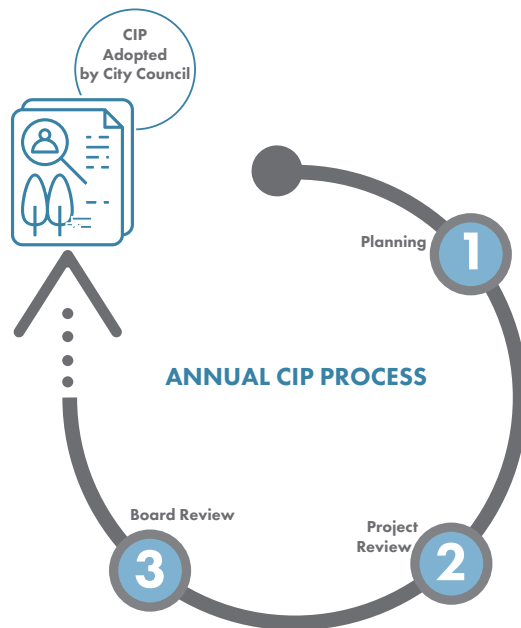
BOARD REVIEW AND CITY COUNCIL ACTION

The final phase involves review by department advisory boards, the Planning Board, and City Council. Department advisory boards review their department's proposed CIP projects and make recommendations to the Planning Board and City Council.

Section 78 of the City Charter calls for the city Planning Department to prepare the annual CIP

with other city departments for submittal to the City Manager. The Planning Board evaluates and makes recommendations to the City Manager and City Council on the draft CIP. The Planning Board's review of the CIP includes the relationship of projects to the policies of the BVCP, sub-community plans, area plans and departmental master plans.

City Council reviews the draft CIP in August, and provides feedback to the City Manager prior to final budget development. City Council appropriates funds for the first year of the CIP through the budget ordinances. While Colorado state law limits appropriations to the first year of the CIP, the succeeding five years of the annual CIP are important in providing a longer-term plan for setting funding priorities, scheduling projects in a logical sequence, and coordinating and targeting capital improvements for all city departments.



INTRODUCTION

HOW BOULDER PLANS FOR CAPITAL IMPROVEMENTS

The Capital Improvement Program is one component of the city's planning and review of capital projects. These phases represent a continuous process of planning, funding and implementation (see graphic on following page).

Phase 1: Departmental Master Planning and Strategic Planning

- Departmental plans establish detailed policies, priorities, facility and system needs and funding plans.
- Guided by the Boulder Valley Comprehensive Plan (BVCP) & Sustainability + Resilience Framework.
- Most master plans involve significant public participation and result in CIP projects.
- Master Plans are reviewed by advisory boards and the Planning Board, and accepted by City Council.

Phase 2: Capital Improvement Program (CIP) and Budget Appropriation

- Departmental master plans, sub-community and area plans help guide prioritization of improvement projects.
- Carry out the comprehensive plan's policies of orderly and efficient provision of urban facilities and services.
- Forecast of funds available for capital projects and identifies all planned projects and estimated costs over a six-year period. Projects prioritized through the CIP Guiding Principles.
- First year's CIP program is adopted by City Council as a counterpart to the operating budget.

Phase 3: Project Planning and Design

- Evaluates a full range of project alternatives and resulting impacts (not system-wide alternatives).
- Identifies an appropriate review process, including the Community and Environmental Assessment Process (CEAP), or a Concept Plan and Site Plan review. "CEAPs" are reviewed by advisory boards, the Planning Board and presented to City Council as a call-up item.
- Includes appropriate community engagement in design alternatives.

Phase 4: Project Engineering and Final Design

- Some projects require Technical Document Review and are reviewed internally through the Development Review Committee.

Phase 5: Final Permitting

- Some projects require building, flood, stormwater discharge or right-of-way permits.

Phase 6: Project Construction and Management

- Projects requiring building, right-of-way or wetlands permitting also require construction and post-construction follow-up.



INTRODUCTION

OPPORTUNITIES FOR COMMUNITY INFLUENCE

The graphic on this page shows the general steps in Boulder’s planning process, along with the general expectations for community engagement and the level of detail in construction plans. Master plans include a robust community engagement process that ultimately results in conceptual CIP projects. These conceptual projects are then scheduled into the six-year CIP, with some design work and financing completed as they approach the budget funding cycle. Additional engagement often happens in Phase 3, especially when there are numerous alternatives to consider. Community engagement during final permitting and construction is limited to informing community members about impacts to their daily lives.

City Council, advisory boards, community members and others have the highest amount of influence during the master planning process and in the scheduling of years two through six of the CIP.



INTRODUCTION

2019 – 2024 CAPITAL IMPROVEMENT PROGRAM

The 2019-2024 CIP includes \$488 million for 145 items. This includes discrete projects as well as categories of funding for ongoing needs (e.g. local drainage improvements, major trail maintenance).

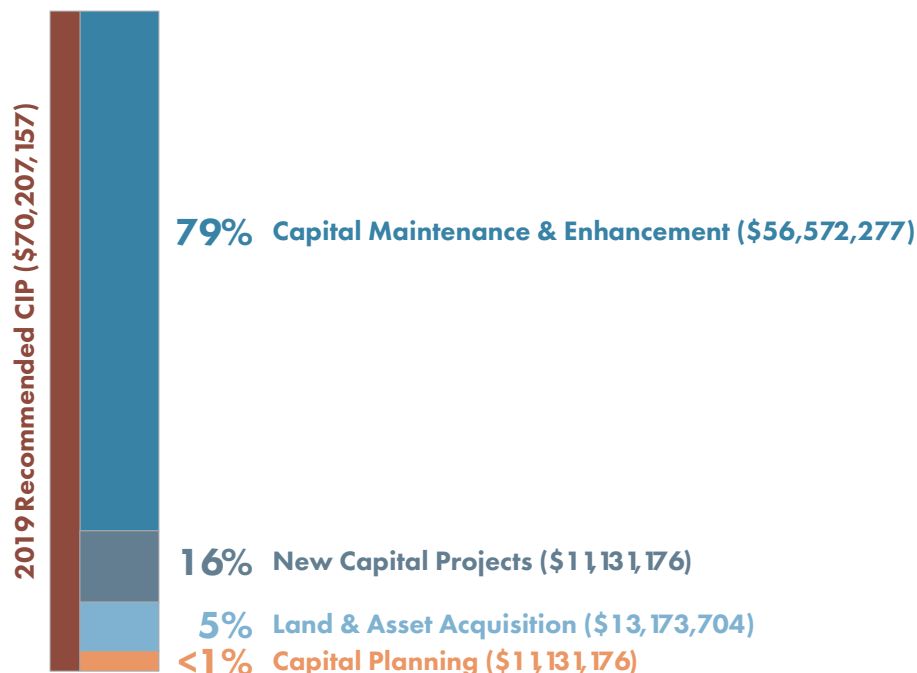
2019 PROJECTS BY TYPE

The city is spending the majority, about 79 percent, of its 2019 capital funds on capital maintenance and enhancement of its existing assets (see figure below). Capital enhancements involve upgrades to existing facilities that may include upgraded technologies, materials and equipment that can be more efficient, effective and less costly to operate over time.

The CIP focuses on taking care of what the city already owns with an emphasis on making improvements to its core service areas.

COMMUNITY, CULTURE & SAFETY TAX

On Nov. 7, 2017, Boulder voters approved two ballot measures to extend the Community, Culture and Safety (CCS) Tax for Capital Improvements. This four-year extension of the 0.3 temporary sales tax originally approved in 2014 will fund several important city facilities and infrastructure projects and provide matching funds for facilities improvements for seven community non-profits. Information about each of the projects is provided in department overviews that follow and on the [project website](#).



INTRODUCTION

CURRENT & UPCOMING MASTER PLANS

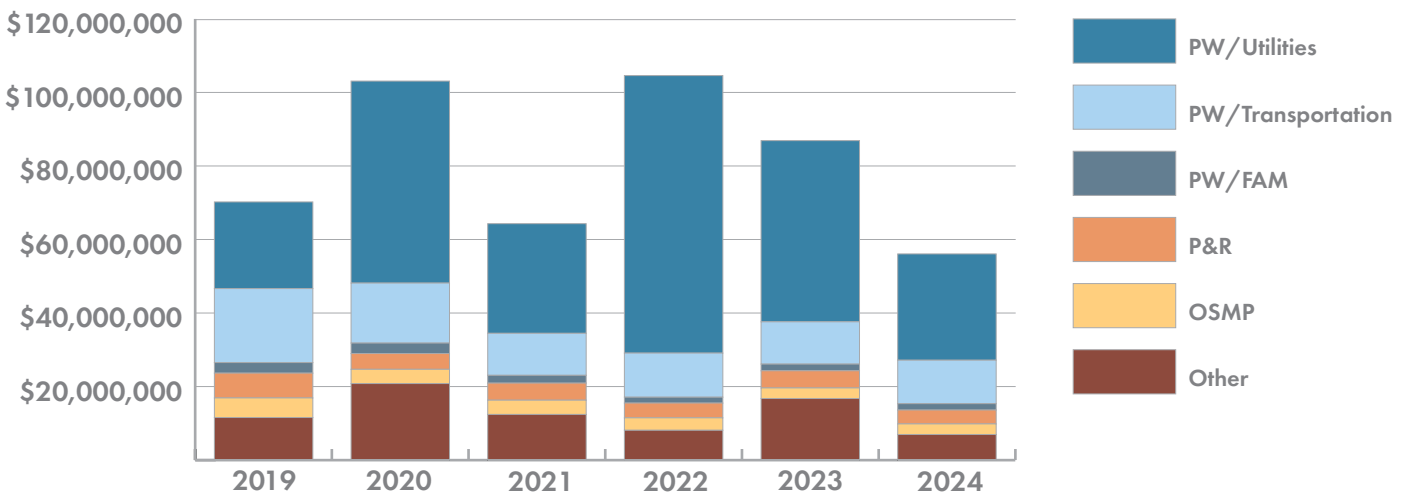
Several departmental master plan updates are underway (or will soon begin) and will inform future capital planning. These include:

- Fire-Rescue
- Library
- Open Space & Mountain Parks
- Transportation
- Parks & Recreation
- Facilities & Asset Management
- Police

In the currently proposed 2019-2024 CIP, over \$70.6 million is recommended for project allocation in 2019, and approximately \$489 million is recommended for project allocations for years 2019-2024. As anticipated in previous CIP documents, the proposed 2019 allocations are significantly lower than what was approved for 2018 allocations, which included several high-dollar projects, which included the Carter Lake Pipeline. It is important to remember that unlike an operating budget, the capital budget may significantly fluctuate between years due to timing of projects and availability of funding. While the overall allocation is lower, the 2019-2024 CIP includes several large projects including:

- Deferred Facility Maintenance Projects \$2.2M
- Pavement Management Program \$4.8M
- 30th St and Colorado Bike/Ped \$5.0M
- Wastewater cogeneration engine overhauls \$4.0M
- Ongoing repairs to Barker Gravity Pipeline \$4.1M

FUNDING BY DEPARTMENT



INTRODUCTION

CIP GUIDING PRINCIPLES

The City of Boulder develops a Capital Improvement Program (CIP) that addresses the ongoing major business needs and maintenance and repair of city assets as well as enhancements and expansion called for in the Boulder Valley Comprehensive Plan and city master plans. The CIP is a strategic document that assures that the municipal organization maintains a strong bond rating, implements community values and has fiscal integrity. The city prioritizes its investments both across and within funds, based on the following guiding principles:

1. Capital Improvement Programs should be consistent with and implement Council-accepted master plans and strategic plans.
2. Capital Improvements should achieve Sustainability + Resilience Framework Goals:
 - SAFE
 - HEALTHY & SOCIALLY THRIVING
 - LIVABLE
 - ACCESSIBLE & CONNECTED
 - ENVIRONMENTALLY SUSTAINABLE
 - RESPONSIBLY GOVERNED
 - ECONOMICALLY VITAL
3. As potential capital investments are identified, the city must demonstrate in the CIP process that there are sufficient funds to operate and maintain the project or program.
4. Capital Improvement Programs should provide enough capacity and flexibility in our long-term planning to be able to respond to emerging, unanticipated needs.
5. Capital Improvement Programs should maintain and enhance the supporting citywide “business systems”, such as information and finance systems, for the city over the long term.
6. Capital Improvement Programs should focus on capital investments for sustaining or improving maintenance of existing assets based on consistent asset assessment principles and practices, as well as balance needed investments for enhancements or new facilities to support levels of service outlined in master plans.
7. Capital programming should maximize efficiency of investment demonstrated by measurable cost/benefit analyses and coordination of projects across department within and across funds.



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2 | FUNDING SUMMARIES

FUNDING BY DEPARTMENT

Community Vitality
Facilities & Asset Management
Fire-Rescue
Innovation & Technology
Library & Arts
Open Space & Mountain Parks
Parks & Recreation
Police
Transportation
Utilities & Greenways
Citywide

FUNDING BY PROJECT TYPE

Capital Enhancement
Capital Maintenance
Capital Planning Studies
Land Acquisition
New Facility/Infrastructure

FUNDING BY FUND

.25 Cent Sales Tax Fund
Airport Fund
Boulder Junction Capital Improvement Fund
Capital Development Fund
Community, Culture, Safety Tax Fund
Computer Replacement Fund
Downtown Commercial District Fund
Facility Renovation & Replacement Fund
General Fund
Lottery Fund
Open Space Fund
Permanent Park & Recreation Fund
Stormwater & Flood Management Utility Fund
Transportation Fund
Transportation Development Fund
Wastewater Utility Fund
Water Utility Fund



FUNDING SUMMARIES

OVERVIEW

The Funding Summaries section provides full detail of the city's CIP budget needs from 2019 through 2024 by department, project type, and fund. For each of the three funding views, the following information is shown:

- Total project cost
- Planned funding allocation in each year 2019-2024 and the six-year total
- Prior funded amount
- Unfunded amount

The Funding Summaries focus on estimated budget needs for all projects. In practice, as projects are planned, designed, and constructed, during any given year, appropriated project sources almost always differ from project expenditures. In some circumstances, such as a large project that requires many years of accumulated funds before design or construction can commence, expenditures may significantly lag appropriations.

All tables and graphs in this section include transfers between departments. These transfers are included in the departments because they will appear in the individual department sections of the overall city budget. The summary information included in the introduction removes transfers to avoid double counting and to correctly express the total project funding of the CIP.

The Public Works divisions of Utilities and Transportation have the greatest allocations of resources in the 2019-2024 CIP. Major renovations to stormwater, water and wastewater facilities are primarily responsible for the large spikes in allocations during 2020 and 2022.

Many departments have dedicated revenue sources that keep their CIP funding relatively constant. For example, both Open Space & Mountain Parks and Parks & Recreation have dedicated revenue

sources, and their CIP funding remains relatively constant.

During the renewal of the Community, Culture, and Safety Tax and the 2018 Budget process, discussions with council highlighted that the General Fund CIP has been limited, generally to Facilities & Asset Management-related projects, and supplemented through voter-approved capital funding initiatives. With many unfunded capital projects residing in the General Fund, the 2018 Budget, for the first time, included \$3.65 million to begin phase one of a formal Capital Improvement Program for the General Fund.

The 2018 budget dedicated 3 percent of General Fund expenses to be used for capital needs, with a future target of 5 percent annually for capital. The guidelines for the General Fund propose to build to the 5 percent target by 2022. General Fund capital dollars are included in the 2019-2024 CIP and can be found both within the corresponding departments or in the Citywide department section if they are not directly tied to a single department.

The chart on the following page displays the share of total 2019-2024 CIP spending on each department.

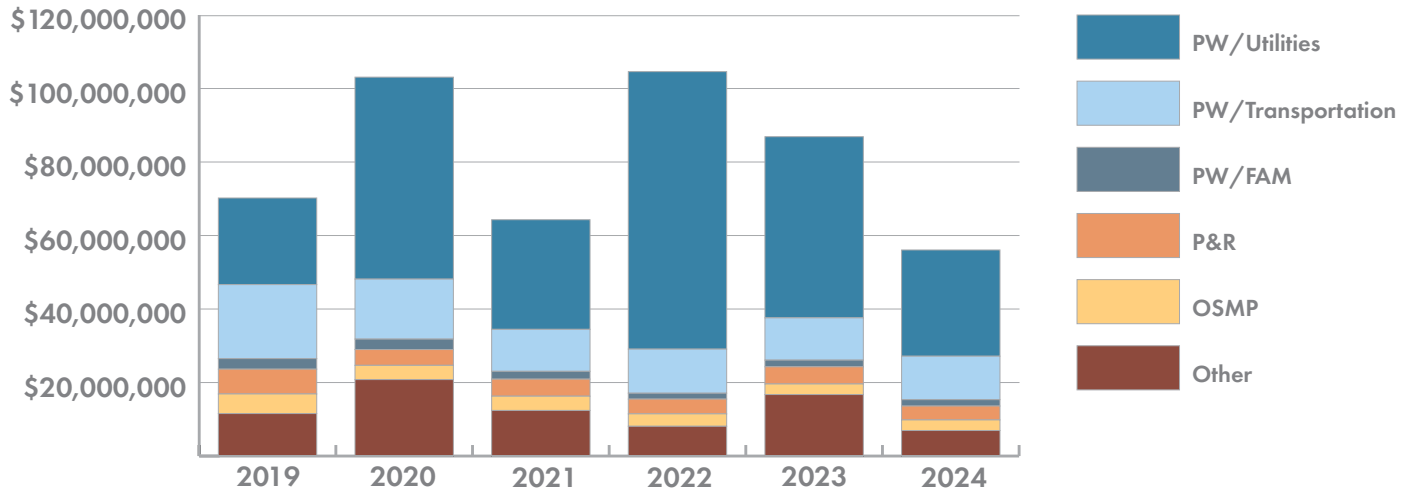
The following city departments are participating in the 2019-2024 CIP:

- Community Vitality
- Facilities & Asset Management
- Fire-Rescue
- Innovation & Technology
- Library & Arts
- Open Space & Mountain Parks
- Parks & Recreation
- Police
- Transportation
- Utilities & Greenways
- Citywide



FUNDING SUMMARIES

2019-2024 Funding By Department



2019-2024 FUNDING SUMMARY BY DEPARTMENT

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
COMMUNITY, CULTURE, SAFETY	\$ 5,750,000	\$ 3,250,000	\$ 1,700,000	\$ 800,000	\$ -	\$ -	\$ -
COMMUNITY VITALITY	8,982,681	937,040	1,955,766	667,895	853,685	4,012,215	556,080
FIRE-RESCUE	7,840,000	300,000	4,791,000	2,749,000	-	-	-
CITYWIDE	32,097,200	3,447,360	4,744,720	5,292,080	5,839,440	6,386,800	6,386,800
INNOVATION & TECHNOLOGY	14,357,800	1,851,200	3,054,200	1,717,900	1,404,900	6,329,600	-
LIBRARY & ARTS	6,750,000	1,021,176	4,552,941	1,175,882	-	-	-
OPEN SPACE & MOUNTAIN PARKS	22,235,300	5,335,300	3,880,000	3,880,000	3,380,000	2,880,000	2,880,000
PARKS & RECREATION	28,512,333	7,099,333	4,296,000	4,645,000	4,020,000	4,670,000	3,782,000
POLICE	750,000	750,000	-	-	-	-	-
FACILITIES & ASSET MANAGEMENT	12,991,000	2,870,000	2,845,000	2,123,000	1,600,000	1,823,000	1,730,000
STORMWATER & FLOOD UTILITY	87,075,386	3,054,308	35,858,357	10,299,738	4,554,505	28,867,720	4,440,758
TRANSPORTATION	83,199,078	20,138,916	16,320,749	11,422,580	11,994,500	11,494,500	11,827,833
WASTEWATER UTILITY	78,400,300	10,312,767	7,979,469	7,532,047	37,222,961	6,172,247	9,180,809
WATER UTILITY	100,029,306	10,189,757	12,425,271	13,738,310	34,146,784	14,247,627	15,281,559
TOTAL	\$488,970,385	\$ 70,557,157	\$104,403,473	\$ 66,043,432	\$105,016,775	\$ 86,883,709	\$ 56,065,839



FUNDING SUMMARIES: FUNDING BY DEPARTMENT

COMMUNITY, CULTURE, SAFETY

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL ENHANCEMENT							
CCS Agreements - BMOCA	\$ 1,000,000	\$ 250,000	\$ 250,000	\$ 500,000	\$ -	\$ -	\$ -
CCS Agreements - KGNU Radio	1,250,000	900,000	350,000	-	-	-	-
CCS Agreements - Resource Central	1,400,000	-	1,100,000	300,000	-	-	-
TOTAL: CAPITAL ENHANCEMENT	\$ 3,650,000	\$ 1,150,000	\$ 1,700,000	\$ 800,000	\$ -	\$ -	\$ -
NEW FACILITY/INFRASTRUCTURE							
CCS Agreements - Meals on Wheels	\$ 850,000	\$ 850,000	\$ -	\$ -	\$ -	\$ -	\$ -
CCS Agreements - Studio Arts	1,250,000	1,250,000	-	-	-	-	-
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 2,100,000	\$ 2,100,000	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: COMMUNITY, CULTURE, SAFETY	\$ 5,750,000	\$ 3,250,000	\$ 1,700,000	\$ 800,000	\$ -	\$ -	\$ -

COMMUNITY VITALITY

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL MAINTENANCE							
Downtown Parking Garage Major Maint	\$ 8,982,681	\$ 937,040	\$ 1,955,766	\$ 667,895	\$ 853,685	\$ 4,012,215	\$ 556,080
TOTAL: CAPITAL MAINTENANCE	\$ 8,982,681	\$ 937,040	\$ 1,955,766	\$ 667,895	\$ 853,685	\$ 4,012,215	\$ 556,080
TOTAL: COMMUNITY VITALITY	\$ 8,982,681	\$ 937,040	\$ 1,955,766	\$ 667,895	\$ 853,685	\$ 4,012,215	\$ 556,080

FIRE-RESCUE

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL MAINTENANCE							
Fire Station 3 Desn & Construction	\$ 7,840,000	\$ 300,000	\$ 4,791,000	\$ 2,749,000	\$ -	\$ -	\$ -
TOTAL: CAPITAL MAINTENANCE	\$ 7,840,000	\$ 300,000	\$ 4,791,000	\$ 2,749,000	\$ -	\$ -	\$ -
TOTAL: FIRE-RESCUE	\$ 7,840,000	\$ 300,000	\$ 4,791,000	\$ 2,749,000	\$ -	\$ -	\$ -



FUNDING SUMMARIES: FUNDING BY DEPARTMENT

CITYWIDE

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL MAINTENANCE							
General Fund Capital	\$22,014,032	\$ 1,606,656	\$ 2,904,016	\$ 3,451,376	\$ 3,998,736	\$ 4,866,448	\$ 5,186,800
TOTAL: CAPITAL MAINTENANCE	\$22,014,032	\$ 1,606,656	\$ 2,904,016	\$ 3,451,376	\$ 3,998,736	\$ 4,866,448	\$ 5,186,800
LAND ACQUISITION							
Hogan Pancost Land Purchase	\$ 2,883,168	\$ 640,704	\$ 640,704	\$ 640,704	\$ 640,704	\$ 320,352	\$ -
TOTAL: LAND ACQUISITION	\$ 2,883,168	\$ 640,704	\$ 640,704	\$ 640,704	\$ 640,704	\$ 320,352	\$ -
NEW FACILITY/INFRASTRUCTURE							
Broadband Fiber Backbone	\$ 7,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 7,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000
TOTAL: CITYWIDE	\$32,097,200	\$ 3,447,360	\$ 4,744,720	\$ 5,292,080	\$ 5,839,440	\$ 6,386,800	\$ 6,386,800

INNOVATION & TECHNOLOGY

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL MAINTENANCE							
Data Backup and Disaster Recovery	\$ 157,400	\$ -	\$ -	\$ -	\$ 53,300	\$ 104,100	\$ -
Database Hardware Replacement	150,600	-	19,200	65,600	65,800	-	-
End User Device Replacement	3,909,500	694,000	704,000	720,100	910,400	881,000	-
Network Hardware Replacement	2,751,800	985,800	795,800	289,600	357,600	323,000	-
Security Administration	120,600	37,600	35,200	30,000	17,800	-	-
Server Hardware Replacement	567,900	33,800	-	512,600	-	21,500	-
Software Replacement	6,700,000	100,000	1,500,000	100,000	-	5,000,000	-
TOTAL: CAPITAL MAINTENANCE	\$14,357,800	\$ 1,851,200	\$ 3,054,200	\$ 1,717,900	\$ 1,404,900	\$ 6,329,600	\$ -
TOTAL: INNOVATION & TECHNOLOGY	\$14,357,800	\$ 1,851,200	\$ 3,054,200	\$ 1,717,900	\$ 1,404,900	\$ 6,329,600	\$ -



FUNDING SUMMARIES: FUNDING BY DEPARTMENT

LIBRARY & ARTS

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL ENHANCEMENT							
CCSV2 Pubic Art Projects	\$ 400,000	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -
TOTAL: CAPITAL ENHANCEMENT	\$ 400,000	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -
NEW FACILITY/INFRASTRUCTURE							
North Boulder Branch Library DET Fees	\$ 1,700,000	\$ -	\$ 1,700,000	\$ -	\$ -	\$ -	\$ -
North Boulder Branch Library - CCS	4,650,000	821,176	2,652,941	1,175,882	-	-	-
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 6,350,000	\$ 821,176	\$ 4,352,941	\$ 1,175,882	\$ -	\$ -	\$ -
TOTAL: LIBRARY & ARTS	\$ 6,750,000	\$ 1,021,176	\$ 4,552,941	\$ 1,175,882	\$ -	\$ -	\$ -

OPEN SPACE & MOUNTAIN PARKS

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL ENHANCEMENT							
OSMP Long Term Campus Vision	\$ 600,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Regional Collaboration	480,000	80,000	80,000	80,000	80,000	80,000	80,000
TOTAL: CAPITAL ENHANCEMENT	\$ 1,080,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000
CAPITAL MAINTENANCE							
Agriculture and Water Facilities	\$ 960,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 110,000	\$ 110,000	\$ 110,000
Cultural Resource/Facility Restorat	600,000	100,000	100,000	100,000	100,000	100,000	100,000
Ecological System Maintenance/Restr	1,630,000	430,000	300,000	300,000	200,000	200,000	200,000
Facilities Maintenance	2,030,000	530,000	300,000	300,000	300,000	300,000	300,000
Farm Site Improvements	360,000	60,000	60,000	60,000	60,000	60,000	60,000
Four Mile Creek	355,300	355,300	-	-	-	-	-
Major Infrastructure Maintenance	2,890,000	990,000	500,000	500,000	300,000	300,000	300,000
New Property Stabilization	1,450,000	450,000	200,000	200,000	200,000	200,000	200,000
TOTAL: CAPITAL MAINTENANCE	\$10,275,300	\$ 3,125,300	\$ 1,670,000	\$ 1,670,000	\$ 1,270,000	\$ 1,270,000	\$ 1,270,000
CAPITAL PLANNING							
Integrated Site Planning	\$ 780,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000
TOTAL: CAPITAL PLANNING □ STUDIES	\$ 780,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000
LAND ACQUISITION							
Mineral Rights Acquisition	\$ 600,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
OSMP Real Estate Acquisition	8,300,000	1,600,000	1,600,000	1,600,000	1,500,000	1,000,000	1,000,000
Water Rights Acquisition	1,200,000	200,000	200,000	200,000	200,000	200,000	200,000
TOTAL: LAND ACQUISITION	\$10,100,000	\$ 1,900,000	\$ 1,900,000	\$ 1,900,000	\$ 1,800,000	\$ 1,300,000	\$ 1,300,000
TOTAL: OPEN SPACE & MOUNTAIN PARKS	\$22,235,300	\$ 5,335,300	\$ 3,880,000	\$ 3,880,000	\$ 3,380,000	\$ 2,880,000	\$ 2,880,000



FUNDING SUMMARIES: FUNDING BY DEPARTMENT

PARKS & RECREATION

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL ENHANCEMENT							
Aquatic Facility Enhancements	\$ 2,760,000	\$ -	\$ 150,000	\$ 2,100,000	\$ -	\$ 510,000	\$ -
Capital Infrastructure Enhancements	2,735,000	-	-	575,000	80,000	1,080,000	1,000,000
General Park Improvements	2,568,000	428,000	428,000	428,000	428,000	428,000	428,000
Operations Facilities Capital Enhac	1,000,000	-	-	-	-	1,000,000	-
Scott Carpenter Pool CCS	2,393,333	2,393,333	-	-	-	-	-
Valmont City Park - Phase 2	2,374,000	100,000	274,000	-	2,000,000	-	-
TOTAL: CAPITAL ENHANCEMENT	\$ 13,830,333	\$ 2,921,333	\$ 852,000	\$ 3,103,000	\$ 2,508,000	\$ 3,018,000	\$ 1,428,000
CAPITAL MAINTENANCE							
Boulder Reservoir South Shore	\$ 1,100,000	\$ 1,100,000	\$ -	\$ -	\$ -	\$ -	\$ -
Columbia Cemetery Capital Maintenan	242,000	106,000	32,000	-	40,000	32,000	32,000
Flatiron Golf Course Repairs	3,060,000	260,000	2,300,000	-	-	-	500,000
Neighborhood and Com Park Cap Maint	472,000	-	-	-	-	472,000	-
Neighborhood and Com Park Cap Maint (2,360,000	472,000	472,000	472,000	472,000	-	472,000
Parking Lot Capital Maintenance	1,808,000	840,000	-	300,000	-	318,000	350,000
Play Court Capital Maintenance	300,000	-	100,000	-	-	200,000	-
Recreation Facility Repairs	1,500,000	500,000	-	-	500,000	-	500,000
Urban Forest Management	2,900,000	500,000	400,000	500,000	500,000	500,000	500,000
TOTAL: CAPITAL MAINTENANCE	\$ 14,002,000	\$ 3,778,000	\$ 3,304,000	\$ 1,402,000	\$ 1,512,000	\$ 1,652,000	\$ 2,354,000
CAPITAL PLANNING STUDIES							
Forestry Emergency Response Plan	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
Master Plan Update	280,000	-	140,000	140,000	-	-	-
TOTAL: CAPITAL PLANNING STUDIES	\$ 330,000	\$ 50,000	\$ 140,000	\$ 140,000	\$ -	\$ -	\$ -
NEW FACILITY/INFRASTRUCTURE							
Boulder Junction Pocket Park	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: NEW FACILITY/INFRASTRUCTURE	350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: PARKS & RECREATION	\$ 28,512,333	\$ 7,099,333	\$ 4,296,000	\$ 4,645,000	\$ 4,020,000	\$ 4,670,000	\$ 3,782,000

POLICE

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL MAINTENANCE							
Incident Command Vehicle (ICV)	\$ 750,000	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: CAPITAL MAINTENANCE	\$ 750,000	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: POLICE	\$ 750,000	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -



FUNDING SUMMARIES: FUNDING BY DEPARTMENT

FACILITIES & ASSET MANAGEMENT

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL ENHANCEMENT							
Tantra Park Shop Renovation	\$ 300,000	\$ -	\$ -	\$ -	\$ 300,000	\$ -	\$ -
West Senior Center Major Maint/Rehab	700,000	-	-	-	700,000	-	-
TOTAL: CAPITAL ENHANCEMENT	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -
CAPITAL MAINTENANCE							
Aquatics Facility Repairs	\$ 976,000	\$ -	\$ -	\$ 723,000	\$ -	\$ 253,000	\$ -
Building Perf Energy Requirements	600,000	100,000	500,000	-	-	-	-
Deferred Facility Maint Projects	8,020,000	2,020,000	2,120,000	880,000	350,000	1,150,000	1,500,000
Fire Stations Major Maintenance	885,000	140,000	145,000	150,000	150,000	150,000	150,000
Fleet - System Repairs/Replacements	570,000	110,000	80,000	80,000	-	220,000	80,000
Martin Park Shelter Major Maint	170,000	-	-	170,000	-	-	-
N Boulder Park Shelter Repair	120,000	-	-	120,000	-	-	-
Recreation Facility Repairs	500,000	500,000	-	-	-	-	-
TOTAL: CAPITAL MAINTENANCE	\$ 11,841,000	\$ 2,870,000	\$ 2,845,000	\$ 2,123,000	\$ 500,000	\$ 1,773,000	\$ 1,730,000
CAPITAL PLANNING STUDIES							
Facility Assessments	\$ 150,000	\$ -	\$ -	\$ -	\$ 100,000	\$ 50,000	\$ -
TOTAL: CAPITAL PLANNING STUDIES	\$ 150,000	\$ -	\$ -	\$ -	\$ 100,000	\$ 50,000	\$ -
TOTAL: FACILITIES & ASSET MANAGEMENT	\$ 12,991,000	\$ 2,870,000	\$ 2,845,000	\$ 2,123,000	\$ 1,600,000	\$ 1,823,000	\$ 1,730,000



FUNDING SUMMARIES: FUNDING BY DEPARTMENT

STORMWATER & FLOOD UTILITY

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL ENHANCEMENT							
2017 MP -Wonderland Creek 1 Stm Sew	\$ 386,896	\$ -	\$ -	\$ 386,896	\$ -	\$ -	\$ -
Greenways Program - Flood & Lottery	1,491,402	248,567	248,567	248,567	248,567	248,567	248,567
Local Drainage Improvements	5,866,374	821,241	854,090	986,949	1,026,427	1,067,484	1,110,183
Stormwater Quality Improvements	1,210,709	182,500	190,000	197,390	205,285	213,497	222,037
SW MGMT - Bear Canyon Creek	324,846	-	-	324,846	-	-	-
SW MGMT - Middle Boulder Creek	3,862,873	-	-	3,862,873	-	-	-
Upper Goose Crk Storm/Flood Project	24,594,738	-	-	-	-	24,594,738	-
Fourmile Canyon Creek CCS	3,500,000	-	1,314,000	1,752,000	434,000	-	-
TOTAL: CAPITAL ENHANCEMENT	\$ 41,237,838	\$ 1,252,308	\$ 2,606,657	\$ 7,759,521	\$ 1,914,279	\$26,124,286	\$ 1,580,787
CAPITAL MAINTENANCE							
Drainageway Maintenance/Enhancement	\$ 3,310,000	\$ 500,000	\$ 520,000	\$ 540,000	\$ 560,000	\$ 580,000	\$ 610,000
Storm Sewer Rehabilitation	3,730,729	304,000	632,700	657,966	684,285	711,656	740,122
Transportation Coordination	3,792,029	365,000	633,000	657,966	684,285	711,656	740,122
Utility Billing Computer System	65,000	-	65,000	-	-	-	-
TOTAL: CAPITAL MAINTENANCE	\$ 10,897,758	\$ 1,169,000	\$ 1,850,700	\$ 1,855,932	\$ 1,928,570	\$ 2,003,312	\$ 2,090,244
LAND ACQUISITION							
Preflood Property Acquisition	\$ 4,198,790	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656	\$ 740,122	\$ 769,727
TOTAL: CIP-LAND ACQUISITION	\$ 4,198,790	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656	\$ 740,122	\$ 769,727
NEW FACILITY/INFRASTRUCTURE							
South Boulder Creek - Bond Proceeds	\$ 30,741,000	\$ -	\$30,741,000	\$ -	\$ -	\$ -	\$ -
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 30,741,000	\$ -	\$30,741,000	\$ -	\$ -	\$ -	\$ -
TOTAL: STORMWATER & FLOOD UTILITY	\$ 87,075,386	\$ 3,054,308	\$35,858,357	\$10,299,738	\$ 4,554,505	\$28,867,720	\$ 4,440,758



FUNDING SUMMARIES: FUNDING BY DEPARTMENT

TRANSPORTATION

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL ENHANCEMENT							
19th St (Norwood to Sumac)	\$ 327,200	\$ 327,200	\$ -	\$ -	\$ -	\$ -	\$ -
Broadway Recon Violet to 36	5,575,000	5,575,000	-	-	-	-	-
Greenways Program - Transportation	585,000	97,500	97,500	97,500	97,500	97,500	97,500
Intersection Safety Projects	817,840	434,440	80,520	302,880	-	-	-
Misc Development Coordination	300,000	50,000	50,000	50,000	50,000	50,000	50,000
Neighborhood Speed Mgmt Progr	1,500,000	250,000	250,000	250,000	250,000	250,000	250,000
Pavement Management Program	28,405,850	4,811,600	4,439,000	4,680,250	4,825,000	4,825,000	4,825,000
TOTAL: CAPITAL ENHANCEMENT	\$37,510,890	\$11,545,740	\$ 4,917,020	\$ 5,380,630	\$ 5,222,500	\$ 5,222,500	\$ 5,222,500
CAPITAL MAINTENANCE							
Deficient Street Light Pole Replace	\$ 484,000	\$ -	\$ -	\$ 121,000	\$ 121,000	\$ 121,000	\$ 121,000
Major Capital Reconstruction	4,960,350	595,350	810,000	855,000	900,000	900,000	900,000
Multituse Path Capital Maintenance	2,428,539	365,639	399,950	399,950	421,000	421,000	421,000
Ped Facilities Repair, Replace, ADA	3,628,387	546,287	597,550	597,550	629,000	629,000	629,000
Rehab Runway & Eastern Taxiway	5,427,779	-	5,427,779	-	-	-	-
Sidewalk Maintenance	1,455,800	225,900	238,450	238,450	251,000	251,000	251,000
Signal Maintenance & Upgrade	400,000	-	-	-	400,000	-	-
TOTAL: CAPITAL MAINTENANCE	\$18,784,855	\$ 1,733,176	\$ 7,473,729	\$ 2,211,950	\$ 2,722,000	\$ 2,322,000	\$ 2,322,000
CAPITAL PLANNING STUDIES							
Airport Master Plan	\$ 333,333	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 333,333
TMP Update	150,000	150,000	-	-	-	-	-
TOTAL: CAPITAL PLANNING STUDIES	\$ 483,333	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 333,333
NEW FACILITY/INFRASTRUCTURE							
30th St and Colorado Bike/Ped Under	\$ 5,000,000	\$ 5,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Multituse Path - Enhancements	1,170,000	135,000	180,000	180,000	225,000	225,000	225,000
Ped Facs Enh Missing Links Crossing	650,000	75,000	100,000	100,000	125,000	125,000	125,000
TIP Local Match TMP Implementation	4,100,000	700,000	800,000	700,000	700,000	600,000	600,000
TIP Local Match/TMP Implementation	15,500,000	800,000	2,850,000	2,850,000	3,000,000	3,000,000	3,000,000
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$26,420,000	\$ 6,710,000	\$ 3,930,000	\$ 3,830,000	\$ 4,050,000	\$ 3,950,000	\$ 3,950,000
TOTAL: TRANSPORTATION	\$83,199,078	\$20,138,916	\$16,320,749	\$11,422,580	\$11,994,500	\$11,494,500	\$11,827,833



FUNDING SUMMARIES: FUNDING BY DEPARTMENT

WASTEWATER UTILITY

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL ENHANCEMENT							
Wastewater Treatment Facility Pumps	\$ 300,000	\$ 75,000	\$ 75,000	\$ -	\$ 150,000	\$ -	\$ -
WWTF Activated Sludge	420,716	189,798	-	-	-	-	230,918
WWTF Instrumentation/Control	4,381,552	1,012,255	151,838	-	-	292,496	2,924,963
WWTF Permit Improvements	2,928,861	100,000	919,232	1,838,463	-	71,166	-
WWTF Permit Improvements - Proj. Bo	18,634,634	-	-	-	18,634,634	-	-
TOTAL: CAPITAL ENHANCEMENT	\$ 26,665,763	\$ 1,377,053	\$ 1,146,070	\$ 1,838,463	\$ 18,784,634	\$ 363,662	\$ 3,155,881
CAPITAL MAINTENANCE							
Arapahoe Trunk Sewer Replacement	\$ 12,605,000	\$ -	\$ -	\$ -	\$ 12,605,000	\$ -	\$ -
Collection System Monitoring	900,000	150,000	150,000	150,000	150,000	150,000	150,000
Condition Assessment Program	5,043,683	674,918	701,915	729,992	759,191	1,067,484	1,110,183
Sanitary Sewer Manhole Rehab	3,290,424	243,331	253,064	657,966	684,285	711,656	740,122
Sanitary Sewer Rehabilitation	20,778,573	3,302,465	3,226,563	3,355,626	3,489,851	3,629,445	3,774,623
Utility Billing Computer System	65,000	-	65,000	-	-	-	-
WWTF Cogeneration	4,000,000	4,000,000	-	-	-	-	-
WWTF Digester Cleaning	136,857	-	136,857	-	-	-	-
WWTF Digester Complex	2,200,000	200,000	2,000,000	-	-	-	-
WWTF Primary Clarifiers	665,000	115,000	-	50,000	500,000	-	-
WWTF Rehabilitation	1,500,000	250,000	250,000	250,000	250,000	250,000	250,000
WWTF Secondary Clarifiers	550,000	-	50,000	500,000	-	-	-
TOTAL: CIP-CAPITAL MAINTENANCE	\$ 51,734,537	\$ 8,935,714	\$ 6,833,399	\$ 5,693,584	\$ 18,438,327	\$ 5,808,585	\$ 6,024,928
TOTAL: WASTEWATER UTILITY	\$ 78,400,300	\$ 10,312,767	\$ 7,979,469	\$ 7,532,047	\$ 37,222,961	\$ 6,172,247	\$ 9,180,809



FUNDING SUMMARIES: FUNDING BY DEPARTMENT

WATER UTILITY

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL ENHANCEMENT							
Automated Meter Reading	\$ 769,727	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 769,727
Barker Dam Outlet	10,399,543	200,000	-	912,225	9,287,318	-	-
Devil's Thumb Storage Tank	1,486,874	-	-	-	1,486,874	-	-
Lakewood Hydroelectric/PRV	350,000	300,000	-	50,000	-	-	-
Orodell Hydro/PRV Facility	200,000	100,000	100,000	-	-	-	-
Pearl Street Hydro/PRV Facility	243,331	243,331	-	-	-	-	-
Water System Security/Quality Imprv	90,000	90,000	-	-	-	-	-
Wittemyer Ponds	676,372	-	-	-	-	100,000	576,372
TOTAL: CAPITAL ENHANCEMENT	\$ 14,215,846	\$ 933,331	\$ 100,000	\$ 962,225	\$10,774,192	\$ 100,000	\$ 1,346,099

CAPITAL MAINTENANCE

Albion Dam	\$ 10,853,761	\$ -	\$ -	\$ 986,706	\$ 9,867,055	\$ -	\$ -
Barker Gravity Pipeline Repair	25,412,140	4,143,482	3,759,286	3,618,892	5,337,641	4,197,470	4,355,369
BCH Penstock Repair	5,175,158	100,000	937,012	974,492	1,013,472	1,054,011	1,096,171
Betasso Hydroelectric / PRF	350,000	200,000	150,000	-	-	-	-
Boulder Canyon Hydro	325,000	75,000	-	-	-	250,000	-
Boulder Reservoir	118,434	-	118,434	-	-	-	-
Chatauqua Storage Tank	848,546	-	-	-	-	848,546	-
Distribution Waterline Replacement	25,017,090	3,771,624	3,922,489	4,079,389	4,242,564	4,412,267	4,588,757
Farmer's Ditch	136,857	-	-	136,857	-	-	-
Green Lake 2 Dam Rehabilitation	622,553	-	-	-	-	75,000	547,553
Hydro Facilities Rehab Program	350,219	54,080	56,243	50,000	60,833	63,266	65,797
Instream Flow Structures and Gaging	100,000	50,000	10,000	10,000	10,000	10,000	10,000
Kohler Hydro/PRV Facility	100,000	100,000	-	-	-	-	-
Kossler Dam	450,000	-	-	-	50,000	300,000	100,000
Lakewood Pipeline	384,864	-	-	-	-	-	384,864
Maxwell Hydro/PRV Facility	385,000	100,000	185,000	100,000	-	-	-
Reservoir Water Treatment Facility	600,000	-	600,000	-	-	-	-
Silver Lake Hydroelectric/PRV	450,000	200,000	-	-	-	250,000	-
Skyscraper Dam	171,071	-	-	171,071	-	-	-
Source Pumping and Hydro Rehab	1,076,133	162,240	168,730	175,478	182,498	189,798	197,389
Sunshine Hydroelectric/PRV Facility	300,000	-	-	150,000	150,000	-	-
Utility Billing Computer System	125,000	-	125,000	-	-	-	-
Water Treatment Equipment Repl	412,323	100,000	100,000	50,000	52,000	54,080	56,243
Watershed Improvements	350,000	200,000	30,000	30,000	30,000	30,000	30,000
Zone 1 Transmission Pipes	3,393,874	-	626,601	651,665	677,732	704,841	733,035
Zone 2 Transmission Pipes	4,923,524	-	909,016	945,377	983,192	1,022,519	1,063,420
Zone 3 Transmission Pipes	2,531,914	-	467,460	486,158	505,605	525,829	546,862
TOTAL: CAPITAL MAINTENANCE	\$ 84,963,460	\$ 9,256,426	\$12,165,271	\$12,616,085	\$23,162,592	\$13,987,627	\$13,775,460



FUNDING SUMMARIES: FUNDING BY DEPARTMENT

WATER UTILITY, Continued

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
NEW FACILITY/INFRASTRUCTURE							
Barker Dam Hydroelectric	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ -
NCWCD Conv - Boulder Feeder Canal	800,000	-	160,000	160,000	160,000	160,000	160,000
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 850,000	\$ -	\$ 160,000	\$ 160,000	\$ 210,000	\$ 160,000	\$ 160,000
TOTAL: WATER UTILITY	\$100,029,306	\$10,189,757	\$12,425,271	\$13,738,310	\$34,146,784	\$14,247,627	\$15,281,559



FUNDING SUMMARIES: FUNDING BY PROJECT TYPE

Each CIP project has been classified as a city investment in one of five project types:

- Capital Enhancement
- Capital Maintenance
- Capital Planning Studies
- Land Acquisition
- New Facility/Infrastructure

There is an additional project type of Transfers that is used to indicate cross departmental funding collaborations. While these transfers are included in departmental totals, they are not included when calculating the total of all planned project funding in the CIP. The five project types are defined by the following criteria:

Capital Enhancement:

- Construction results in the expansion or significant improvement of an existing facility or asset.
- Projects have a discrete start and end date.
- Projects are location specific.
- Projects are typically over \$100,000 in total project cost, but do not have to be. Innovation & Technology projects are typically over \$50,000 in total project cost.
- Projects result in a durable, long lasting asset, with a useful life of at least 15 years. Innovation & Technology projects may be as short as 5 years.

Capital Maintenance:

- Project results in the repair, replacement, or renovation of an existing asset.
- Projects may or may not have a discrete start and end date.
- Projects are location specific or programs that cover a geographic area.
- Projects are typically over \$100,000 in

total project cost. Innovation & Technology projects are typically over \$50,000 in total project cost.

Capital Planning Studies:

- Project results in the development of a study or plan which is intended to identify, plan, or prepare for the construction or acquisition of capital assets or a capital program.
- Projects have a discrete start and end date.
- Projects are typically for studies that are over \$100,000 in total cost.

Land Acquisition:

- Project or program results in the acquisition of real property, such as land, mineral or water rights, or permanent easements.
- Projects may have a discrete start and end dates, or may be programmatic.
- Projects or programs may be location specific or citywide.
- Projects or programs typically include acquisitions totaling over \$100,000.

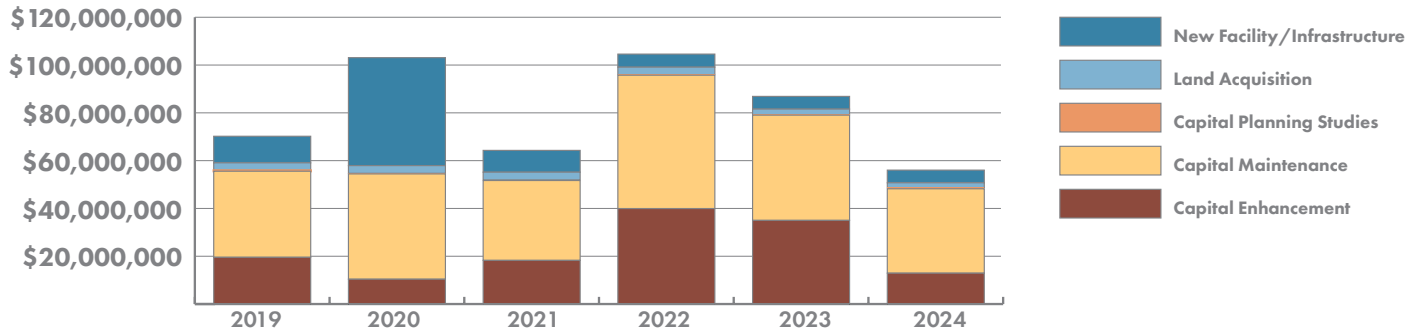
New Facility/Infrastructure:

- Project results in the construction or acquisition of a new asset.
- Construction results in additional square footage of an existing asset.
- Projects have a discrete start and end date.
- Projects are location specific.
- Projects are typically over \$100,000 in total project cost, but do not have to be.
- Projects result in a durable, long lasting asset, with a useful life of at least 15 years.



FUNDING SUMMARIES: FUNDING BY PROJECT TYPE

2019-2024 Funding By Project Type



2019-2024 FUNDING SUMMARY BY PROJECT TYPE

Project Type/ Project Title	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CIP-CAPITAL ENHANCEMENT	\$ 139,590,670	\$ 19,559,765	\$ 11,701,747	\$ 20,023,839	\$ 40,383,605	\$ 35,008,448	\$ 12,913,266
CIP-CAPITAL MAINTENANCE	248,603,424	36,012,512	44,056,081	33,409,722	55,790,810	44,024,787	35,309,513
CIP-CAPITAL PLANNING STUDIES	1,743,333	330,000	270,000	270,000	230,000	180,000	463,333
CIP-LAND ACQUISITION	17,181,958	3,173,704	3,200,704	3,224,989	3,152,360	2,360,474	2,069,727
CIP-NEW FACILITY/INFRASTRUCTURE	81,851,000	11,481,176	45,174,941	9,114,882	5,460,000	5,310,000	5,310,000
TOTAL	\$ 488,970,385	\$ 70,557,157	\$ 104,403,473	\$ 66,043,432	\$ 105,016,775	\$ 86,883,709	\$ 56,065,839



FUNDING SUMMARIES: FUNDING BY PROJECT TYPE

FUNDING BY PROJECT TYPE

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL ENHANCEMENT							
19th St (Norwood to Sumac)	\$ 327,200	\$ 327,200	\$ -	\$ -	\$ -	\$ -	\$ -
2017 MP -Wonderland Creek 1 Stm Sew	386,896	-	-	386,896	-	-	-
Aquatic Facility Enhancements	2,760,000	-	150,000	2,100,000	-	510,000	-
Automated Meter Reading	769,727	-	-	-	-	-	769,727
Barker Dam Outlet	10,399,543	200,000	-	912,225	9,287,318	-	-
Broadway Recon Violet to 36	5,575,000	5,575,000	-	-	-	-	-
Capital Infrastructure Enhancements	2,735,000	-	-	575,000	80,000	1,080,000	1,000,000
CCS Agreements - BMOCA	1,000,000	250,000	250,000	500,000	-	-	-
CCS Agreements - KGNU Radio	1,250,000	900,000	350,000	-	-	-	-
CCS Agreements - Resource Central	1,400,000	-	1,100,000	300,000	-	-	-
CCSV2 Pubic Art Projects	400,000	200,000	200,000	-	-	-	-
Devil's Thumb Storage Tank	1,486,874	-	-	-	1,486,874	-	-
Fourmile Canyon Creek CCS	3,500,000	-	1,314,000	1,752,000	-	-	-
General Park Improvements	2,568,000	428,000	428,000	428,000	428,000	428,000	428,000
Greenways Program	2,076,402	346,067	346,067	346,067	346,067	346,067	346,067
Intersection Safety Projects	817,840	434,440	80,520	302,880	-	-	-
Lakewood Hydroelectric/PRV	350,000	300,000	-	50,000	-	-	-
Local Drainage Improvements	5,866,374	821,241	854,090	986,949	1,026,427	1,067,484	1,110,183
Misc Development Coordination	300,000	50,000	50,000	50,000	50,000	50,000	50,000
Neighborhood Speed Management Progr	1,500,000	250,000	250,000	250,000	250,000	250,000	250,000
Operations Facilities Capital Enhac	1,000,000	-	-	-	-	1,000,000	-
Orodell Hydro/PRV Facility	200,000	100,000	100,000	-	-	-	-
OSMP Long Term Campus Vision	600,000	100,000	100,000	100,000	100,000	100,000	100,000
Pavement Management Program	28,405,850	4,811,600	4,439,000	4,680,250	4,825,000	4,825,000	4,825,000
Pearl Street Hydro/PRV Facility	243,331	243,331	-	-	-	-	-
Regional Collaboration	480,000	80,000	80,000	80,000	80,000	80,000	80,000
Scott Carpenter Pool CCS	2,393,333	2,393,333	-	-	-	-	-
Stormwater Quality Improvements	1,210,709	182,500	190,000	197,390	205,285	213,497	222,037
SW MGMT - Bear Canyon Creek	324,846	-	-	324,846	-	-	-
SW MGMT - Middle Boulder Creek	3,862,873	-	-	3,862,873	-	-	-
Tantra Park Shop Renovation	300,000	-	-	-	300,000	-	-
Upper Goose Crk Storm/Flood Project	24,594,738	-	-	-	-	24,594,738	-
Valmont City Park - Phase 2	2,374,000	100,000	274,000	-	2,000,000	-	-
Wastewater Treatment Facility Pumps	300,000	75,000	75,000	-	150,000	-	-
Water System Security/Quality Imprv	90,000	90,000	-	-	-	-	-
West Senior Center Maj Maint & Reha	700,000	-	-	-	700,000	-	-
Wittemyer Ponds	676,372	-	-	-	-	100,000	576,372
WWTF Activated Sludge	420,716	189,798	-	-	-	-	230,918
WWTF Instrumentation/Control	4,381,552	1,012,255	151,838	-	-	292,496	2,924,963
WWTF Permit Improvements	2,928,861	100,000	919,232	1,838,463	-	71,166	-
WWTF Permit Improvements - Proj. Bo	18,634,634	-	-	-	18,634,634	-	-
TOTAL: CAPITAL ENHANCEMENT	\$ 139,590,670	\$ 19,559,765	\$ 11,701,747	\$ 20,023,839	\$ 40,383,605	\$ 35,008,448	\$ 12,913,266



FUNDING SUMMARIES: FUNDING BY PROJECT TYPE

FUNDING BY PROJECT TYPE

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL MAINTENANCE							
Agriculture and Water Facilities	\$ 960,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 110,000	\$ 110,000	\$ 110,000
Albion Dam	10,853,761	-	-	986,706	9,867,055	-	-
Aquatics Facility Repairs	976,000	-	-	723,000	-	253,000	-
Arapahoe Trunk Sewer Replacement	12,605,000	-	-	-	12,605,000	-	-
Athletic Field Improvements	260,000	-	-	130,000	-	130,000	-
Barker Gravity Pipeline Repair	25,412,140	4,143,482	3,759,286	3,618,892	5,337,641	4,197,470	4,355,369
BCH Penstock Repair	5,175,158	100,000	937,012	974,492	1,013,472	1,054,011	1,096,171
Betasso Hydroelectric / PRF	350,000	200,000	150,000	-	-	-	-
Boulder Canyon Hydro	325,000	75,000	-	-	-	250,000	-
Boulder Reservoir	118,434	-	118,434	-	-	-	-
Boulder Reservoir South Shore	1,100,000	1,100,000	-	-	-	-	-
Building Perf Energy Requirements	600,000	100,000	500,000	-	-	-	-
Chatauqua Storage Tank	848,546	-	-	-	-	848,546	-
Collection System Monitoring	900,000	150,000	150,000	150,000	150,000	150,000	150,000
Columbia Cemetery Capital Maintenan	242,000	106,000	32,000	-	40,000	32,000	32,000
Condition Assessment Program	5,043,683	674,918	701,915	729,992	759,191	1,067,484	1,110,183
Cultural Resource/Facility Restorat	600,000	100,000	100,000	100,000	100,000	100,000	100,000
Data Backup and Disaster Recovery	157,400	-	-	-	53,300	104,100	-
Database Hardware Replacement	150,600	-	19,200	65,600	65,800	-	-
Deferred Facility Maint Projects	8,020,000	2,020,000	2,120,000	880,000	350,000	1,150,000	1,500,000
Deficient Street Light Pole Replace	484,000	-	-	121,000	121,000	121,000	121,000
Distribution Waterline Replacement	25,017,090	3,771,624	3,922,489	4,079,389	4,242,564	4,412,267	4,588,757
Downtown Parking Garage Major Maint	8,982,681	937,040	1,955,766	667,895	853,685	4,012,215	556,080
Drainageway Maintenance/Enhancement	3,310,000	500,000	520,000	540,000	560,000	580,000	610,000
Ecological System Maintenance/Restr	1,630,000	430,000	300,000	300,000	200,000	200,000	200,000
End User Device Replacement	3,909,500	694,000	704,000	720,100	910,400	881,000	-
Facilities Maintenance	2,030,000	530,000	300,000	300,000	300,000	300,000	300,000
Farm Site Improvements	360,000	60,000	60,000	60,000	60,000	60,000	60,000
Farmer's Ditch	136,857	-	-	136,857	-	-	-
Fire Stations Major Maintenance	885,000	140,000	145,000	150,000	150,000	150,000	150,000
Flatiron Golf Course Repairs	3,060,000	260,000	2,300,000	-	-	-	500,000
Fleet - System Repairs/Replacements	570,000	110,000	80,000	80,000	-	220,000	80,000
Four Mile Creek	355,300	355,300	-	-	-	-	-
General Fund Capital	22,014,032	1,606,656	2,904,016	3,451,376	3,998,736	4,866,448	5,186,800
Green Lake 2 Dam Rehabilitation	622,553	-	-	-	-	75,000	547,553
Hydro Facilities Rehab Program	350,219	54,080	56,243	50,000	60,833	63,266	65,797
Incident Command Vehicle (ICV)	750,000	750,000	-	-	-	-	-
Instream Flow Structures and Gaging	100,000	50,000	10,000	10,000	10,000	10,000	10,000
Kohler Hydro/PRV Facility	100,000	100,000	-	-	-	-	-
Kossler Dam	450,000	-	-	-	50,000	300,000	100,000
Lakewood Pipeline	384,864	-	-	-	-	-	384,864
Major Capital Reconstruction	4,960,350	595,350	810,000	855,000	900,000	900,000	900,000
Major Infrastructure Maintenance	2,890,000	990,000	500,000	500,000	300,000	300,000	300,000

Funding by Project Type: Capital Maintenance,
Continued on next page.



FUNDING SUMMARIES: FUNDING BY PROJECT TYPE

FUNDING BY TYPE

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL MAINTENANCE, Continued							
Martin Park Shelter Major Maint	170,000	-	-	170,000	-	-	-
Maxwell Hydro/PRV Facility	385,000	100,000	185,000	100,000	-	-	-
Multiuse Path Capital Maintenance	2,428,539	365,639	399,950	399,950	421,000	421,000	421,000
N Boulder Park Shelter Repair	120,000	-	-	120,000	-	-	-
Neighborhood and Com Park Cap Maint	472,000	-	-	-	-	472,000	-
Neighborhood and Com Park Cap Maint	2,360,000	472,000	472,000	472,000	472,000	-	472,000
Network Hardware Replacement	2,751,800	985,800	795,800	289,600	357,600	323,000	-
New Property Stabilization	1,450,000	450,000	200,000	200,000	200,000	200,000	200,000
Parking Lot Capital Maintenance	1,808,000	840,000	-	300,000	-	318,000	350,000
Ped Facilities Repair, Replace, ADA	3,628,387	546,287	597,550	597,550	629,000	629,000	629,000
Play Court Capital Maintenance	300,000	-	100,000	-	-	200,000	-
Recreation Facility Repairs	1,500,000	500,000	-	-	500,000	-	500,000
Recreation Facility Repairs	500,000	500,000	-	-	-	-	-
Rehab Runway & Eastern Taxiway	5,427,779	-	5,427,779	-	-	-	-
Reservoir Water Treatment Facility	600,000	-	600,000	-	-	-	-
Sanitary Sewer Manhole Rehab	3,290,424	243,331	253,064	657,966	684,285	711,656	740,122
Sanitary Sewer Rehabilitation	20,778,573	3,302,465	3,226,563	3,355,626	3,489,851	3,629,445	3,774,623
Security Administration	120,600	37,600	35,200	30,000	17,800	-	-
Server Hardware Replacement	567,900	33,800	-	512,600	-	21,500	-
Sidewalk Maintenance	1,455,800	225,900	238,450	238,450	251,000	251,000	251,000
Signal Maintenance & Upgrade	400,000	-	-	-	400,000	-	-
Silver Lake Hydroelectric/PRV	450,000	200,000	-	-	-	250,000	-
Skyscraper Dam	171,071	-	-	171,071	-	-	-
Software Replacement	6,700,000	100,000	1,500,000	100,000	-	5,000,000	-
Source Pumping and Hydro Rehab	1,076,133	162,240	168,730	175,478	182,498	189,798	197,389
Storm Sewer Rehabilitation	3,730,729	304,000	632,700	657,966	684,285	711,656	740,122
Sunshine Hydroelectric/PRV Facility	300,000	-	-	150,000	150,000	-	-
Transportation Coordination	3,792,029	365,000	633,000	657,966	684,285	711,656	740,122
Urban Forest Management	2,900,000	500,000	400,000	500,000	500,000	500,000	500,000
Utility Billing Computer System	65,000	-	65,000	-	-	-	-
Utility Billing Computer System	65,000	-	65,000	-	-	-	-
Utility Billing Computer System	125,000	-	125,000	-	-	-	-
Water Treatment Equipment Repl	412,323	100,000	100,000	50,000	52,000	54,080	56,243
Watershed Improvements	350,000	200,000	30,000	30,000	30,000	30,000	30,000
WWTF Cogeneration	4,000,000	4,000,000	-	-	-	-	-
WWTF Digester Cleaning	136,857	-	136,857	-	-	-	-
WWTF Digester Complex	2,200,000	200,000	2,000,000	-	-	-	-
WWTF Primary Clarifiers	665,000	115,000	-	50,000	500,000	-	-
WWTF Rehabilitation	1,500,000	250,000	250,000	250,000	250,000	250,000	250,000
WWTF Secondary Clarifiers	550,000	-	50,000	500,000	-	-	-
Zone 1 Transmission Pipes	3,393,874	-	626,601	651,665	677,732	704,841	733,035
Zone 2 Transmission Pipes	4,923,524	-	909,016	945,377	983,192	1,022,519	1,063,420
Zone 3 Transmission Pipes	2,531,914	-	467,460	486,158	505,605	525,829	546,862
TOTAL: CAPITAL MAINTENANCE	\$ 248,603,424	\$ 36,012,512	\$ 44,056,081	\$ 33,409,722	\$ 55,790,810	\$ 44,024,787	\$ 35,309,513



FUNDING SUMMARIES: FUNDING BY PROJECT TYPE

FUNDING BY TYPE

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL PLANNING STUDIES							
AIRPORT MASTER PLAN	\$ 333,333	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 333,333
Facility Assessments	150,000	-	-	-	100,000	50,000	-
Forestry Emergency Response Plan	50,000	50,000	-	-	-	-	-
Integrated Site Planning	780,000	130,000	130,000	130,000	130,000	130,000	130,000
Master Plan Update	280,000	-	140,000	140,000	-	-	-
TMP Update	150,000	150,000	-	-	-	-	-
TOTAL: CAPITAL PLANNING STUDIES	\$ 1,743,333	\$ 330,000	\$ 270,000	\$ 270,000	\$ 230,000	\$ 180,000	\$ 463,333
LAND ACQUISITION							
Hogan Pancost Land Purchase	\$ 2,883,168	\$ 640,704	\$ 640,704	\$ 640,704	\$ 640,704	\$ 320,352	\$ -
Mineral Rights Acquisition	600,000	100,000	100,000	100,000	100,000	100,000	100,000
OSMP Real Estate Acquisition	8,300,000	1,600,000	1,600,000	1,600,000	1,500,000	1,000,000	1,000,000
Preflood Property Acquisition	4,198,790	633,000	660,000	684,285	711,656	740,122	769,727
Water Rights Acquisition	1,200,000	200,000	200,000	200,000	200,000	200,000	200,000
TOTAL: LAND ACQUISITION	\$ 17,181,958	\$ 3,173,704	\$ 3,200,704	\$ 3,224,989	\$ 3,152,360	\$ 2,360,474	\$ 2,069,727
NEW FACILITY/INFRASTRUCTURE							
30th St and Colorado Bike/Ped Under	\$ 5,000,000	\$ 5,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Barker Dam Hydroelectric	50,000	-	-	-	50,000	-	-
Boulder Junction Pocket Park	350,000	350,000	-	-	-	-	-
Broadband Fiber Backbone	7,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
CCS Agreements - Meals on Wheels	850,000	850,000	-	-	-	-	-
CCS Agreements - Studio Arts	1,250,000	1,250,000	-	-	-	-	-
Fire Station 3 Desn & Construction	7,840,000	300,000	4,791,000	2,749,000	-	-	-
Multiuse Path - Enhancements	1,170,000	135,000	180,000	180,000	225,000	225,000	225,000
NCWCD Conv - Boulder Feeder Canal	800,000	-	160,000	160,000	160,000	160,000	160,000
North Boulder Branch Library - DET fees	1,700,000	-	1,700,000	-	-	-	-
North Boulder Branch Library - CCS	4,650,000	821,176	2,652,941	1,175,882	-	-	-
Ped Facs Enh Missing Links Crossing	650,000	75,000	100,000	100,000	125,000	125,000	125,000
South Boulder Creek - Bond Proceeds	30,741,000	-	30,741,000	-	-	-	-
TIP Local Match TMP Implementation	4,100,000	700,000	800,000	700,000	700,000	600,000	600,000
TIP Local Match/TMP Implementation	15,500,000	800,000	2,850,000	2,850,000	3,000,000	3,000,000	3,000,000
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 81,851,000	\$ 11,481,176	\$ 45,174,941	\$ 9,114,882	\$ 5,460,000	\$ 5,310,000	\$ 5,310,000
TOTAL: CIP FUNDING BY TYPE	\$ 488,970,385	\$ 70,557,157	\$ 104,403,473	\$ 66,043,432	\$ 105,016,775	\$ 86,883,709	\$ 56,065,839



FUNDING SUMMARIES: FUNDING BY FUND

The following 17 funding sources are proposed for the CIP projects:

- .25 Cent Sales Tax Fund
- Airport Fund
- Boulder Junction Capital Improvement Fund
- Capital Development Fund
- Community, Culture, and Safety Tax Fund
- Computer Replacement Fund
- Downtown Commercial District Fund
- Facility Renovation & Replace Fund
- General Fund
- Lottery Fund
- Open Space Fund
- Permanent Park & Recreation Fund
- Stormwater & Flood Management Utility Fund
- Transportation Fund
- Transportation Development Fund
- Wastewater Utility Fund
- Water Utility Fund

Detailed descriptions of all of the city's funds are available in the introduction section of the Approved 2019 Annual Budget - Volume 1. Many of the funds exist to handle dedicated revenues that can only be used for specific types of capital projects. These restrictions provide consistency in planning for project types, but also requires the city to allocate resources to a specific category of infrastructure and maintain existing priorities. The Greenways Program is not a fund as defined above, but is used within the CIP to illustrate the funding structure of the Public Works - Greenways workgroup, and to call out the CIP projects associated with the work of Greenways.

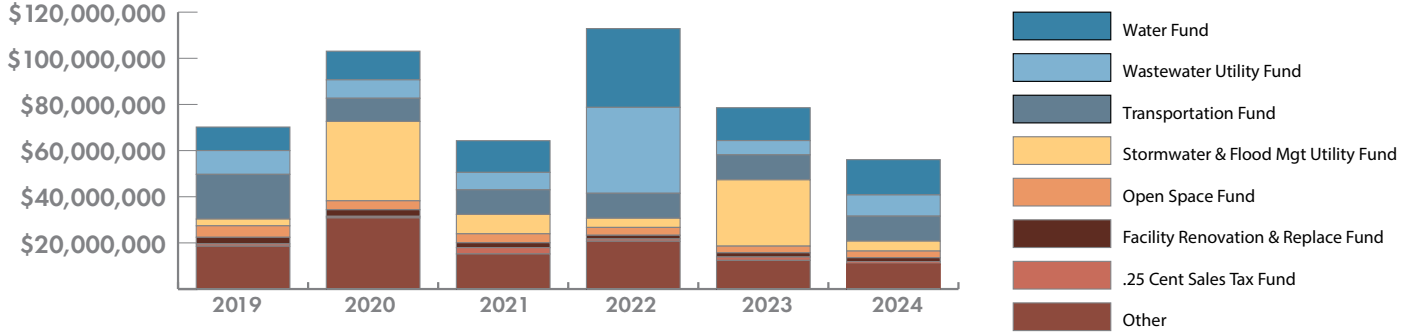
Similar to the department distributions described earlier in this section, the Transportation and Utility Funds are the largest contributors to the city's 2019-2024 CIP.

The following chart shows the distribution of six-year funding by fund.



FUNDING SUMMARIES: FUNDING BY FUND

2019-2024 Funding By Fund



2019-2024 FUNDING SUMMARY BY FUND

Fund	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
.25 CENT SALES TAX FUND	\$ 7,912,000	\$ 1,000,000	\$ 690,000	\$ 2,740,000	\$ 1,000,000	\$ 1,482,000	\$ 1,000,000
AIRPORT FUND	5,761,112	-	5,427,779	-	-	-	333,333
BOULDER JUNCTION CAPITAL IMPROVEMENT FUND	350,000	350,000	-	-	-	-	-
CAPITAL DEVELOPMENT FUND	1,700,000	-	1,700,000	-	-	-	-
CAPITAL IMPROVEMENT CCS FUND	24,533,333	6,964,509	10,657,941	6,476,882	434,000	-	-
COMPUTER REPLACEMENT FUND	7,657,800	1,751,200	1,554,200	1,617,900	1,404,900	1,329,600	-
DOWNTOWN COMMERCIAL DISTRICT FUND	8,982,681	937,040	1,955,766	667,895	853,685	4,012,215	556,080
FACILITY RENOVATION & REPLACEMENT FUND	12,991,000	2,870,000	2,845,000	2,123,000	1,600,000	1,823,000	1,730,000
GENERAL FUND	39,547,200	4,297,360	6,244,720	5,392,080	5,839,440	11,386,800	6,386,800
LOTTERY FUND	3,829,702	934,367	579,067	579,067	579,067	579,067	579,067
OPEN SPACE FUND	21,880,000	4,980,000	3,880,000	3,880,000	3,380,000	2,880,000	2,880,000
PERMANENT PARK & RECREATION FUND	15,289,000	2,928,000	3,178,000	1,477,000	2,592,000	2,760,000	2,354,000
STORMWATER & FLOOD MANAGEMENT UTILITY FUND	82,668,984	2,903,241	34,393,290	8,396,671	3,969,438	28,716,653	4,289,691
TRANSPORTATION FUND	72,637,966	19,388,916	10,042,970	10,672,580	10,844,500	10,844,500	10,844,500
TRANSPORTATION DEVELOPMENT FUND	4,800,000	750,000	850,000	750,000	1,150,000	650,000	650,000
WASTEWATER UTILITY FUND	78,400,300	10,312,767	7,979,469	7,532,047	37,222,961	6,172,247	9,180,809
WATER UTILITY FUND	100,029,306	10,189,757	12,425,271	13,738,310	34,146,784	14,247,627	15,281,559
TOTAL	\$ 488,970,385	\$ 70,557,157	\$104,403,473	\$ 66,043,432	\$105,016,775	\$ 86,883,709	\$ 56,065,839



FUNDING SUMMARIES: FUNDING BY FUND

FUNDING BY FUND

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
.25 SALES TAX FUND							
CAPITAL ENHANCEMENT							
Aquatic Facility Enhancements	\$ 2,760,000	\$ -	\$ 150,000	\$ 2,100,000	\$ -	\$ 510,000	\$ -
TOTAL: CAPITAL ENHANCEMENT	\$ 2,760,000	\$ -	\$ 150,000	\$ 2,100,000	\$ -	\$ 510,000	\$ -
CAPITAL MAINTENANCE							
Neighborhood and Com Park Cap Maint	\$ 472,000	\$ -	\$ -	\$ -	\$ -	\$ 472,000	\$ -
Recreation Facility Repairs	1,500,000	500,000	-	-	500,000	-	500,000
Urban Forest Management	2,900,000	500,000	400,000	500,000	500,000	500,000	500,000
TOTAL: CAPITAL MAINTENANCE	\$ 4,872,000	\$ 1,000,000	\$ 400,000	\$ 500,000	\$ 1,000,000	\$ 972,000	\$ 1,000,000
CAPITAL PLANNING STUDIES							
Master Plan Update	\$ 280,000	\$ -	\$ 140,000	\$ 140,000	\$ -	\$ -	\$ -
TOTAL: CAPITAL PLANNING STUDIES	\$ 280,000	\$ -	\$ 140,000	\$ 140,000	\$ -	\$ -	\$ -
TOTAL: .25 CENT SALES TAX FUND	\$ 7,912,000	\$ 1,000,000	\$ 690,000	\$ 2,740,000	\$ 1,000,000	\$ 1,482,000	\$ 1,000,000

AIRPORT FUND

CAPITAL MAINTENANCE							
Rehab Runway & Eastern Taxiway	\$ 5,427,779	\$ -	\$ 5,427,779	\$ -	\$ -	\$ -	\$ -
TOTAL: CAPITAL MAINTENANCE	\$ 5,427,779	\$ -	\$ 5,427,779	\$ -	\$ -	\$ -	\$ -
CAPITAL PLANNING STUDIES							
AIRPORT MASTER PLAN	\$ 333,333	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 333,333
TOTAL: CAPITAL PLANNING STUDIES	\$ 333,333	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 333,333
TOTAL: AIRPORT FUND	\$ 5,761,112	\$ -	\$ 5,427,779	\$ -	\$ -	\$ -	\$ 333,333

BOULDER JUNCTION CAPITAL IMPROVEMENT FUND

NEW FACILITY/INFRASTRUCTURE							
Boulder Junction Pocket Park	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: BLDR JUNCT CAP IMPROVEMENT FUND	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -

CAPITAL DEVELOPMENT FUND

NEW FACILITY/INFRASTRUCTURE							
North Boulder Branch Library - CCS	\$ 1,700,000	\$ -	\$ 1,700,000	\$ -	\$ -	\$ -	\$ -
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 1,700,000	\$ -	\$ 1,700,000	\$ -	\$ -	\$ -	\$ -
TOTAL: CAPITAL DEVELOPMENT	\$ 1,700,000	\$ -	\$ 1,700,000	\$ -	\$ -	\$ -	\$ -



FUNDING SUMMARIES: FUNDING BY FUND

FUNDING BY FUND

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
CAPITAL IMPROVEMENT CCS FUND							
CAPITAL ENHANCEMENT							
CCS Agreements - BMOCA	\$ 1,000,000	\$ 250,000	\$ 250,000	\$ 500,000	\$ -	\$ -	\$ -
CCS Agreements - KGNU Radio	1,250,000	900,000	350,000	-	-	-	-
CCS Agreements - Resource Central	1,400,000	-	1,100,000	300,000	-	-	-
CCSV2 Pubic Art Projects	400,000	200,000	200,000	-	-	-	-
Fourmile Canyon Creek CCS	3,500,000	-	1,314,000	1,752,000	434,000	-	-
Scott Carpenter Pool CCS	2,393,333	2,393,333	-	-	-	-	-
TOTAL: CAPITAL ENHANCEMENT	\$ 9,943,333	\$ 3,743,333	\$ 3,214,000	\$ 2,552,000	\$ 434,000	\$ -	\$ -
NEW FACILITY/INFRASTRUCTURE							
CCS Agreements - Meals on Wheels	\$ 850,000	\$ 850,000	\$ -	\$ -	\$ -	\$ -	\$ -
CCS Agreements - Studio Arts	1,250,000	1,250,000	-	-	-	-	-
Fire Station 3 Desn & Construction	7,840,000	300,000	4,791,000	2,749,000	-	-	-
North Boulder Branch Library - CCS	4,650,000	821,176	2,652,941	1,175,882	-	-	-
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 14,590,000	\$ 3,221,176	\$ 7,443,941	\$ 3,924,882	\$ -	\$ -	\$ -
TOTAL: CAPITAL IMPROVEMENT CCS	\$ 21,033,333	\$ 6,964,509	\$ 9,343,941	\$ 4,724,882	\$ -	\$ -	\$ -

COMPUTER REPLACEMENT FUND

CAPITAL MAINTENANCE							
Data Backup and Disaster Recovery	\$ 157,400	\$ -	\$ -	\$ -	\$ 53,300	\$ 104,100	\$ -
Database Hardware Replacement	150,600	-	19,200	65,600	65,800	-	-
End User Device Replacement	3,909,500	694,000	704,000	720,100	910,400	881,000	-
Network Hardware Replacement	2,751,800	985,800	795,800	289,600	357,600	323,000	-
Security Administration	120,600	37,600	35,200	30,000	17,800	-	-
Server Hardware Replacement	567,900	33,800	-	512,600	-	21,500	-
TOTAL: CAPITAL MAINTENANCE	\$ 7,657,800	\$ 1,751,200	\$ 1,554,200	\$ 1,617,900	\$ 1,404,900	\$ 1,329,600	\$ -
TOTAL: COMPUTER REPLACEMENT	\$ 7,657,800	\$ 1,751,200	\$ 1,554,200	\$ 1,617,900	\$ 1,404,900	\$ 1,329,600	\$ -

DOWNTOWN COMMERCIAL DISTRICT FUND

CAPITAL MAINTENANCE							
Downtown Parking Garage Major Maint	\$ 8,982,681	\$ 937,040	\$ 1,955,766	\$ 667,895	\$ 853,685	\$ 4,012,215	\$ 556,080
TOTAL: CAPITAL MAINTENANCE	\$ 8,982,681	\$ 937,040	\$ 1,955,766	\$ 667,895	\$ 853,685	\$ 4,012,215	\$ 556,080
TOTAL: DOWNTOWN COMMERCIAL DIST FUND	\$ 8,982,681	\$ 937,040	\$ 1,955,766	\$ 667,895	\$ 853,685	\$ 4,012,215	\$ 556,080



FUNDING SUMMARIES: FUNDING BY FUND

FUNDING BY FUND

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
FACILITY RENOVATION & REPLACEMENT FUND							
CAPITAL ENHANCEMENT							
Tantra Park Shop Renovation	\$ 300,000	\$ -	\$ -	\$ -	\$ 300,000	\$ -	\$ -
West Senior Center Maj Maint & Rehab	700,000	-	-	-	700,000	-	-
TOTAL: CAPITAL ENHANCEMENT	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -

CAPITAL MAINTENANCE

Aquatics Facility Repairs	\$ 976,000	\$ -	\$ -	\$ 723,000	\$ -	\$ 253,000	\$ -
Building Perf Energy Requirements	600,000	100,000	500,000	-	-	-	-
Deferred Facility Maint Projects	8,020,000	2,020,000	2,120,000	880,000	350,000	1,150,000	1,500,000
Fire Stations Major Maintenance	885,000	140,000	145,000	150,000	150,000	150,000	150,000
Fleet - System Repairs/Replacements	570,000	110,000	80,000	80,000	-	220,000	80,000
Martin Park Shelter Major Maint	170,000	-	-	170,000	-	-	-
N Boulder Park Shelter Repair	120,000	-	-	120,000	-	-	-
Recreation Facility Repairs	500,000	500,000	-	-	-	-	-
TOTAL: CAPITAL MAINTENANCE	\$ 11,841,000	\$ 2,870,000	\$ 2,845,000	\$ 2,123,000	\$ 500,000	\$ 1,773,000	\$ 1,730,000

CAPITAL PLANNING STUDIES

Facility Assessments	\$ 150,000	\$ -	\$ -	\$ -	\$ 100,000	\$ 50,000	\$ -
TOTAL: CAPITAL PLANNING STUDIES	\$ 150,000	\$ -	\$ -	\$ -	\$ 100,000	\$ 50,000	\$ -

TOTAL: FACILITY RENOVATION & REPLACEMENT	\$ 12,991,000	\$ 2,870,000	\$ 2,845,000	\$ 2,123,000	\$ 1,600,000	\$ 1,823,000	\$ 1,730,000
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GENERAL FUND

CAPITAL MAINTENANCE

General Fund Capital	\$ 22,014,032	\$ 1,606,656	\$ 2,904,016	\$ 3,451,376	\$ 3,998,736	\$ 4,866,448	\$ 5,186,800
Incident Command Vehicle (ICV)	750,000	750,000	-	-	-	-	-
Software Replacement	6,700,000	100,000	1,500,000	100,000	-	5,000,000	-
TOTAL: CAPITAL MAINTENANCE	\$ 29,464,032	\$ 2,456,656	\$ 4,404,016	\$ 3,551,376	\$ 3,998,736	\$ 9,866,448	\$ 5,186,800

LAND ACQUISITION

Hogan Pancost Land Purchase	\$ 2,883,168	\$ 640,704	\$ 640,704	\$ 640,704	\$ 640,704	\$ 320,352	\$ -
TOTAL: LAND ACQUISITION	\$ 2,883,168	\$ 640,704	\$ 640,704	\$ 640,704	\$ 640,704	\$ 320,352	\$ -

NEW FACILITY/INFRASTRUCTURE

Broadband Fiber Backbone	\$ 7,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 7,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000

TOTAL: GENERAL FUND	\$ 39,547,200	\$ 4,297,360	\$ 6,244,720	\$ 5,392,080	\$ 5,839,440	\$ 11,386,800	\$ 6,386,800
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FUNDING SUMMARIES: FUNDING BY FUND

FUNDING BY FUND

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
LOTTERY FUND							
CAPITAL ENHANCEMENT							
General Park Improvements	\$ 2,568,000	\$ 428,000	\$ 428,000	\$ 428,000	\$ 428,000	\$ 428,000	\$ 428,000
Greenways Program	906,402	151,067	151,067	151,067	151,067	151,067	151,067
TOTAL: CAPITAL ENHANCEMENT	\$ 3,474,402	\$ 579,067	\$ 579,067	\$ 579,067	\$ 579,067	\$ 579,067	\$ 579,067
CAPITAL MAINTENANCE							
Four Mile Creek	\$ 355,300	\$ 355,300	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: CAPITAL MAINTENANCE	\$ 355,300	\$ 355,300	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: LOTTERY FUND	\$ 3,829,702	\$ 934,367	\$ 579,067	\$ 579,067	\$ 579,067	\$ 579,067	\$ 579,067

OPEN SPACE FUND

CAPITAL ENHANCEMENT							
OSMP Long Term Campus Vision	\$ 600,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Regional Collaboration	480,000	80,000	80,000	80,000	80,000	80,000	80,000
TOTAL: CAPITAL ENHANCEMENT	\$ 1,080,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000

CAPITAL MAINTENANCE							
Agriculture and Water Facilities	\$ 960,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 110,000	\$ 110,000	\$ 110,000
Cultural Resource/Facility Restorat	600,000	100,000	100,000	100,000	100,000	100,000	100,000
Ecological System Maintenance/Restr	1,630,000	430,000	300,000	300,000	200,000	200,000	200,000
Facilities Maintenance	2,030,000	530,000	300,000	300,000	300,000	300,000	300,000
Farm Site Improvements	360,000	60,000	60,000	60,000	60,000	60,000	60,000
Major Infrastructure Maintenance	2,890,000	990,000	500,000	500,000	300,000	300,000	300,000
New Property Stabilization	1,450,000	450,000	200,000	200,000	200,000	200,000	200,000
TOTAL: CAPITAL MAINTENANCE	\$ 9,920,000	\$ 2,770,000	\$ 1,670,000	\$ 1,670,000	\$ 1,270,000	\$ 1,270,000	\$ 1,270,000

CAPITAL PLANNING STUDIES							
Integrated Site Planning	\$ 780,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000
TOTAL: CAPITAL PLANNING STUDIES	\$ 780,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000

LAND ACQUISITION							
Mineral Rights Acquisition	\$ 600,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
OSMP Real Estate Acquisition	8,300,000	1,600,000	1,600,000	1,600,000	1,500,000	1,000,000	1,000,000
Water Rights Acquisition	1,200,000	200,000	200,000	200,000	200,000	200,000	200,000
TOTAL: LAND ACQUISITION	\$ 10,100,000	\$ 1,900,000	\$ 1,900,000	\$ 1,900,000	\$ 1,800,000	\$ 1,300,000	\$ 1,300,000

TOTAL: OPEN SPACE FUND	\$ 21,880,000	\$ 4,980,000	\$ 3,880,000	\$ 3,880,000	\$ 3,380,000	\$ 2,880,000	\$ 2,880,000
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FUNDING SUMMARIES: FUNDING BY FUND

FUNDING BY FUND

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
PERMANENT PARK & RECREATION FUND							
CAPITAL ENHANCEMENT							
Capital Infrastructure Enhancements	\$ 2,735,000	\$ -	\$ -	\$ 575,000	\$ 80,000	\$ 1,080,000	\$ 1,000,000
Operations Facilities Capital Enhac	1,000,000	-	-	-	-	1,000,000	-
Valmont City Park - Phase 2	2,374,000	100,000	274,000	-	2,000,000	-	-
TOTAL: CAPITAL ENHANCEMENT	\$ 6,109,000	\$ 100,000	\$ 274,000	\$ 575,000	\$ 2,080,000	\$ 2,080,000	\$ 1,000,000
CAPITAL MAINTENANCE							
Athletic Field Improvements	\$ 260,000	\$ -	\$ -	\$ 130,000	\$ -	\$ 130,000	\$ -
Boulder Reservoir South Shore	1,100,000	1,100,000	-	-	-	-	-
Columbia Cemetery Capital Maintenan	242,000	106,000	32,000	-	40,000	32,000	32,000
Flatiron Golf Course Repairs	3,060,000	260,000	2,300,000	-	-	-	500,000
Neighborhood and Com Park Cap Maint	2,360,000	472,000	472,000	472,000	472,000	-	472,000
Parking Lot Capital Maintenance	1,808,000	840,000	-	300,000	-	318,000	350,000
Play Court Capital Maintenance	300,000	-	100,000	-	-	200,000	-
TOTAL: CAPITAL MAINTENANCE	\$ 9,130,000	\$ 2,778,000	\$ 2,904,000	\$ 902,000	\$ 512,000	\$ 680,000	\$ 1,354,000
CAPITAL PLANNING STUDIES							
Forestry Emergency Response Plan	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: CAPITAL PLANNING STUDIES	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: PERMANENT PARK AND RECREATION FUND	\$ 15,289,000	\$ 2,928,000	\$ 3,178,000	\$ 1,477,000	\$ 2,592,000	\$ 2,760,000	\$ 2,354,000

STORMWATER & FLOOD MANAGEMENT UTILITY FUND

CAPITAL ENHANCEMENT							
2017 MP -Wonderland Creek 1 Stm Sew	\$ 386,896	\$ -	\$ -	\$ 386,896	\$ -	\$ -	\$ -
Fourmile Canyon Creek CCS	3,500,000	-	1,314,000	1,752,000	434,000	-	-
Greenways Program	585,000	97,500	97,500	97,500	97,500	97,500	97,500
Local Drainage Improvements	5,866,374	821,241	854,090	986,949	1,026,427	1,067,484	1,110,183
Stormwater Quality Improvements	1,210,709	182,500	190,000	197,390	205,285	213,497	222,037
SW MGMT - Bear Canyon Creek	324,846	-	-	324,846	-	-	-
SW MGMT - Middle Boulder Creek	3,862,873	-	-	3,862,873	-	-	-
Upper Goose Crk Storm/Flood Project	24,594,738	-	-	-	-	24,594,738	-
TOTAL: CAPITAL ENHANCEMENT	\$ 40,331,436	\$ 1,101,241	\$ 2,455,590	\$ 7,608,454	\$ 1,763,212	\$ 25,973,219	\$ 1,429,720
CAPITAL MAINTENANCE							
Drainageway Maintenance/Enhancement	\$ 3,310,000	\$ 500,000	\$ 520,000	\$ 540,000	\$ 560,000	\$ 580,000	\$ 610,000
Storm Sewer Rehabilitation	3,730,729	304,000	632,700	657,966	684,285	711,656	740,122
Transportation Coordination	3,792,029	365,000	633,000	657,966	684,285	711,656	740,122
Utility Billing Computer System	65,000	-	65,000	-	-	-	-
TOTAL: CAPITAL MAINTENANCE	\$ 10,897,758	\$ 1,169,000	\$ 1,850,700	\$ 1,855,932	\$ 1,928,570	\$ 2,003,312	\$ 2,090,244
LAND ACQUISITION							
Preflood Property Acquisition	\$ 4,198,790	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656	\$ 740,122	\$ 769,727
TOTAL: LAND ACQUISITION	\$ 4,198,790	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656	\$ 740,122	\$ 769,727
NEW FACILITY/INFRASTRUCTURE							
South Boulder Creek - Bond Proceeds	\$ 30,741,000	\$ -	\$ 30,741,000	\$ -	\$ -	\$ -	\$ -
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 30,741,000	\$ -	\$ 30,741,000	\$ -	\$ -	\$ -	\$ -
TOTAL: STORMWATER AND FLOOD MANAGEMENT UTILITY FUND	\$ 86,168,984	\$ 2,903,241	\$ 35,707,290	\$ 10,148,671	\$ 4,403,438	\$ 28,716,653	\$ 4,289,691



FUNDING SUMMARIES: FUNDING BY FUND

FUNDING BY FUND

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
TRANSPORTATION FUND							
CAPITAL ENHANCEMENT							
19th St (Norwood to Sumac)	\$ 327,200	\$ 327,200	\$ -	\$ -	\$ -	\$ -	\$ -
Broadway Recon Violet to 36	5,575,000	5,575,000	-	-	-	-	-
Greenways Program	585,000	97,500	97,500	97,500	97,500	97,500	97,500
Intersection Safety Projects	817,840	434,440	80,520	302,880	-	-	-
Neighborhood Speed Management Progr	1,500,000	250,000	250,000	250,000	250,000	250,000	250,000
Pavement Management Program	28,405,850	4,811,600	4,439,000	4,680,250	4,825,000	4,825,000	4,825,000
TOTAL: CAPITAL ENHANCEMENT	\$ 37,210,890	\$ 11,495,740	\$ 4,867,020	\$ 5,330,630	\$ 5,172,500	\$ 5,172,500	\$ 5,172,500
CAPITAL MAINTENANCE							
Deficient Street Light Pole Replace	\$ 484,000	\$ -	\$ -	\$ 121,000	\$ 121,000	\$ 121,000	\$ 121,000
Major Capital Reconstruction	4,960,350	595,350	810,000	855,000	900,000	900,000	900,000
Multiuse Path Capital Maintenance	2,428,539	365,639	399,950	399,950	421,000	421,000	421,000
Ped Facilities Repair, Replace, ADA	3,628,387	546,287	597,550	597,550	629,000	629,000	629,000
Sidewalk Maintenance	1,455,800	225,900	238,450	238,450	251,000	251,000	251,000
TOTAL: CAPITAL MAINTENANCE	\$ 12,957,076	\$ 1,733,176	\$ 2,045,950	\$ 2,211,950	\$ 2,322,000	\$ 2,322,000	\$ 2,322,000
CAPITAL PLANNING STUDIES							
TMP Update	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: CAPITAL PLANNING STUDIES	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -
NEW FACILITY/INFRASTRUCTURE							
30th St and Colorado Bike/Ped Under	\$ 5,000,000	\$ 5,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Multiuse Path - Enhancements	1,170,000	135,000	180,000	180,000	225,000	225,000	225,000
Ped Facs Enh Missing Links Crossing	650,000	75,000	100,000	100,000	125,000	125,000	125,000
TIP Local Match/TMP Implementation	15,500,000	800,000	2,850,000	2,850,000	3,000,000	3,000,000	3,000,000
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 22,320,000	\$ 6,010,000	\$ 3,130,000	\$ 3,130,000	\$ 3,350,000	\$ 3,350,000	\$ 3,350,000
TOTAL: TRANSPORTATION FUND	\$ 72,637,966	\$ 19,388,916	\$ 10,042,970	\$ 10,672,580	\$ 10,844,500	\$ 10,844,500	\$ 10,844,500
TRANSPORTATION DEVELOPMENT FUND							
CAPITAL ENHANCEMENT							
Misc Development Coordination	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
TOTAL: CAPITAL ENHANCEMENT	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
CAPITAL MAINTENANCE							
Signal Maintenance & Upgrade	\$ 400,000	\$ -	\$ -	\$ -	\$ 400,000	\$ -	\$ -
TOTAL: CAPITAL MAINTENANCE	\$ 400,000	\$ -	\$ -	\$ -	\$ 400,000	\$ -	\$ -
NEW FACILITY/INFRASTRUCTURE							
TIP Local Match TMP Implementation	\$ 4,100,000	\$ 700,000	\$ 800,000	\$ 700,000	\$ 700,000	\$ 600,000	\$ 600,000
TOTAL: NEW FACILITY/INFRASTRUCTURE	\$ 4,100,000	\$ 700,000	\$ 800,000	\$ 700,000	\$ 700,000	\$ 600,000	\$ 600,000
TOTAL: TRANSPORTATION DEVELOPMENT FUND	\$ 4,800,000	\$ 750,000	\$ 850,000	\$ 750,000	\$ 1,150,000	\$ 650,000	\$ 650,000



FUNDING SUMMARIES: FUNDING BY FUND

FUNDING BY FUND

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
WASTEWATER UTILITY FUND							
CAPITAL ENHANCEMENT							
Wastewater Treatment Facility Pumps	\$ 300,000	\$ 75,000	\$ 75,000	\$ -	\$ 150,000	\$ -	\$ -
WWTF Activated Sludge	420,716	189,798	-	-	-	-	230,918
WWTF Instrumentation/Control	4,381,552	1,012,255	151,838	-	-	292,496	2,924,963
WWTF Permit Improvements	2,928,861	100,000	919,232	1,838,463	-	71,166	-
WWTF Permit Improvements - Proj. Bo	18,634,634	-	-	-	18,634,634	-	-
TOTAL: CAPITAL ENHANCEMENT	\$ 26,665,763	\$ 1,377,053	\$ 1,146,070	\$ 1,838,463	\$ 18,784,634	\$ 363,662	\$ 3,155,881
CAPITAL MAINTENANCE							
Arapahoe Trunk Sewer Replacement	\$ 12,605,000	\$ -	\$ -	\$ -	\$ 12,605,000	\$ -	\$ -
Collection System Monitoring	900,000	150,000	150,000	150,000	150,000	150,000	150,000
Condition Assessment Program	5,043,683	674,918	701,915	729,992	759,191	1,067,484	1,110,183
Sanitary Sewer Manhole Rehab	3,290,424	243,331	253,064	657,966	684,285	711,656	740,122
Sanitary Sewer Rehabilitation	20,778,573	3,302,465	3,226,563	3,355,626	3,489,851	3,629,445	3,774,623
Utility Billing Computer System	65,000	-	65,000	-	-	-	-
WWTF Cogeneration	4,000,000	4,000,000	-	-	-	-	-
WWTF Digester Cleaning	136,857	-	136,857	-	-	-	-
WWTF Digester Complex	2,200,000	200,000	2,000,000	-	-	-	-
WWTF Primary Clarifiers	665,000	115,000	-	50,000	500,000	-	-
WWTF Rehabilitation	1,500,000	250,000	250,000	250,000	250,000	250,000	250,000
WWTF Secondary Clarifiers	550,000	-	50,000	500,000	-	-	-
TOTAL: CAPITAL MAINTENANCE	\$ 51,734,537	\$ 8,935,714	\$ 6,833,399	\$ 5,693,584	\$ 18,438,327	\$ 5,808,585	\$ 6,024,928
TOTAL: WASTEWATER UTILITY FUND	\$ 78,400,300	\$ 10,312,767	\$ 7,979,469	\$ 7,532,047	\$ 37,222,961	\$ 6,172,247	\$ 9,180,809



FUNDING SUMMARIES: FUNDING BY FUND

FUNDING BY FUND

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
WATER UTILITY FUND							
CAPITAL ENHANCEMENT							
Automated Meter Reading	\$ 769,727	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 769,727
Barker Dam Outlet	10,399,543	200,000	-	912,225	9,287,318	-	-
Devil's Thumb Storage Tank	1,486,874	-	-	-	1,486,874	-	-
Lakewood Hydroelectric/PRV	350,000	300,000	-	50,000	-	-	-
Orodell Hydro/PRV Facility	200,000	100,000	100,000	-	-	-	-
Pearl Street Hydro/PRV Facility	243,331	243,331	-	-	-	-	-
Water System Security/Quality Imprv	90,000	90,000	-	-	-	-	-
Wittemyer Ponds	676,372	-	-	-	-	100,000	576,372
TOTAL: CAPITAL ENHANCEMENT	\$ 14,215,846	\$ 933,331	\$ 100,000	\$ 962,225	\$ 10,774,192	\$ 100,000	\$ 1,346,099
CAPITAL MAINTENANCE							
Albion Dam	\$ 10,853,761	\$ -	\$ -	\$ 986,706	\$ 9,867,055	\$ -	\$ -
Barker Gravity Pipeline Repair	25,412,140	4,143,482	3,759,286	3,618,892	5,337,641	4,197,470	4,355,369
BCH Penstock Repair	5,175,158	100,000	937,012	974,492	1,013,472	1,054,011	1,096,171
Betasso Hydroelectric / PRF	350,000	200,000	150,000	-	-	-	-
Boulder Canyon Hydro	325,000	75,000	-	-	-	250,000	-
Boulder Reservoir	118,434	-	118,434	-	-	-	-
Chatauqua Storage Tank	848,546	-	-	-	-	848,546	-
Distribution Waterline Replacement	25,017,090	3,771,624	3,922,489	4,079,389	4,242,564	4,412,267	4,588,757
Farmer's Ditch	136,857	-	-	136,857	-	-	-
Green Lake 2 Dam Rehabilitation	622,553	-	-	-	-	75,000	547,553
Hydro Facilities Rehab Program	350,219	54,080	56,243	50,000	60,833	63,266	65,797
Instream Flow Structures and Gaging	100,000	50,000	10,000	10,000	10,000	10,000	10,000
Kohler Hydro/PRV Facility	100,000	100,000	-	-	-	-	-
Kossler Dam	450,000	-	-	-	50,000	300,000	100,000
Lakewood Pipeline	384,864	-	-	-	-	-	384,864
Maxwell Hydro/PRV Facility	385,000	100,000	185,000	100,000	-	-	-
Reservoir Water Treatment Facility	600,000	-	600,000	-	-	-	-
Silver Lake Hydroelectric/PRV	450,000	200,000	-	-	-	250,000	-
Skyscraper Dam	171,071	-	-	171,071	-	-	-
Source Pumping and Hydro Rehab	1,076,133	162,240	168,730	175,478	182,498	189,798	197,389
Sunshine Hydroelectric/PRV Facility	300,000	-	-	150,000	150,000	-	-
Utility Billing Computer System	125,000	-	125,000	-	-	-	-
Water Treatment Equipment Repl	412,323	100,000	100,000	50,000	52,000	54,080	56,243
Watershed Improvements	350,000	200,000	30,000	30,000	30,000	30,000	30,000
Zone 1 Transmission Pipes	3,393,874	-	626,601	651,665	677,732	704,841	733,035
Zone 2 Transmission Pipes	4,923,524	-	909,016	945,377	983,192	1,022,519	1,063,420
Zone 3 Transmission Pipes	2,531,914	-	467,460	486,158	505,605	525,829	546,862
TOTAL: CAPITAL MAINTENANCE	\$ 84,963,460	\$ 9,256,426	\$ 12,165,271	\$ 12,616,085	\$ 23,162,592	\$ 13,987,627	\$ 13,775,460
NEW FACILITY/INFRASTRUCTURE							
Barker Dam Hydroelectric	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ -
NCWCD Conv - Boulder Feeder Canal	800,000	-	160,000	160,000	160,000	160,000	160,000
TOTAL: NEW FACILITY/ INFRASTRUCTURE	\$ 850,000	\$ -	\$ 160,000	\$ 160,000	\$ 210,000	\$ 160,000	\$ 160,000
TOTAL: WATER UTILITY FUND	\$ 100,029,306	\$ 10,189,757	\$ 12,425,271	\$ 13,738,310	\$ 34,146,784	\$ 14,247,627	\$ 15,281,559
TOTAL: CIP FUNDING BY FUND	\$ 488,970,385	\$ 70,557,157	\$ 104,403,473	\$ 66,043,432	\$ 105,016,775	\$ 86,883,709	\$ 56,065,839



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3 | DEPARTMENT OVERVIEWS

Community Vitality

Facilities & Asset Management

Fire-Rescue

Innovation & Technology

Library & Arts

Open Space & Mountain Parks

Parks & Recreation

Police

Transportation

Utilities & Greenways

Citywide



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COMMUNITY VITALITY



OVERVIEW OF DEPARTMENT MISSIONS/GOALS

The department of Community Vitality was created in late 2015, integrating the Downtown and University Hill Management Division/Parking Services Division with the city’s economic vitality work group. Community Vitality focuses on three service areas: Access and Parking Services, District Management (Downtown, University Hill and Boulder Junction) and citywide economic vitality. The department focuses on place-based management with integration of the city’s core sustainability goals – economic, social and environmental.

Access and Parking Services supports the community’s multi-modal strategy – bikes, transit, pedestrians and vehicles. The department manages public parking on and off-street in the three parking districts (Downtown, University Hill and Boulder Junction) and in collaboration with travel demand management programs (Eco Pass, car and bike

share) to create a full menu of access options for employees, customers and visitors. Access and Parking Services also encompasses citywide parking enforcement and the management of the 11 Neighborhood Parking Program zones.

District Management focuses on management and permitting of public spaces, such as the Pearl Street Mall and citywide special events as well as integration with other city departments (e.g., Parks & Recreation) and business associations (e.g., Downtown Business Improvement District, Downtown Boulder Partnership, Hill Boulder) to ensure safe, welcoming and vibrant public gathering areas and events.

Economic Vitality supports businesses citywide, focusing on primary employer retention, business services, and promoting innovation in partnership with local economic and business organizations.





COMMUNITY VITALITY

CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

The Central Area General Improvement District (CAGID) Parking Structure Asset Management Plan was completed in late 2017. It identifies capital projects and repair and replacement needs and anticipated costs over a ten-year period for all five CAGID parking structures. Using the assessment, the focus for capital planning and projects in 2019 builds on work completed in 2018 and focuses

on ongoing repairs and preservation of these aging facilities. Maintaining CAGID facilities and improving the user experience is a priority identified by the Downtown Management Commission. The garages are gateways to downtown and therefore, part of supporting a vibrant retail and community gathering environment. Public art will be integrated into all capital projects as part of improving the user experience.

Downtown/Pearl Street Mall amenity repairs and replacement include ongoing allocations for replacement of elements such as the pop jet fountain and refurbishment of the 1400 block map.

FUNDING OVERVIEW

Community Vitality manages programs in five funds:

Downtown Commercial District Fund: including restricted Central Area General Improvement District (CAGID) parking and tax revenues and on-street parking meter revenues.

University Hill Commercial District Fund: including restricted University Hill General Improvement District (UHGID) parking and tax revenues and on-street parking meter revenues.

Two Boulder Junction Access District (BJAD) Funds: Parking fund and Travel Demand Management (TDM) fund – including district tax revenues and PILOT (payment in lieu of taxes) payments, and parking revenues.

General Fund: including on-street parking revenue, Neighborhood Parking Permit program revenues, and parking enforcement revenues.

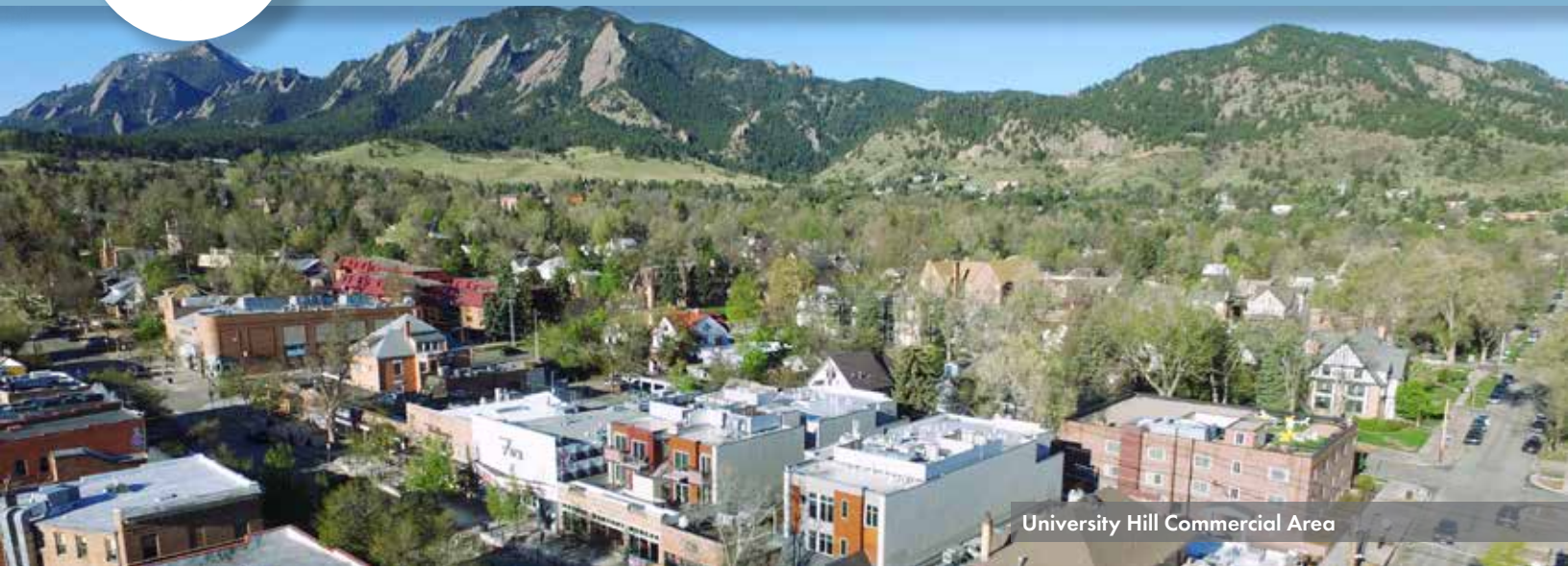
RECENT ACCOMPLISHMENTS

- **Trinity Commons (2200 Broadway) Construct mixed use Garage.** Completion and initial operation in 2018.
- **15th & Pearl and 11th & Spruce garages Stairwell replacement.** Design and substantial progress in 2018.
- **15th & Pearl Elevators Repair & Refurbishment.** Completed 2018.
- **Five Garages Install EV Charging Stations.** Completed 2018.
- **Five Garages Major Maintenance**
 - Randolph - Repair columns, wall cap.
 - Spruce – joint, deck sealant and water mitigation.
 - RTD – ramp, joint and deck sealant replacement.
 - St Julien. Fire system junction boxes, and wiring upgrade.





COMMUNITY VITALITY



University Hill Commercial Area

- **Downtown/Pearl Street Mall Improvements/Replacements.** 15th Street Kiosk Completed.
- **Hill Event Street (Community, Culture, and Safety tax project).** First year in operation.

OPERATING AND MAINTENANCE IMPACTS

Operations in portions of garages may be temporarily disrupted at times during the project work. These capital improvements will reduce maintenance needs.

UNFUNDED PROJECTS AND EMERGING NEEDS

The capital needs assessment identifies \$12,143,220 of parking structure facilities capital projects and repair and replacement suggested over a period of ten years based on current conditions and urgency of attention.

2019 CAPITAL PROJECTS

- **10th and Walnut Parking Structure:** waterproofing and concrete refinishing
- **11th and Walnut Parking Structure (Randolph Center):** waterproofing and concrete refinishing
- **11th and Spruce Parking Structure:** sanitary sewer replacement fire system pull box and junctions
- **14th and Walnut (RTD), 11th and Spruce, 1500 Pearl:** exterior brick and mortar repairs for deficiencies, rust and refurbish; glazing





COMMUNITY VITALITY



15th & Pearl Parking Garage

CEAP PROJECTS

N/A

BOARD ACTION

The Downtown Management Commission (DMC) unanimously approved the following resolution in support of the Community Vitality/Parking CIP at its July 10, 2018 meeting:

Motion to approve the 2019 recommended expenditures from the Downtown Commercial District Fund.

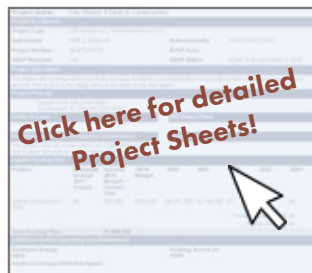
2019 - 2024 CAPITAL IMPROVEMENT PLAN

Community Vitality Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 8,982,681	\$ 937,040	\$ 1,955,766	\$ 667,895	\$ 853,685	\$ 4,012,215	\$ 556,080
Capital Maintenance Total	\$ 8,982,681	\$ 937,040	\$ 1,955,766	\$ 667,895	\$ 853,685	\$ 4,012,215	\$ 556,080
Downtown Parking Garage Major Maint	\$ 8,982,681	\$ 937,040	\$ 1,955,766	\$ 667,895	\$ 853,685	\$ 4,012,215	\$ 556,080

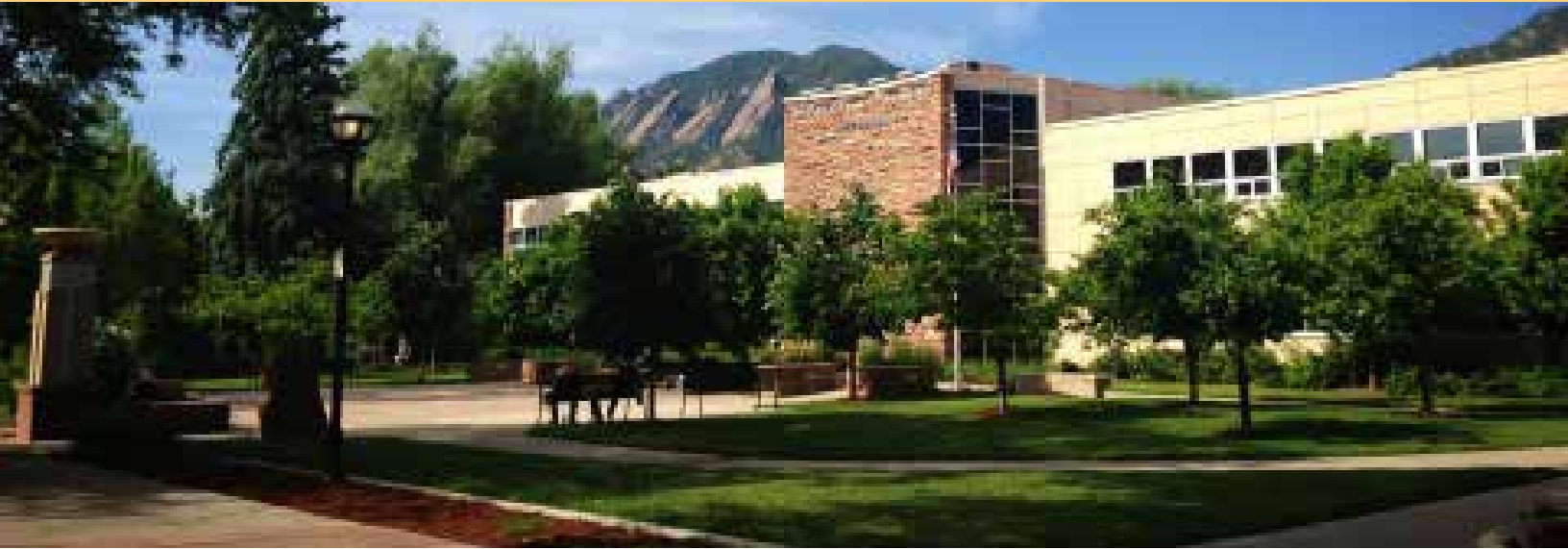
Beginning in 2012, \$250,000 per year was allocated for ongoing repairs/renovations to maintain the CAGID garages in good standing. In 2016, a consulting firm was hired to develop a Parking Structure Asset Management Plan. As a result of that plan, a ten year capital plan for major maintenance projects was developed and includes, but is not limited to: epoxy coating of exposed garage decks, painting (interior and exterior), major elevator repairs, and concrete deterioration repairs and concrete finishing (major and minor), sanitary sewer replacements, fire system pull boxes and junctions upgrades as needed, as well as exterior brick and mortar repairs, rust and refurbishing. Many of these procedures require significant funding and are part of a rotating maintenance schedule. The consultant assessment has shown that the original allocation of \$250,000 per year will need to be increased substantially in the upcoming ten-year period. The intent is to maintain the garages regularly to avoid or delay significant capital outlay resulting from deferred maintenance.

The Parking Structure Asset Assessment Plan will show a 10-year look ahead in the 2019 CIP for what is needed to facilitate proper upkeep on these resources.





FACILITIES & ASSET MANAGEMENT



OVERVIEW OF DEPARTMENT MISSIONS/GOALS

The Facilities & Asset Management (FAM) Division provides leadership and expertise to promote the efficient and effective use of resources and space, and coordinate or directly manage the maintenance and replacement of city facilities and equipment.

CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

Sustaining or improving maintenance of existing assets is the focus of FAM's capital improvement program. From 2015 to 2017, assessments have quantified the FAM deferred maintenance backlog to \$15.3 million for 135 facilities and structures that FAM has responsibility for out of the 380 facilities and structures throughout the city. The FAM deferred maintenance backlog impacts General Fund departments and the services they provide, which

includes libraries, recreation centers, fire stations, police and many administration facilities. FAM's CIP is nearly all programmed for capital maintenance to reduce the backlog to below \$6 million within seven years. In accordance with the FAM Master Plan, the reduction in backlog will bring the overall facilities rating of "poor" to "good".

RECENT ACCOMPLISHMENTS

In 2018, FAM contributed to the completion of the following projects:

- **Radio Communications System.** Completed siting and construction on two radio tower sites supporting the new radio system that moved the city system from an outdated analog system to a full digital and highly redundant system.





FACILITIES & ASSET MANAGEMENT

FUNDING OVERVIEW

The Facilities & Asset Management (FAM) CIP is supported by the following funds:

Capital Development Fund: The Capital Development Fund accounts for development fees to be utilized for the construction of capital improvements related to new development and growth. Funding for the Capital Development Fund is provided through the development excise tax (DET) and impact fees. In 1987, DET was instituted to fund capital improvements related to growth and is paid by new commercial and residential development. Beginning in 2010, excise taxes previously collected for new construction for Fire-Rescue, Housing & Human Services, Library, Police and Municipal Facilities ceased and were replaced with impact fees. In addition, Parks & Recreation was added to the list of departments collecting impact fees.

Facility Renovation and Replacement Fund: The Facility Renovation and Replacement Fund (FR&R) accounts for major maintenance (projects >\$3,000), renovation (greater than 50 percent building system replacements) and replacement (100% building system replacements) projects for 135 FAM maintained buildings, structures and property. Most of FR&R funding comes from the General Fund (GF) and transfers from the Parks & Recreation 0.25 sales tax. The FR&R fund also receives funding from restricted and enterprise funds for specific departmental projects including environmental remediation work.

- **Brenton Building.**
Completed the whole-building renovation on the city's first non-natural gas building with a first-ever variable refrigerant flow heating and air conditioning system in Boulder.
- **Alpine-Balsam Site.**
Completed a deconstruction analysis of the hospital portion of the former Boulder Community Health (BCH) site to inform demolition and maintenance options when BCH vacates in mid-2019.
- **Outdoor Lighting Compliance.**
Replaced 1,170 of the 4,500 total outdoor lighting fixtures on city facilities that were not meeting outdoor lighting requirements to be fully compliant by the original July 2018 deadline.
- **Deferred Maintenance Backlog.**
For 2018, \$1.4 million of FAM's \$1.7 million went towards reducing the backlog. HVAC systems were replaced within the Municipal Building along with replacing the 23-year-old roof.

OPERATING AND MAINTENANCE IMPACTS

As FAM performs building system replacements, whole building energy analyses are also being completed to consider deep energy retrofits to meet the city's Climate Commitment of 80 percent reduction of GHG emissions in city operations by 2030. While the replacements result in significantly higher costs, the use of natural gas in city buildings can be eliminated.





FACILITIES & ASSET MANAGEMENT



Fire Station 1

UNFUNDED PROJECTS AND EMERGING NEEDS

Using FR&R fund reserves to reduce the backlog will zero the reserves by 2022 (see Facility Deferred Maintenance in the text box to the right). Unfunded amounts from 2022 to 2024 total \$1.8 million.

As required by the city's Building Performance Ordinance, energy audits in 2019 for city buildings greater than 5,000 square feet may require additional energy efficiency measures be performed above and beyond the planned retro commissioning in 2020.

CEAP PROJECTS

N/A

BOARD ACTION

As an internal service, FAM does not have a Board or Commission.

2019 CAPITAL PROJECTS

- **Facility Deferred Maintenance Projects:** \$1.1 million is being added to FAM's CIP from FR&R fund reserves to reduce the backlog; significantly increased funding to \$10 million over 2019 to 2024 to bring down the current backlog of \$15.3 million with another \$8 million in backlog occurring during the planning period.
- **Fire Stations Major Maintenance:** provides the renovation and replacement of building systems in 8 fire stations in accordance with industry standards due to the high use of these 24/7 facilities.
- **Building Performance Energy Requirements:** to meet Boulder's Building Performance Ordinance, city buildings greater than 5,000 square feet will have energy audits performed in 2019 with retro-commissioning to follow in 2020.





FACILITIES & ASSET MANAGEMENT

2019 - 2024 CAPITAL IMPROVEMENT PLAN

Facilities & Asset Management Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 12,991,000	\$ 2,870,000	\$ 2,845,000	\$ 2,123,000	\$ 1,600,000	\$ 1,823,000	\$ 1,730,000
Capital Enhancement Total	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -
Tantra Park Shop Renovation	\$ 300,000	\$ -	\$ -	\$ -	\$ 300,000	\$ -	\$ -

Renovate the Tantra Park Shop for continuing use for Park Operations maintenance staff. The 3,000 square foot facility, constructed in 1984, needs repairs and renovations to major building systems. At this time, no specific scope has been identified for this project planned in 2022.

West Senior Center Maj Maint & Reha	\$ 700,000	\$ -	\$ -	\$ -	\$ 700,000	\$ -	\$ -
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This project provides refurbishment and replacement in the building including HVAC, electrical and plumbing systems. It renews all surface finishes including carpet, paint and ceilings. It provides improvements to restrooms and adds a fire sprinkler system, which is currently lacking, to the entire facility as required by B.R.C. 10-8, Fire Prevention Code. It also provides for requirements under which ADA standards and Boulder Energy Codes. Finally, it replaces 1995 roof sections as required. The facilities asset assessments identified the deferred maintenance backlog of \$758,000 at the end of 2018. Another \$340,000 will come up for replacement from 2019 to 2025. Additional funding from the Facility Deferred Maintenance Projects CIP will be available for the additional backlog. This project was scheduled for 2020, but the majority has been moved to 2024 to coincide with area planning and city facilities planning for Alpine-Balsam and the Civic Area. A portion remains in 2020 for minor maintenance to coincide with a possible consolidation of Human Services into the West Senior Center.

Capital Maintenance Total	\$ 11,841,000	\$ 2,870,000	\$ 2,845,000	\$ 2,123,000	\$ 500,000	\$ 1,773,000	\$ 1,730,000
Aquatics Facility Repairs	\$ 976,000	\$ -	\$ -	\$ 723,000	\$ -	\$ 253,000	\$ -

As part of recommendations of the recreation master plan and the recently completed Aquatics Facility Study (AFS) the Parks and Recreation (P&R) department has identified deferred maintenance needs within P&R existing facilities. P&R operates 11 pools within the city including indoor and outdoor leisure pools, lap pools and hot tubs. As part of the Aquatics Facility Study ongoing maintenance and repairs to recreation facilities have been prioritized starting with the three indoor facilities. Pools are an integral component in providing health and wellness programs as well as generating revenues for the city. 2021 funding will address high and medium priority items identified in AFS for East Boulder Recreation Center. 2023 funding will remedy the high and medium priority deficiencies at South Boulder Recreation Center and Spruce Pool.

Building Perf Energy Requirements	\$ 600,000	\$ 100,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
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Perform energy assessments and retro commissioning (RCx) to comply with Boulder Building Performance Ordinance (BPO) (Ordinance no. 8071). The RCx requires implementing cost effective RCx measures within two years of the study. FAM will be performing the energy assessments, RCx, and implement cost-effective measures on buildings greater than 5,000 square feet.

Deferred Facility Maint Projects	\$ 8,020,000	\$ 2,020,000	\$ 2,120,000	\$ 880,000	\$ 350,000	\$ 1,150,000	\$ 1,500,000
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FAM contracted in 2016 to prepare a Facilities Strategic Plan for 22 essential city facilities (Fire stations, Public Safety Building, Municipal Buildings, Recreation Centers and Libraries). All equipment in the facilities were inspected, documented and imported into an Asset Management software. FAM developed building and system priorities. For example, a recreation center is maintained to a higher standard than a maintenance shop, and roofing systems are given a higher priority than interior finishes. The software program takes that information and produces a prioritized 10 year work plan for the 17 General Fund facilities to work down backlog items and replace building components on schedule. Replacements funded with this project include HVAC systems, boilers, parking lot repairs, and various other building systems.

Fire Stations Major Maintenance	\$ 885,000	\$ 140,000	\$ 145,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
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The 24/7 occupancy of the city's eight fire stations and the status as essential facilities requires a higher level of maintenance. This annual CIP project will be distributed among the eight Boulder fire stations to maintain finishes to industry standards, and upgrade kitchen, dining and living areas. Work on Fire Station 3 will be limited due to potential future replacement.

Fleet - System Repairs/Replacements	\$ 570,000	\$ 110,000	\$ 80,000	\$ 80,000	\$ -	\$ 220,000	\$ 80,000
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Fleet Services has made significant repairs and investments to their facility, which was constructed in 1989. A 2016 comprehensive facilities assessment identified deferred maintenance backlog that are have been programmed into the CIP. In addition, technology changes in the last 20 years have required changes to fleet's service equipment and building systems. For 2019, training requirements will be increased by a new city-wide radio system, advanced asset management systems and new vehicle technologies that require fleet mechanic certification. Improvements to the entry are also desired to improved the customer experience and prevent entry of customers into the work bays.

Martin Park Shelter Major Maint	\$ 170,000	\$ -	\$ -	\$ 170,000	\$ -	\$ -	\$ -
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The P&R Round 1, Capital Investment Strategy project improved the shelter's exterior to include ADA access to the shelters, lighting upgrades, amenities (benches/tables), bear proof trash/recycling receptacles and concrete flatwork. FR&R funding was not available with 2013/2014 CIS project. This project upgrades the plumbing and fixtures and renews interior and exterior surface finishes of this facility constructed in 1962. Minor cosmetic work totaling \$16,000 was last done in 2007. Code upgrades for the electrical systems will also be accomplished as required with any major renovation project.





FACILITIES & ASSET MANAGEMENT

Facilities & Asset Management Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
N Boulder Park Shelter Repair	\$ 120,000	\$ -	\$ -	\$ 120,000	\$ -	\$ -	\$ -

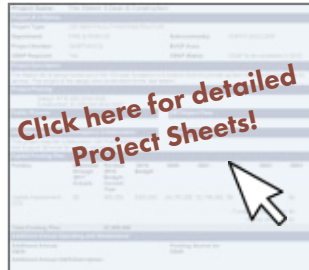
The P&R Round 1, Capital Investment Strategy project improved the shelter's exterior to included ADA access to the shelters, lighting upgrades, amenities (benches/tables), bear proof trash/recycling receptacles and concrete flatwork. FR&R funding was not available to time with CIS project. This project upgrades the plumbing systems and fixtures and renews interior and exterior surface finishes of the facility built in 1969. Minor concrete work totaling \$19,000 was last done in 2007. Electrical code upgrades will also be accomplished as required with major renovation projects.

Recreation Facility Repairs	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -
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The recreation master plan indicates several key themes that relate to health and wellness, youth activity, community engagement and asset management. To continue supporting these key themes, the city will be providing repairs, renovations and upgrades to recreation centers. In 2016, the P&R department completed a strategic plan for all recreation centers that illustrates implementation priority for critical projects. This project will fund the initial implementation projects outlined within the plan.

Capital Planning Studies Total	\$ 150,000	\$ -	\$ -	\$ -	\$ 100,000	\$ 50,000	\$ -
Facility Assessments	\$ 150,000	\$ -	\$ -	\$ -	\$ 100,000	\$ 50,000	\$ -

This project funds the study and analysis of facility assets. Visual inspections and sampling of materials are performed in city facilities to have a hazard inventory of any asbestos, lead based paint and other indoor air quality concerns. Code and safety deficiencies in existing facilities are also identified. This type of inventory provides awareness to building occupants, maintenance staff, construction personnel and emergency responders and identifies remediation projects, as needed. This is a multi-year program to complete the inventory of the 135 facilities managed by Facilities & Asset Management (FAM).



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FIRE-RESCUE



OVERVIEW OF DEPARTMENT MISSIONS / GOALS

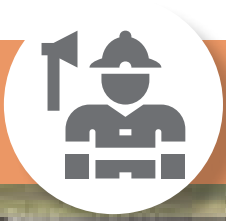
Boulder Fire-Rescue provides emergency response to fires, medical emergencies, disasters, rescues and hazardous materials releases in Boulder. The 124 firefighters, engineers, station officers, chief officers, training division personnel, wildland division personnel, community risk reduction personnel and management staff work together to prevent emergencies from happening and to mitigate them when they do.

CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

With the passage of the Community, Culture, and Safety tax in November 2017, Fire-Rescue is moving forward with the relocation of Fire Station #3. Fire Station #3 is being moved out of the 100-year floodplain to a location that will provide quicker response to more calls for service. Fire-Rescue is currently in the process of identifying and acquiring land and it is anticipated that land will be acquired by the end of 2018. Plan design, site preparation and construction will begin shortly thereafter.

Fire-Rescue is updating its master plan in 2018. This update will inform future CIPs as it will incorporate a facility, equipment and staffing needs assessment for a potential expansion into fire-based advanced life support (paramedicine) and transport.





FIRE-RESCUE



FUNDING OVERVIEW

The Fire-Rescue Department is operationally funded by the **General Fund**. Funding for the Boulder Fire-Rescue's capital needs are also funded out of the General Fund in addition to Boulder Fire-Rescue's portion of development excise taxes and impact fees that reside in the Capital Development Fund. In both instances, funding is sourced on an opportunistic case by case basis given the high dollar value of Fire-Rescue's capital needs. Potential sources of funding for Fire-Rescue's capital projects could include any combination of the below:

- An increase in sales and use tax;
- An increase in property tax mill levy; and/or
- Bond funding.

RECENT ACCOMPLISHMENTS

Although not identified in the CIP, Fire-Rescue received funding for and installed a new Station Alerting system which became fully operational in latter part of 2017. The new technology allows for simultaneous dispatch of multiple stations and automated information flow to reduce emergency response times.

OPERATING AND MAINTENANCE IMPACTS

Relocating Fire Station #3 will reduce facility maintenance and energy costs. In addition, the new station will include community and shared meeting space that could be used by other departments in the city as well as community members.

UNFUNDED PROJECTS AND EMERGING NEEDS

Fire-Rescue has three identified unfunded capital projects. The first project relates to the purchase of reserve Self-Contained Breathing Apparatus (SCBA) that can be used during training and in cases of front-line equipment failure. The current funding for front-line SCBA replacement within the General





FIRE-RESCUE

Fund is not sufficient to support the purchase of reserves. The second and third projects involve the relocation of Fire Station #4 and the remodel or relocation of Fire Station #2. Both projects would remedy the size and functionality deficiencies that currently exist at the out dated stations.

CEAP PROJECTS

N/A

BOARD ACTION

Fire-Rescue does not have an advisory board.

2019 CAPITAL PROJECTS

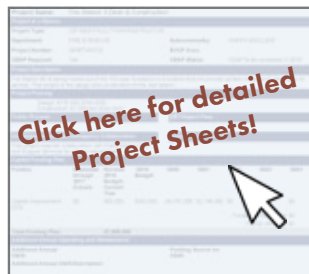
- **Fire Station #3 Relocation**

2019 - 2024 CAPITAL IMPROVEMENT PLAN

Fire-Rescue Projects

Fire-Rescue Projects	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 7,840,000	\$ 300,000	\$ 4,791,000	\$ 2,749,000	\$ -	\$ -	\$ -
New Facility/Infrastructure Total	\$ 7,840,000	\$ 300,000	\$ 4,791,000	\$ 2,749,000	\$ -	\$ -	\$ -
Fire Station 3 Desn & Construction	\$ 7,840,000	\$ 300,000	\$ 4,791,000	\$ 2,749,000	\$ -	\$ -	\$ -

Fire Station #3 is being moved out of the 100-year floodplain to a location that will provide quicker response to more calls for service. This project is the design and construction of the new station.



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INNOVATION & TECHNOLOGY



OVERVIEW OF DEPARTMENT MISSIONS / GOALS

The mission of the Innovation & Technology (IT) Department is to create an environment of seamless integration between people and technology.

CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

For 2019 and 2020 major projects are planned. One is the replacement of some of the city's network backbone infrastructure funded by the Computer Replacement Fund (CRF). The council's current discussion around Broadband and possible results of a ballot initiative may have an impact on this project. Secondly, initiation of the project around web information architecture and digital transformation, which would include a major replacement of the Web site platform. Both of

these projects will kick off in 2019 and continue into 2020. Additionally, there will be a number of hardware replacements completed.

RECENT ACCOMPLISHMENTS

- Completion of the virtual server and storage environment.
- Establish software replacement projects within the CIP.
- Continue to roll out managed print project.
- Developed a strategy for and begin implementation of data center redundancy project





INNOVATION & TECHNOLOGY

FUNDING OVERVIEW

Both the **Computer Replacement Fund (CRF)** and the **Telecommunications Fund (TF)** have been used to progressively accumulate replacement reserves for existing personal computers, server equipment, network infrastructure, central telephone systems and associated operating system and database costs.

These systems represent the critical IT capital infrastructure upon which all the major IT CIP projects and existing city computer applications fundamentally depend.

The revenue received in the Computer Replacement Fund is collected via charges to all city departments.

The current source of revenue for software replacement will be an annual General Fund appropriation. This funding source is sufficient to cover replacement of the core enterprise systems originally funded by the 2012 Capital Improvement Bond, but it is not sufficient to provide for improvements or replacements of all IT systems.

OPERATING AND MAINTENANCE IMPACTS

A majority of IT's CIP is comprised of assets that already have maintenance and operations funding is already established in existing budgets. One exception is the project related to the city's website. That project is projected to require additional operating funds of approximately \$150,000 in new funding annually.

UNFUNDED PROJECTS AND EMERGING NEEDS

In the fall of 2017, IT and Budget collaborated on evaluation of the unfunded liabilities and technical debt of our application environment. While total replacement costs are difficult to determine because of market forces, the team estimated on the low end, that total system replacement would be \$8M, a more realistic estimate is the high end at \$18M. The city currently has roughly 200 applications, many of which have no plan for maintenance at all. The department currently estimates a system lifecycle at 7 years, but see variation in how long departments can use outdated systems. If that lifecycle was held, a significant number of city systems are up for replacement in the next 3 to 5 years or are long past due based on their implementation dates.

In April of 2018, the IT department provided recommendations to support cost reduction efforts around the city that included consolidating systems, websites and tools. The department believes this will continue to be an important cost management lever to pull. That said, often this kind of change takes up-front investment and that has not yet been accounted for in the budget or capital requests.





INNOVATION & TECHNOLOGY

CEAP PROJECTS

N/A

BOARD ACTION

As an internal service IT does not have a citizen's board.

2019 CAPITAL PROJECTS

While, typically most of IT's projects are capital maintenance projects that involve the replacement and upgrade to existing systems and software, in the next three years, the department expects significant efforts to focus on transforming our technical operations and capacity. This is likely to require investment in both capital and operating dollars. The scope of the IT transformation is still under determination and will be finalized through our current IT assessment at the end of June 2018. On a tactical level, in 2019 and 2020 the following systems will be refreshed and updated:

- **Initiate and replacement of the city's web core technical platform.**
- **Replacement of 75% of the network backbone equipment.**
- **End user hardware replacements of 600+ units.**
- **Refresh and upgrade to Laserfiche, the document management system.**
- **Miscellaneous other server and hardware replacements.**





INNOVATION & TECHNOLOGY

2019 - 2024 CAPITAL IMPROVEMENT PLAN

Innovation & Technology Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 14,357,800	\$ 1,851,200	\$ 3,054,200	\$ 1,717,900	\$ 1,404,900	\$ 6,329,600	\$ -

Capital Maintenance Total	\$ 14,357,800	\$ 1,851,200	\$ 3,054,200	\$ 1,717,900	\$ 1,404,900	\$ 6,329,600	\$ -
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Data Backup and Disaster Recovery	\$ 157,400	\$ -	\$ -	\$ -	\$ 53,300	\$ 104,100	\$ -
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The project reflects the hardware, software and support needed to ensure reliable high speed backup of files, databases and applications stored on the city's enterprise servers and data storage sub-systems. Note that these systems are required not only for disaster preparedness and recovery purposes, but to meet legal records retention requirements.

Database Hardware Replacement	\$ 150,600	\$ -	\$ 19,200	\$ 65,600	\$ 65,800	\$ -	\$ -
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Hardware and related software necessary to provide and support the computing infrastructure that delivers critical database services. Project includes maintenance and end of life equipment replacement.

End User Device Replacement	\$ 3,909,500	\$ 694,000	\$ 704,000	\$ 720,100	\$ 910,400	\$ 881,000	\$ -
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Funding for replacement of PCs and other end user hardware. This routine replacement of end user hardware is performed to avoid equipment failure which would interrupt business operations.

Network Hardware Replacement	\$ 2,751,800	\$ 985,800	\$ 795,800	\$ 289,600	\$ 357,600	\$ 323,000	\$ -
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This is an ongoing project and includes the hardware and related software used to provide and support a reliable and secure high-speed data and voice communications infrastructure to connect City computing devices to internal data repositories and computing services, while supporting connectivity to the Internet and other external data resources and services. Project involves maintenance and end of life equipment replacement. Most elements of the network infrastructure have a useful life of six years. This is the maximum lifecycle recommended by the equipment vendor and industry best practices.

Security Administration	\$ 120,600	\$ 37,600	\$ 35,200	\$ 30,000	\$ 17,800	\$ -	\$ -
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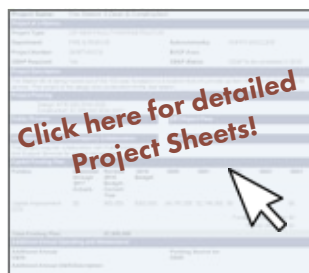
Equipment used to provide and support network devices and software needed to ensure the city's network, server and computing infrastructure are secured against external Cyber-threats such as viruses, malware and hackers in compliance with FBI, CIP (Critical Infrastructure Protection) and PCI (Purchasing Card Industry) security standards. Project includes maintenance and end-of life-equipment replacement. Planning of future enhancements will be included in the upcoming IT Strategic Plan redevelopment process.

Server Hardware Replacement	\$ 567,900	\$ 33,800	\$ -	\$ 512,600	\$ -	\$ 21,500	\$ -
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Hardware and related software necessary to provide and support the computing infrastructure that delivers critical services, including enterprise software applications (e.g. financial, payroll, permitting and licensing, electronic mail, etc.), critical departmental applications (e.g. police and fire records, court case management, recreation registration, etc.) enterprise data storage resources, internal/external web systems, and electronic document management repositories. Project includes maintenance and end of life equipment replacement.

Software Replacement	\$ 6,700,000	\$ 100,000	\$ 1,500,000	\$ 100,000	\$ -	\$ 5,000,000	\$ -
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This project reflects the software and other project expenses needed to ensure timely replacement of the city's software applications. These systems are necessary to conduct day to day city business.





LIBRARY & ARTS



OVERVIEW OF DEPARTMENT MISSION / GOALS

The Library & Arts Department has two distinct divisions: The Boulder Public Library and the Office of Arts and Culture each with its own mission, capital projects, and funding strategies.

BOULDER PUBLIC LIBRARY MISSION

The mission of the Boulder Public Library is to enhance the personal and professional growth of Boulder residents and contribute to the development and sustainability of an engaged community through free access to ideas, information, cultural experiences and educational opportunities.

OFFICE OF ARTS AND CULTURE MISSION

The mission of the Boulder Office of Arts and Culture is to facilitate an alignment in the creative community around our shared vision for culture: Together, we will craft Boulder's social, physical, and cultural environment to include creativity as an

essential ingredient for the well-being, prosperity, and joy of everyone in the community.

CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

Boulder Public Library Master Plan

The Library is currently undergoing a Master Plan update with expected completion in the third quarter of 2018. The master plan will guide library services and spaces and it will serve as a basis to prioritize future capital planning efforts. Building a full-service North Boulder Branch Library has been a community goal since the mid-1990s. It was identified as a vision plan goal in the 2007 Library Master Plan and is a high-priority project in the upcoming 2018 Boulder Public Library Master Plan. The upcoming plan also identifies renovation of four public restroom facilities in the Main Library as a high-priority project.





LIBRARY & ARTS

FUNDING OVERVIEW

The Boulder Public Library is funded through a combination of the **General Fund** and **Library Fund** support. The General Fund provides approximately 78% of the support. The Library receives dedicated Capital Facility Impact Fees that can be used to support capital expansion of library facilities related to growth. Beyond that, there is no dedicated funding source for major capital projects for the Library. Major maintenance and capital maintenance needs are addressed on a case-by-case basis in conjunction with the Facilities & Asset Management (FAM) Division of Public Works and are typically funded either with General Fund dollars or with accumulated Library Fund balance. In total, capital funding for the Library is sourced through the following:

- An increase in sales and use tax;
- An increase in property tax mill levy;
- Bond funding; and/or
- Use of existing one-time library reserves.

The Office of Arts and Culture is funded by the **General Fund**, with a portion of funding for the public art program derived from the **Community, Culture, and Safety Tax**.

Office of Arts and Culture Public Art Program

The Office of Arts and Culture public art program has a substantive capital component and is guided by Community Cultural Plan, the Public Art Policy, and Public Art Implementation Plan. The 2019 deployment of \$200,000 in funding is dedicated to a series of public art projects throughout the city

is underway, generated through the pay-as-you-go Community, Culture & Safety Tax.

RECENT ACCOMPLISHMENTS

The following temporary public art projects were completed in 2018:

- Spires by Dispersion | Civic Area | \$36,200
- Camera Obscura and Western Landscape by Ethan Jackson | Civic Area | \$20,000
- Tree Harps by Katie Shlon | Civic Area | \$10,000

The following permanent public art projects ran through the public art selection process in 2017-2018:

- 55 Degrees by Adam Kuby | Civic Area Signature Public Art | \$325,000 (anticipated completion 2019)
- Caustic Patterns by Michelle Sparks | Boulder Creek Path Underpass at Arapahoe Ave. and 13th St | \$42,000 (anticipated completion Fall 2019)
- NoBo by Sharon Dowell | North Broadway/ North Boulder | \$175,000 (anticipated completion 2020)

*This is a partial list of public art projects underway

In addition to the public art projects, above, there are two additional projects for underpasses at 30th and Colorado and Foothills and Colorado, captured in the Transportation Division. These projects are considered "urban design", and therefore have design, budget, and coordination integrated into their parent projects.





LIBRARY & ARTS

OPERATING AND MAINTENANCE IMPACTS

In 2021, the north Boulder Branch Library will require approximately, \$668,000 in personnel (public desk and makerspace staff) and operating funds for library materials, security and janitorial service, etc. This is in addition to the current annual personnel allocation for the NoBo Corner Library, as those staff members would be reassigned to the new branch. Ongoing building maintenance and utilities costs which are managed by FAM, are currently estimated at \$110,000, annually. Total estimated ongoing cost is \$778,000.

Renovation of the Main Library restrooms is expected to have no appreciable impacts to operating and maintenance costs.

In 2018, The Office of Arts and Culture received \$30,000 of dedicated funding for maintenance of the public art assets, generated through the General Fund. This was a one-time allocation with an anticipated five-year commitment. Funds are committed to the maintenance needs of the existing collection of urban design and public art projects.

UNFUNDED PROJECTS AND EMERGING NEEDS

The upcoming 2018 Boulder Library Master Plan identifies unfunded projects and emerging needs for 2021 and later, including:

Opening a Gunbarrel Corner Library

- Similar to the service model of the NoBo Corner Library, BPL would seek a partnership with a developer or other agency to rent space for a small branch library that is conveniently located near the business center in Gunbarrel.

2019 CAPITAL PROJECTS

- **North Boulder Library:** design and construction through 2021
- **Main Library Public Restroom Renovation**
- **Public Art Project:** University Hill
- **Public Art Project:** Art in Garages Program
- **Public Art Project:** North Boulder Branch Library
- **Public Art Project:** Scott Carpenter Park

Tenant finishes for the project would be eligible for use of Development Excise Tax or Impact Fees collected for the library. A preliminary estimate for the ongoing O&M required is about \$350,000.

Renovation of the Main Library's north building to meet programmatic master plan goals including: upgrading and/or reconfiguring the Canyon Theater, expanding the BLDG 61 makerspace, and providing space for additional community partners.

- BPL is requesting funding from old Library Fund reserves in 2019 to conduct a renovation feasibility study for the Main Library's north building. The building currently sits in the high-hazard flood zone and an assessment is needed to determine the scope and estimated cost of allowable renovations to determine if it is possible to meet the above programmatic goals in the future. Any allowable improvements





LIBRARY & ARTS



would include upgrading the facility to meet current building code and flood regulations. Although replacement of flooring and paint was completed in the north building during the 2014 Main Library renovation, more extensive renovation and reconfiguration were not within the scope of that project.

Carnegie Library Restoration.

- To support its role as the conservator of Boulder's history, creating a Carnegie Library program plan to identify major building system needs and the required funding has been a master plan goal since 2007. A few Carnegie restoration projects previously identified by FAM are yet to be completed and are part of the unfunded building maintenance backlog. Partial funding for any necessary restoration identified in the program plan could come from old Library Fund reserves. Some of the restoration work may be eligible for grant funding or could be funded through donations.



The city is committed to the commissioning a diversity of public artworks that range in duration and media and material, from a breadth of artists. This will be accomplished through a fund mix that financially supports the flexibility needed to reach commissioning goals. Current funding includes a percent for art dedicated from capital parent projects – new capital or capital enhancement projects that qualify for public art allocation – and Community, Culture & Safety Tax. Collectively, these two fund sources are estimated to reach about half of the annual recommended fund mix.



A strategy for funding and maintaining assets acquired through the commissioning of public art will need to be addressed as the collection grows.





LIBRARY & ARTS

CEAP PROJECTS

N/A

BOARD ACTION

The Library will seek the Library Commission's advice on overall priority for new capital projects. The commission's favorable recommendation for capital project funding from the Library Fund (required by the city charter) and the old Library Fund (not required) will be sought.

All public art projects receive review and ultimately approval by the Boulder Arts Commission (Arts Commission) before advancing the City Manager for approval. Additionally, the Arts Commission reviews and ultimately approves Public Art Implementation Plan, which serves as the public art workplan.

2019 - 2024 CAPITAL IMPROVEMENT PLAN

Library & Arts Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 6,750,000	\$ 1,021,176	\$ 4,552,941	\$ 1,175,882	\$ -	\$ -	\$ -
Capital Enhancement Total	\$ 400,000	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -
CCSV2 Public Art Projects	\$ 400,000	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -

A series of capital projects which includes selection of an artist followed by design, fabrication, and construction of a work of public art. Often, though not necessarily, the public art projects are components of a "parent project": a capital project captured in another division which shares a site, infrastructure, and/or budget with the public art. The projects underway at the beginning of 2019 will be Adam Kuby (Civic Area Signature Public Art), Michelle Sparks (Arapahoe Underpass), and Sharon Dowell (North Broadway). The projects to begin in 2019 include University Hill, North Branch Library, and Scott Carpenter Park.

New Facility/Infrastructure Total	\$ 6,350,000	\$ 821,176	\$ 4,352,941	\$ 1,175,882	\$ -	\$ -	\$ -
North Boulder Branch Library - CCS	\$ 1,700,000	\$ -	\$ 1,700,000	\$ -	\$ -	\$ -	\$ -

Design and construction of a north Boulder branch library to expand library services in the area. Funded by the CCS tax, DET and impact fees collected for the library, and possibly Library FR&R and old Library Fund reserves for contingency and unanticipated project additions. One of the four main goals of the project is for the library to be a showcase facility for meeting Boulder's Climate Commitment. In 2021, the North Boulder Branch Library will require approximately \$668,000 in personnel (public desk and makerspace staff) and operating funds for library materials, security and janitorial service, etc. This is in addition to the current annual personnel allocation for the NoBo Corner Library, as those staff members would be reassigned to the new branch. Ongoing building maintenance and utilities costs which are managed by FAM, are currently estimated at \$110,000, annually. Total estimated ongoing cost is \$778,000.

North Boulder Branch Library - CCS	\$ 4,650,000	\$ 821,176	\$ 2,652,941	\$ 1,175,882	\$ -	\$ -	\$ -
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Design and construction of a north Boulder branch library to expand library services in the area. Funded by the CCS tax, DET and impact fees collected for the library, and possibly Library FR&R and old Library Fund reserves for contingency and unanticipated project additions. One of the four main goals of the project is for the library to be a showcase facility for meeting Boulder's Climate Commitment. In 2021, the North Boulder Branch Library will require approximately \$668,000 in personnel (public desk and makerspace staff) and operating funds for library materials, security and janitorial service, etc. This is in addition to the current annual personnel allocation for the NoBo Corner Library, as those staff members would be reassigned to the new branch. Ongoing building maintenance and utilities costs which are managed by FAM, are currently estimated at \$110,000, annually. Total estimated ongoing cost is \$778,000.



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OPEN SPACE & MOUNTAIN PARKS



OVERVIEW OF DEPARTMENT MISSIONS / GOALS

The City of Boulder's Open Space & Mountain Parks Department (OSMP) preserves and protects the natural environment and land resources that characterize Boulder. We foster appreciation and use that sustain the natural values of the land for current and future generations. In 1986, Boulder residents approved a charter that requires OSMP to acquire, maintain, preserve, retain and use open space land for the following purposes:

- Preservation or restoration of natural areas characterized by or including terrain, geologic formations, flora, or fauna that are unusual, spectacular, historically important, scientifically valuable, or unique, or that represent outstanding or rare examples of native species
- Preservation of water resources in their natural or traditional state, scenic areas or vistas, wildlife habitats, or fragile ecosystems
- Preservation of land for passive recreational use, such as hiking, photography or nature studies, and, if specifically designated, bicycling, horseback riding or fishing
- Preservation of agricultural uses and land suitable for agricultural production
- Utilization of land for shaping the development of the city, limiting urban sprawl, and disciplining growth
- Utilization of non-urban land for spatial definition of urban areas
- Utilization of land to prevent encroachment on floodplains
- Preservation of land for its aesthetic or passive recreational value and its contribution to the quality of life of the community

Since 2015, Open Space & Mountain Parks has focused on a reorganization of the work force and alignment of internal operations including





OPEN SPACE & MOUNTAIN PARKS

FUNDING OVERVIEW

Open Space & Mountain Parks' CIP projects are funded from two sources, the Open Space Fund and the Lottery Fund.

Open Space Fund: The Open Space Fund accounts for the acquisition and maintenance of land, with financing provided by sales taxes and the issuance of long-term bonds and notes payable. Approximately 88 percent of Open Space Fund revenue derives from dedicated sales and use tax collections. There are three sales taxes that support the Open Space Fund:

- 0.40 percent sales tax which has no sunset;
- 0.33 percent sales tax which will be reduced to 0.22 percent on January 1, 2019, then reduced again Jan. 1, 2035 to .10 percent and exist in perpetuity.
- 0.15 percent sales tax which will be repurposed for Transportation uses as of January 1, 2020, repurposed again for general city purposes as of January 1, 2030, and expires December 31, 2039.

In 2014 the department issued \$10 million of its approved \$33 million in bonds to support the purchase of land.

Lottery Fund: The Lottery Fund derives its revenue from the Colorado Conservation Trust Fund. Lottery Funds can be used for acquisition, development and maintenance of new conservation sites and capital improvements and maintenance of public sites. Annual appropriation is estimated at \$355,300 with adjustments made based on revenues of the Conservation Trust Fund.

identification of process improvements and business efficiencies to prepare for a changing economic forecast. OSMP leadership has used the charter as a guide to identify CIP project priorities that fit within the Sustainability + Resilience Framework. The top priorities for 2019 include working to implement the priorities of several OSMP management plans and collaborating with regional partners. The 2019-2024 CIP represents a continued shift towards system stewardship and taking care of existing infrastructure and habitat preservation/restoration while gradually slowing funding to support new acquisitions. In addition, OSMP will complete a Master Plan which will inform future budget cycles.

CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

The 2019 Open Space & Mountain Parks Department capital budget includes projects that are a part of the department's core mission including ongoing strategic property acquisitions; capital maintenance of trailheads and trails; agricultural lands management; capital ecosystem maintenance and restoration; and strategic and resource planning. After three years of significant asset assessment including facilities and trails condition, OSMP is increasing its stewardship investment after completing FEMA reimbursable flood recovery projects that have been the focus of the OSMP CIP since 2013. The department's 2019 capital budget will align with the following departmental work program priorities for 2019:





OPEN SPACE & MOUNTAIN PARKS



Complete Open Space & Mountain Parks Master Plan

Continue developing the plan with anticipated completion in 2019. The Plan will establish policy guidance, goals, objectives, priorities and measures of success across services and programs, and addresses overarching issues such as carrying capacity, night-time and temporal use and climate change mitigation and adaptation (From a budget perspective, the Master Plan also will generate three financial plans (fiscally constrained, action and vision levels of investment));

Continue Water and Floodplain Management

Complete work on non-FEMA flood recovery projects and administrative functions related to FEMA reimbursable projects (includes County coordination);

Preserve and Restore Natural Resources

Implement top natural resource priorities of Grassland, Forestry, and Trail Study Area plans through the formation of cross-departmental

implementation, integrated site planning and design review teams; invest in funded research topics that support decision-making; continue to leverage volunteers to monitor important species;

Preserve and Enhance Agricultural Resources

Implement top priorities of the Agricultural Management Plan, including work with tenants and lessees to accomplish goals; collaborate with partners including the Boulder Open Space Conservancy to consider development of an Agricultural Center;

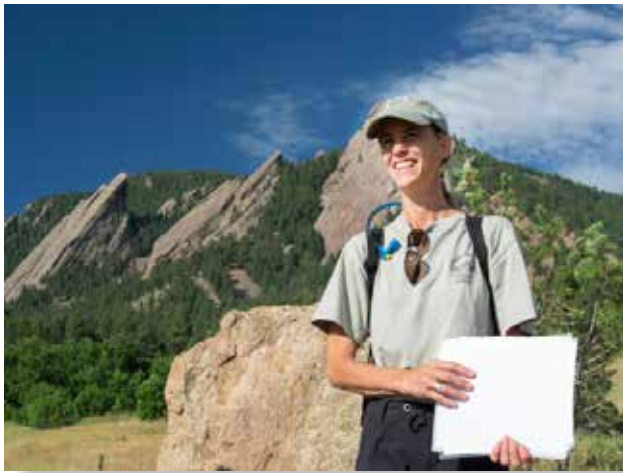
Facilitate Visitor Enjoyment

Continue community engagement and staff presence in the system, continue to implement the Community Ranger model; focus on community and department relationships and interdepartmental coordination. Follow through on initiatives such as recycling/dog waste composting, and regular composting, at trailheads and monitoring and reporting results on the Voice and Sight Tag Program;





OPEN SPACE & MOUNTAIN PARKS



Maintain Facilities and Amenities

Utilize data from facilities and trails condition assessments to reduce facility deficiencies and maintenance backlogs; ensure staff has an optimal, efficient working environment and appropriate facilities and equipment by developing a long-term campus vision. Campus relocation may include acquisition of land, construction of a new facility and/or major renovation of an existing facility depending on site opportunities with preference for redeveloping the Cherryvale location;



Connect People with Nature

Offer diverse and engaging opportunities for passive recreation that are based in outreach strategies and priorities; begin to assess interpretive displays for consistent messaging across the system; participate in citywide partnership efforts to expand programs and engagement opportunities;



Engage in Regional Collaboration

Partner with other agencies to leverage OSMP's interests through strategic property acquisition, coordination of joint programs and projects, and other avenues as needed (e.g., research grants, roundtables, and regional trail efforts including Eldorado to Walker Ranch, Rocky Mountain Greenway and the Boulder Creek Path extension);

Focus on Continuous Improvement within the OSMP Department

Continue to assess and develop best practices related to OSMP's scientific approach, data stewardship, planning and design, work plan and budget management, staff training and development, performance management, and communication and coordination internally and externally.





OPEN SPACE & MOUNTAIN PARKS

As staff plans for 2019, OSMP recognizes the need to remain flexible considering the community and City Council's interests, as well as a department that is experiencing change. The 2019 CIP will support business needs while understanding that additional adjustments will be necessary over the coming years as the Master Plan is completed.

RECENT ACCOMPLISHMENTS

- Agricultural Resource Management Plan – Approved in 2017 with implementation beginning in 2018
- Several FEMA reimbursable flood recovery projects completed
- Art Inspired by the Land – Annual programming and exhibition
- Boulder Creek Restoration Project – Non-FEMA flood recovery and enhancements
- Boulder Valley Farm Acquisition
- Chautauqua Meadow Trail flood repairs
- Community Ranger Program
- Interim office move – Office Space studies since 2015, turning attention to Long-Term Campus Vision in 2018 and beyond
- North Sky Trail Easement Acquisition
- Open Space 50th Anniversary Celebration
- Master Plan System Overview Report and Resident Survey and Visitation Data
- Repairs to Sawhill Fishing Pier
- Sunshine Fire Forest Management creek corridor.

2019 CAPITAL PROJECTS

In 2019, OSMP will continue to invest in capital projects that support department charter purposes. These projects include:

- **Agriculture and Water Facilities**
- **Cultural Resource/Facility Restoration**
- **Ecological System Restoration**
- **Facilities Maintenance**
- **Farm Site Improvements**
- **Integrated Site Planning**
- **Major Infrastructure Maintenance**
- **Mineral Rights Acquisition**
- **New Property Stabilization**
- **OSMP Long-Term Campus Vision**
- **OSMP Real Estate Acquisition**
- **Regional Collaboration**
- **Water Rights Acquisition**





OPEN SPACE & MOUNTAIN PARKS

OPERATING AND MAINTENANCE IMPACTS

In 2019, OSMP will continue to shift to increased system stewardship and taking care of what we have. The department will focus on trail maintenance backlogs that occurred while recovering from the 2013 flood. As a result, most CIP funding will support reducing deferred maintenance and we expect some savings on operations and maintenance because of these efforts. For example, ecological restoration projects will remove sediment to allow fish passages while reducing maintenance to head gates. Increases to operations and maintenance will occur where new infrastructure is added, for example around improved agricultural irrigation. OSMP is confident that any added O&M can be supported by existing operating budget.

UNFUNDED PROJECTS AND EMERGING NEEDS

Since 2015 OSMP has studied its work space needs and this year moved a large portion of its operations to a temporary leased facility while addressing basic building deficiencies focused on health and safety in its current buildings. Now that staff has moved to the interim location, OSMP will shift to developing its future campus vision, with preference for redeveloping the Cherryvale location. OSMP expects to invest in department office/work space over the next 5-7 years. Assuming redevelopment of a current site, project cost for the long-term campus is estimated at \$15 million and considered an unfunded need. OSMP is analyzing funding scenarios to support the project that will likely include debt issuance for some or all of the project.

To note an emerging issue related to funding, Open

Space & Mountain Parks derives approximately 88% of its revenue from sales and use tax. Over the past year, the City of Boulder has seen a trend of flattening revenues from retail sales tax with current economic forecasts projecting this trend of zero-growth to continue. In addition to a zero-growth sales tax projection, OSMP will experience sunsets of sales tax increments totaling 26% by January 1, 2020. As a result, it is critical to the financial health of OSMP to strategically plan how to conservatively set budgets in a period of decreasing revenues.

Based on strategies implemented in previous and current budget cycles, OSMP feels prepared to develop a 2019 budget that reflects financial realities and upholds our commitment to stewarding the land system. OSMP has increased the Open Space Fund contingency reserves to 20% of operating plus debt, maintained strong fund balances, repaid debt in advance of expiring tax increments, de-obligated capital carryover, and improved work planning processes to better understand capital needs. After 2022, the department anticipates a return to annual spending that is aligned with projected annual revenue. While the department will continue to develop fiscally responsible budgets, the sales tax sunset and repurposing coincides with:

- Addressing deferred maintenance that developed while completing flood recovery;
- Shifting to increased system stewardship as reflected in capital budgets; and
- Development of a new OSMP campus.

Nonetheless, OSMP will be able to meet its business needs within existing funding structures, including the potential to issue bonds and afford associated debt if needed. OSMP will be actively monitoring





OPEN SPACE & MOUNTAIN PARKS

and adapting to revenue projections over the next several years.

Climate Commitment: OSMP addresses climate commitments through the Master Plan (when completed), Forest Ecosystem Management Plan and the Agriculture Resource Management Plan, as well as capital project and operational budgets. OSMP has collaborated with multiple partners to honor the City’s climate commitments through projects such as carbon farming/sequestration, forest thinning, building enhancements, fleet management, studying the impact of climate change and forests and grasslands, water sharing feasibility analysis, and participating in interdepartmental climate change workshops and planning efforts (e.g., the Climate Commitment, the Resilience Strategy, and the Boulder Valley Comprehensive Plan). Partners include but are not limited to; Boulder County Sustainability Office, the Colorado Water Trust, Boulder County Parks and Open Space, Colorado State University, and the City of Boulder Planning & Sustainability.

CEAP PROJECTS

Four Mile Creek: The Foothills Trail crossing of Four Mile Creek near the Foothills Trailhead changed drastically during the 2013 Flood. This project aims to install an ADA accessible crossing and to rehab the creek bed up and downstream from the bridge location. (Need to confirm with CEAP Review team and update description)

BOARD ACTION

The Open Space Board of Trustees unanimously recommended the 2019-2024 CIP on June 13, 2018 after previous review at the April 11 and May 9 business meetings.

2019 - 2024 CAPITAL IMPROVEMENT PLAN

Open Space & Mountain Parks Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 22,235,300	\$ 5,335,300	\$ 3,880,000	\$ 3,880,000	\$ 3,380,000	\$ 2,880,000	\$ 2,880,000
Capital Enhancement Total	\$ 1,080,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000
OSMP Long Term Campus Vision	\$ 600,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000

In 2015, OSMP conducted a work space assessment to identify short-, medium-, and long-term departmental space needs. In 2016, the assessment determined that there is a need to pursue a new OSMP campus in the interim to meet our medium-term vision. In 2017, OSMP selected 2520 55th St as the OSMP interim site, "The Hub." Remodeling of The Hub started in early 2018 with a move-in date set for July 2018. In 2019, the department will shift focus to the long-term campus vision. OSMP will analyze the development of a new campus over the next five years to meet identified departmental space needs for staff and operations. OSMP's preference for the new campus is to redevelop and renovate the Cherryvale location.

Regional Collaboration	\$ 480,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000
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Regional collaboration is a priority for the City of Boulder and OSMP and continues to be of community interest. Regional trails in particular are popular community initiatives as they contribute to wellness, fitness, support physical and mental health, provide connections to the natural world, and improve the quality of life in our community. Based on council direction, OSMP has identified regional collaboration as a department priority, understanding connection opportunities for system visitors while promoting interagency collaboration. Several regional trail connections are being pursued and implemented as directed by existing plans that have been accepted by council. OSMP worked with regional partners to begin a regional trails assessment in 2018 supporting our continuing collaborations on these and future projects. This assessment evaluated strategies for OSMP to better understand and improve how we support regional and local trail connections.





OPEN SPACE & MOUNTAIN PARKS

Open Space & Mountain Parks Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Maintenance Total	\$ 10,275,300	\$ 3,125,300	\$ 1,670,000	\$ 1,670,000	\$ 1,270,000	\$ 1,270,000	\$ 1,270,000
Agriculture and Water Facilities	\$ 960,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 110,000	\$ 110,000	\$ 110,000

One of the city charter purposes is to preserve agricultural land and provide for its agricultural use. This is accomplished through an agricultural leasing program that includes an obligation to provide land and water to local farmers and ranchers. Agricultural properties have fencing, irrigation infrastructure, and other structures necessary to support agricultural operations that must be maintained. Aging, intermittently used, and damaged infrastructure needs repair to adequately irrigate certain properties. We look for opportunities to install measurement and control instrumentation to become more efficient with water deliveries and understand how much water is being delivered. We will follow recommendations from the Agricultural Resource Management Plan accepted by council in 2017.

Cultural Resource/Facility Restorat	\$ 600,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
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This program supports multiple charter purposes including preservation of agricultural land for agricultural uses, preservation of scenic areas or vistas, and preservation of land for its aesthetic value. OSMP dedicates CIP funding annually to improve the condition of historic structures, including but not limited to barns, houses, sheds, and shelters. Improvements serve many functions, including allowing for functional farms and/or homes for agricultural tenants. Other cultural resource projects preserve iconic structures across the land system for the enjoyment of current and future generations. In 2017, historic structures on the OSMP land system were reviewed during a system-wide facilities assessment and prioritized by staff. Priority projects were programmed across the 6-year planning horizon. In 2019, this CIP will also support OSMP's scenic resource inventory efforts.

Ecological System Maintenance/Restr	\$ 1,630,000	\$ 430,000	\$ 300,000	\$ 300,000	\$ 200,000	\$ 200,000	\$ 200,000
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This program supports multiple charter purposes including preservation of natural areas, preservation of water resources in their natural or traditional state, scenic areas or vistas, wildlife habitats, fragile ecosystems, and utilization of land to prevent development encroachment on floodplains. These ongoing capital dollars will support ecological system maintenance and restoration as directed by the Grassland Ecosystem Management Plan, the Forest Ecosystem Management Plan, the Visitor Master Plan, and Trail Study Area Plans. Projects additionally support the goals of the Boulder Creek Master Plan approved in 2017. This program will support some non-FEMA flood recovery, particularly where the 2013 flood destabilized South Boulder Creek resulting in high sediment loading affecting riparian areas including Preble's meadow jumping mouse habitat and fish passage.

Facilities Maintenance	\$ 2,030,000	\$ 530,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
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This program supports the facilities maintenance needed to fulfill multiple OSMP charter purposes. In 2017, OSMP began a facilities assessment to inventory all OSMP structures, determine their condition and what is needed to maintain them including the priority of each facility along with estimated maintenance and repair costs both immediate and long term. This information was delivered to OSMP in 2017 as the Facilities Assessment and is used to prioritize facility maintenance over the 6-year planning horizon.

Farm Site Improvements	\$ 360,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000
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This program supports the city charter purpose of agricultural land protection and use. We primarily accomplish this through an agricultural leasing program that includes an obligation to provide land and water to local farmers and ranchers. This program will improve farm sites to include infrastructure necessary for local food producing operations. The Agricultural Management Plan accepted by council in 2017 identified sites to consider for these types of uses and infrastructure improvements.

Four Mile Creek	\$ 355,300	\$ 355,300	\$ -	\$ -	\$ -	\$ -	\$ -
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The Foothills Trail crossing of Four Mile Creek near the Foothills Trailhead changed drastically during the 2013 Flood. This non-FEMA flood recovery project aims to install a crossing and to rehab the creek bed up and downstream from the bridge location. Stream restoration is crucial to provide sediment transport through the area, and to re-create the habitat that was lost during the flood. It will be supported by Lottery funding.

Major Infrastructure Maintenance	\$ 2,890,000	\$ 990,000	\$ 500,000	\$ 500,000	\$ 300,000	\$ 300,000	\$ 300,000
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The OSMP charter requires that we preserve land for passive recreational use. In 2016, OSMP initiated a Trails Condition Assessment to assess the current state of the entire designated trail system and to signal future investment in trails stewardship. The Trails Condition Assessment was completed in 2017 and will be used to identify department priorities and cost projections to improve trails on the system. Spending in 2018 and beyond will be guided by assessment results, Trail Study Area Plans, and the Open Space Master Plan expected to be completed in 2019.

New Property Stabilization	\$ 1,450,000	\$ 450,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
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The OSMP Charter indicates that land may not be improved after acquisition unless such improvements are necessary to protect or maintain the land or to provide for identified charter purposes. This CIP project includes funds for new property stabilization/immediate improvements on OSMP Real Estate Acquisitions, including immediate property needs for natural resources. In prior years, immediate property stabilization was funded on a case by case basis which resulted in insufficient funding to bring new properties to OSMP standards, including breakdown and/or restoration of structures, fencing, invasive plant eradication, etc. In 2017, OSMP began to set an amount per year dedicated to property stabilization with 2019 being a pivotal year for funding increased stewardship to the system.





OPEN SPACE & MOUNTAIN PARKS

Open Space & Mountain Parks Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Planning Studies Total	\$ 780,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000
Integrated Site Planning	\$ 780,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000

Integrated Site Plans are developed taking into consideration natural, agricultural, recreational, cultural and scenic resources as well as programming for education, patrol, and operations. They are developed at a site scale that enables natural and cultural resource projects as well as recreation activities with supporting infrastructure to be implemented immediately with clear guidance on feasibility, constructability, materials, etc. ISPs sequence projects in an area while ensuring implementation of system plans.

Land Acquisition	\$ 10,100,000	\$ 1,900,000	\$ 1,900,000	\$ 1,900,000	\$ 1,800,000	\$ 1,300,000	\$ 1,300,000
Mineral Rights Acquisition	\$ 600,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000

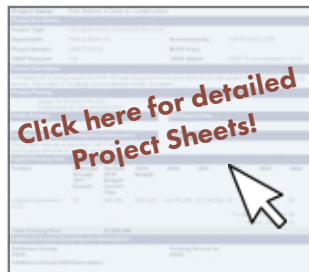
For decades, the City of Boulder has worked to acquire subsurface property interests and mineral rights, including oil and gas, as part of any new open space acquisition or where the opportunity has existed to acquire them separately. These acquisitions have helped to better control oil, gas and mineral development to minimize impacts to natural, recreational, agricultural and cultural resources. This ongoing program provides funding to purchase underlying mineral interests from private property owners as they become available on the real estate market. Many of these interests in minerals, gas, oil and aggregates were severed from the lands before properties were purchased by the city and could cause future management issues. By purchasing the rights to the mineral, the city is purchasing a physical asset. Funds also provide for research, mapping and analyzing potential acquisitions. In addition, should water rights or real property become available to purchase and funds allocated for that purpose are insufficient, mineral rights acquisition funds may be utilized to make up the deficiency.

OSMP Real Estate Acquisition	\$ 8,300,000	\$ 1,600,000	\$ 1,600,000	\$ 1,600,000	\$ 1,500,000	\$ 1,000,000	\$ 1,000,000
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The OSMP Charter requires that we acquire, maintain, preserve and retain open space lands for ecological conservation, agriculture, passive recreation, urban shaping and scenic beauty. As our open space system matures, the land acquisition phase grows closer to completion with an estimated 5,000 acres remaining to complete the vision of a comprehensive open space system. OSMP is focusing on acquisitions that assist the city in connecting and filling in the system, improving stewardship, support trail linkages or habitat connectivity such as along wildlife and riparian corridors. Acquisition is guided by the Open Space and Mountain Parks Acquisition Plan Update as approved by OSBT and City Council in 2013. This ongoing project is the acquisition of additional acres of open space, whether in fee or easement, from private property owners or others. The amount of this CIP project will gradually decrease after 2018 as OSMP increases its investments in stewardship activities and as the amount of identified priority acquisitions decrease. In addition, should water or mineral rights become available to purchase and funds allocated for that purpose are insufficient, Land Acquisition funds may be utilized to make up the deficiency. Acquisitions can be episodic since several dynamics are at play including economic factors, property owner interest, partnership opportunities, agreeable terms of scale, etc.

Water Rights Acquisition	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
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The OSMP Charter requires that we preserve water resources in their natural or traditional state. We primarily accomplish this by protecting and maintaining both natural aquatic systems and riparian habitats as well as the engineered infrastructure of acquired water resources. OSMP owns water rights estimated to be worth between \$60 and \$70 million, using the water rights to support agricultural activities and sustain ecological health. This ongoing project provides funding to purchase additional water from private owners or others for use on Open Space and Mountain Parks for agricultural and environmental purposes. By purchasing the water rights, the city is purchasing a physical asset. Funding will also be used for professional fees, legal and engineering fees, analysis and mapping necessary to manage and protect the water rights portfolio. In addition, should mineral rights or real property become available to purchase and funds allocated for that purpose are insufficient, water rights acquisition funds may be utilized to make up the deficiency.



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PARKS & RECREATION



OVERVIEW OF DEPARTMENT MISSIONS / GOALS

In 2014, City Council adopted the Boulder Parks & Recreation Master Plan and guiding principles that provide a focused mission statement to promote the health and well-being of the entire Boulder community by collaboratively providing high-quality parks, facilities and programs. This plan reflected over two years of public input as to the future of the urban park system and identified six core themes to implement the community vision. They include: enhancing community health and wellness; taking care of what we have; financial sustainability; building community; youth engagement; and organizational readiness. To remain mission focused and community driven, BPR is already planning the next update to the master plan in 2020 as outlined in the current CIP. In addition, the department is continuing to implement an Asset Management Program to understand existing conditions on \$215 million assets and reduce backlog of deferred maintenance to lower

overall facility condition index (FCI) to an industry standard. In 2018 the department continues implementation of the Asset Management Program, completing planned capital projects, planning new projects for construction in 2019 and working with expanded partnership development with agencies like Boulder Valley School District and non-profits such as the PLAY Foundation to secure capital funding for enhancements and new facilities.

FUNDING OVERVIEW

Parks & Recreation has multiple funds that allow implementation of capital projects each year. These funds are described in more detail below and come from a variety of sources to support the department's need to ensure parks and facilities are in good condition and continue to serve the community.

Staff have identified options for reducing spending strategically as a standard practice for this fiscal environment and especially as it applies to the CIP.





PARKS & RECREATION

FUNDING OVERVIEW

.25 Cent Sales Tax Fund: the revenues from this funding source were pledged “to fund Parks & Recreational services, development, renovation and refurbishment, and parkland acquisition for passive and active recreational uses”

Permanent Park and Recreation Fund: consists of a .9 mill levy of assessed valuation of all taxable property in the city. The City Charter requires that the “...Fund shall not be used for any purpose other than the acquisition of park land or the permanent improvement of park and recreation facilities.” (Charter Sec 161)

Lottery Fund: proceeds from the Conservation Trust Fund that is distributed by the State of Colorado. Funding can be used for the acquisition, development and maintenance of new conservation sites and capital improvements for recreational purpose.

Capital Development Fund: citywide development impact fee collections allocated to growth-related Parks & Recreation facility development.

As indicated in the chart for the 6-year CIP, staff have performed careful analysis and projections for all funds that make up the department CIP and adjusted the funding accordingly to remain within funding projections while still maintaining a healthy fund balance for reserves. Over half of the CIP is now funded exclusively out of the Permanent Parks & Recreation fund while the remaining is funded appropriately out of the .25 Cent Sales Tax and Lottery Fund. Staff will continue to monitor and adjust funding as necessary each year during capital planning with new fund projections and revenue information as available.

CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

The department continues to focus primarily on taking care of existing assets that provide core services to the community while partnering as possible to leverage capital funding that align with key themes identified in the BPR master plan including:

- **Community Health and Wellness**
Parks and facilities are being improved with capital maintenance and enhancements to the three recreation centers and many outdoor facilities such as courts, playgrounds and ballfields. The amenities are critical to the department’s core services and outlined in recent plans and studies.
- **Taking Care of Existing Facilities**
Through implementation of the Asset Management Software, improvements to Chautauqua Park, Boulder Reservoir South Shore and Columbia Cemetery will extend the





PARKS & RECREATION



Boulder Reservoir Visitor Services Center

useful life of priority facilities and increase the condition of many assets.

- **Building Community Relationships**
BPR continues to address the Emerald Ash Borer epidemic in Boulder and maintain as much tree canopy as possible. With help from the Tree Trust, developed by the PLAY Boulder Foundation, staff are making progress in fighting the pest and planting replacement trees through capital funding.
- **Youth Activity and Engagement**
Many youth sports facilities and play areas will be enhanced and renovated through the 2019 projects that will continue to allow the department to focus on youth and provide opportunities for children in the community.

RECENT ACCOMPLISHMENTS

- **Scott Carpenter Pool Development**
Planning and design for the demolition of the existing pool and bathhouse facilities that were over 60 years old and beyond their life cycle and replace the facility with a new

ten-lane outdoor pool, bathhouse and family leisure pool area.

- **Boulder Reservoir Visitor Services Center**
Planning and design for the replacement of the existing administration building and bathhouse with the construction of a new restroom facility, administrative functions, concessions area and beach enhancements.
- **Neighborhood and Community Parks**
Completion of three renovations at neighborhood parks throughout Boulder including Arapahoe Ridge, Tantra and Howard Hueston Parks. These parks are now accessible with new irrigation, play features, pathways and site furnishings.
- **Urban Forest Management (EAB Response)**
Continued implementation of the Emerald Ash Borer (EAB) response plan and assist in implementation of the urban forest strategic plan by treating symptomatic trees, removing dead trees and planting over 400 new trees.





PARKS & RECREATION



The Urban Forestry Division directly manages approximately 50,000 trees located in city parks and in street rights-of-way with a total appraised value of over \$110M. Ash trees provide considerable economic, environmental, and socio-economic services to community members. Unfortunately, EAB was discovered in the City of Boulder in 2013. Boulder was the first city in Colorado to identify EAB and is at the forefront of the state's management program. Ash is one of the most abundant tree species in urban areas across Colorado, including 12 percent of Boulder city parks and ROW trees by numbers. Boulder's ash trees contribute approximately 25 percent of the overall canopy cover. The estimated number of public, private, and naturalized ash in Boulder is over 70,000 trees at an estimated value of \$18 million.



- **Civic Area Park Construction**

Completed the total renovation of the urban park in the downtown core of the Civic Area with voter-approved funding that allowed for a new innovative play area, events lawn, Creek path enhancements, 11th street pedestrian spine and restored creek corridor.



OPERATING AND MAINTENANCE IMPACTS

The department prioritizes capital projects based upon maintaining existing assets and decreasing the maintenance backlog of the department's portfolio of parks and facilities. Therefore, most projects included in the department's Capital Improvement Program will not have an impact on maintenance costs due to replacement of aging infrastructure and efficiencies associated with new and improved facilities and systems. However, as





PARKS & RECREATION

the department fulfills commitments relative to long-term planning needs such as the future phases of Valmont City Park, Boulder Junction Park or Violet Neighborhood Park in the future, the department will need to carefully design enhancements in sensitivity to the department's O&M funding and not overburden funds with maintenance of these new facilities. Staff are also carefully planning future facilities and current renovations to include energy efficiency and opportunities for reducing short-term and long-term O&M needs. As an example, irrigation systems are much more efficient now using digital systems, rain sensors and other technology to not over water. Also, building systems include efficient lighting, pumps and filters for pools and sustainable materials.

UNFUNDED PROJECTS AND EMERGING NEEDS

The current budget reflects an economic reality that is not predicted to shift anytime soon, and it is within this reality that the department must plan. With maintenance backlog estimated at over \$16 million on approximately \$215 million in assets, the department faces difficult trade-off decisions about how to manage and operate its facilities and provide its programs. City guidelines regarding capital improvement prioritize the maintenance of current assets over the development of new facilities, and through the Master Planning process, the community has indicated strong support for this concept. Even with the .25 Cent Sales Tax renewal, the department must focus on maintaining and improving all deteriorating assets. Simultaneously the department must respond to the community's shifting values related to new facilities by providing adequate facilities to meet those needs and by making them accessible to the entire community.

2019 CAPITAL PROJECTS

- **Scott Carpenter Pool Redevelopment**
- **Boulder Reservoir Visitor Services Center**
- **Columbia Cemetery Capital Maintenance**
- **Urban Forestry Management**
- **Flatirons Golf Course Enhancements**
- **Chautauqua Park Playground Renovation**
- **Parking Lot Maintenance and Renovation**

In the long-term, additional funding will need to be secured to develop any new major facilities as well as improve service standards for maintenance operations and to fund deferred maintenance. The department's Master Plan includes a list of priority items to complete based on various funding levels. The department's 2016 Capital Investment Strategy identified investments of \$104 million with available funding of only \$64 million over the next ten years. Staff continues to evaluate deferred maintenance needs, including park sites and recreation facility needs and have implemented an Asset Management Plan (AMP) to assist in capital planning and day-to-day operations. The current maintenance and facility improvements backlog, including major repairs and replacements, is significant. The department anticipates that this backlog will continue until funding levels reach appropriate amounts to accommodate life-cycle projections for the department's assets.





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To mitigate the impacts of limited funding, staff is:

- Working collaboratively with Facilities & Asset Management (FAM) to prioritize funding for deferred, major and ongoing facility maintenance
- Deferring low priority improvements and new capital projects that cannot be funded operationally
- Completing projects to achieve energy efficiencies at recreation facilities
- Developing long-term partnerships and non-traditional funding sources to support desired new facilities and enhancements to existing facilities.

Key unfunded projects include:

- Boulder Reservoir South Shore enhancements to accommodate increased use and visitation as well as basic amenities to support the regional destination.
- The Recreation Facility Strategic Plan projected a total of \$4.5 million in deferred maintenance and an additional \$3 million over the next ten years in the three recreation centers.
- Increased capacity and additional facilities for youth and adult sports fields.
- Expansion and enhancement of recreation centers and aquatics facilities that accommodate increased demand for lap swimming, fitness equipment and classroom space that could be expanded.

- Infrastructure associated with future phases of Valmont City Park development including athletic fields and infrastructure investments, and space needs for a potential Park Maintenance Operations relocation.

CEAP PROJECTS

N/A

BOARD ACTION

The Parks & Recreation Board (PRAB) unanimously approved the following two resolutions in support of the 2019-2024 CIP at the June 2018 meeting: a motion to approve the 2019 recommended expenditures from the Permanent Park and Recreation Fund and a motion to approve the recommended 2019– 2024 Parks & Recreation Department Capital Improvement Program (CIP).





PARKS & RECREATION

2019 - 2024 CAPITAL IMPROVEMENT PLAN

Parks & Recreation Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 28,512,333	\$ 7,099,333	\$ 4,296,000	\$ 4,645,000	\$ 4,020,000	\$ 4,670,000	\$ 3,782,000

Capital Enhancement Total	\$ 13,830,333	\$ 2,921,333	\$ 852,000	\$ 3,103,000	\$ 2,508,000	\$ 3,018,000	\$ 1,428,000
Aquatic Facility Enhancements	\$ 2,760,000	\$ -	\$ 150,000	\$ 2,100,000	\$ -	\$ 510,000	\$ -

Based on recommendations of the 2015 Boulder Aquatics Feasibility Plan, this project provides implementation of priority indoor and outdoor pool enhancements for Boulder's aquatics programs. In 2018, all of the indoor hot tubs will be repaired to meet lifecycle preventative maintenance. The East Boulder Community Center pools will be improved in partnership with Facilities and Asset Management funding necessary repairs in 2020. In 2022, improvements will be made to the outdoor Spruce Pool and the indoor South Boulder Recreation Center pool to provide water play features for children and youth.

Capital Infrastructure Enhancements	\$ 2,735,000	\$ -	\$ -	\$ 575,000	\$ 80,000	\$ 1,080,000	\$ 1,000,000
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This project will provide capital funding to implement enhancements at parks and facilities throughout the system. Currently undeveloped park sites such as Violet Park in north Boulder and Eaton Park in Gunbarrel have planned amenities that need to be implemented to meet service levels of surrounding neighborhoods. Additionally, this project will provide implementation of planned amenities at developed park sites that haven't been constructed such as restrooms, ballfields, additional sport courts and play areas. The Recreation Facility Needs Assessment completed in 2019 will also outline future priorities that will be funded through this project that will enhance the existing recreation facilities.

General Park Improvements	\$ 2,568,000	\$ 428,000	\$ 428,000	\$ 428,000	\$ 428,000	\$ 428,000	\$ 428,000
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Boulder's park system is foundational to the mission of the Parks and Recreation Department. Upon completion of the department's master plan in 2014, the department committed to ongoing park system renovations/repairs based on priority needs and asset management for all outdoor facilities. This combines individual funding for playgrounds, parking lots, shelters, courts and ADA. The specific system that will be renovated will be decided on an annual basis through an asset management program and communicated to the public. Projects are necessary to comply with goals and commitments identified in the department's master plan. The department evaluates and prioritizes needs based on criteria including safety and code compliance, age of the equipment, location in the city, and opportunities for efficiencies, collaboration or partnerships with other departments or the surrounding neighborhood.

Operations Facilities Capital Enhac	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -
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This project will provide funding to implement key recommendations of the operations facility assessment to improve existing facilities as well as increasing facilities for space needs related to production areas, material storage, office space and equipment staging.

Scott Carpenter Pool CCS	\$ 2,393,333	\$ 2,393,333	\$ -	\$ -	\$ -	\$ -	\$ -
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Based on the outcomes of the Aquatics Feasibility Plan, the replacement of Scott Carpenter Pool is necessary based on the lifecycle analysis indicating many deficiencies that need to be addressed. This also allows the opportunity to address the increased demand for lap swimming in the community. This project will replace and enhance the Scott Carpenter pool and associated amenities. The project will also provide leisure aquatic features for families including a lazy river, slides and a zero depth entry pool. The existing bathhouse will be renovated and expanded to support the new amenities and allow for a variety of programs. The pool will be expanded to a 50-meter 10 lane pool (expanded from 6 lanes due to growth in demand and increase in use observed in the recent planning study).

Valmont City Park - Phase 2	\$ 2,374,000	\$ 100,000	\$ 274,000	\$ -	\$ 2,000,000	\$ -	\$ -
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This project provides for the development of the next major phase of Valmont City Park, primarily south of Valmont Road. The Concept Plan for the park was updated in 2015 with community support and outlining all the major amenities and phases to be built in the future. The next phase will likely include an adventure playground, small water feature for children, community garden, skateboard elements and shelter pavilions. Additional parking and opportunities for enhancement to the existing disc golf course will also be explored as part of Phase 2. Final plans will be completed in 2019 to determine amenities for development as well as available funding. This project also allows for increased park service to the surrounding areas of east Boulder as well as the entire Boulder community.





PARKS & RECREATION

Parks & Recreation Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Maintenance Total	\$ 14,002,000	\$ 3,778,000	\$ 3,304,000	\$ 1,402,000	\$ 1,512,000	\$ 1,652,000	\$ 2,354,000
Athletic Field Improvements	\$ 260,000	\$ -	\$ -	\$ 130,000	\$ -	\$ 130,000	\$ -

As recommended in the department's master plan and the subsequent Athletic Field Study, staff will improve existing athletic fields and sports complexes through annual capital maintenance and renovations. Most of the improvements relate to irrigation and turf renovation, replacement of sports field amenities and improving fields. The department conducted feasibility studies and intends to design and construct priority field improvements at locations determined through the athletic field study. Specific park sites could include Stazio Complex, Foothills Community Park, Pleasantview Sports Complex, East Boulder Community Park or Harlow Platts Park. This project allows the department to focus on youth engagement and activity as indicated in the department's master plan and Athletic Field Study by providing appropriate facilities and opportunities for youth sports. Additionally, this project will provide efficiency and improvement in maintenance and operations in order to allow the department more flexibility in maintenance of athletic fields throughout the community.

Boulder Reservoir South Shore	\$ 1,100,000	\$ 1,100,000	\$ -	\$ -	\$ -	\$ -	\$ -
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Implementing the 2012 Master Plan and recent facility assessments, this project will continue the implementation of key improvements to the south shore recreation area and redevelopment of the visitor services center to provide restrooms, administrative offices, concessions area and various visitor amenities to the beach area. Funding is planned through 2023 to continue key enhancement priorities that will be determined through a site management plan that is currently underway and will be complete in 2019. Potential projects include trail connections, pavilions, docks, facility upgrades and parking lot renovations.

Columbia Cemetery Capital Maintenan	\$ 242,000	\$ 106,000	\$ 32,000	\$ -	\$ 40,000	\$ 32,000	\$ 32,000
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The cemetery is a designated landmark and requires ongoing maintenance to meet the preservation requirements associated with all the infrastructure ranging from headstones, markers, ornamental fencing and grounds maintenance. This project will provide necessary funding to complete projects as well as local match for leveraging state grant funds.

Flatiron Golf Course Repairs	\$ 3,060,000	\$ 260,000	\$ 2,300,000	\$ -	\$ -	\$ -	\$ 500,000
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The Flatirons Golf Course is the only public course in Boulder and provides a highly desired recreation amenity while also contributing to funding sources through revenue generation. The golf course has many planned enhancements to ensure playability and provide necessary visitor amenities. This project will provide dredging of existing irrigation ponds within the course in 2019 and 2024 and design and construction of a new pro shop, clubhouse and staff office to replace the former events center that was demolished as a result of the 2013 flood.

Neighborhood & Com Park Cap Maint	\$ 472,000	\$ -	\$ -	\$ -	\$ -	\$ 472,000	\$ -
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This annual funding provides the annual asset maintenance throughout the system as well as a complete renovation of one neighborhood park annually to meet the goals outlined within the BPR Master Plan and Capital Investment Strategy. The renovations typically include playground replacement, irrigation renovation, forestry maintenance, ADA compliance and shelter repairs.

Neighborhood & Com Park Cap Maint	\$ 2,360,000	\$ 472,000	\$ 472,000	\$ 472,000	\$ 472,000	\$ -	\$ 472,000
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This annual funding provides the annual asset maintenance throughout the system as well as a complete renovation of one neighborhood park annually to meet the goals outlined within the BPR Master Plan and Capital Investment Strategy. The renovations typically include playground replacement, irrigation renovation, forestry maintenance, ADA compliance and shelter repairs.

Parking Lot Capital Maintenance	\$ 1,808,000	\$ 840,000	\$ -	\$ 300,000	\$ -	\$ 318,000	\$ 350,000
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BPR manages approximately 20 different parking lots across the system with a current replacement value of \$5.5M. Current backlog of maintenance is estimated at \$2M which increases annually due to the deterioration of asphalt in poor condition. This project provides critical funding to renovate and renew existing parking lots to ensure safety of visitors and access to a variety of parks and recreation facilities. Individual parking lot repairs are prioritized through the department's asset management system and identified for construction efficiencies based on locations. Each parking lot repair and renovation will be scoped and opportunities for innovation, efficiency and coordination with other departments will be explored including electric vehicle charging stations as applicable.

Play Court Capital Maintenance	\$ 300,000	\$ -	\$ 100,000	\$ -	\$ -	\$ 200,000	\$ -
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BPR owns and manages a variety of play courts ranging from basketball, tennis, platform tennis and handball. The department asset management system outlines which courts are in need of repairs and the department uses this funding to provide capital maintenance each year to the highest priority courts including crack filling, striping, painting and replacement of hardware and infrastructure associated with the courts.

Recreation Facility Repairs	\$ 1,500,000	\$ 500,000	\$ -	\$ -	\$ 500,000	\$ -	\$ 500,000
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The department's master plan indicates several key themes that relate to health and wellness, youth activity, community engagement and asset management. To continue supporting these key themes, the department will be providing repairs, renovations and upgrades to recreation centers. In 2016, the department completed a strategic plan for all recreation centers that illustrates implementation priority for critical projects. Based upon the outcomes and strategies of the Recreation Facility Strategic Plan, this project will fund the initial implementation projects outlined within the plan. This project is combined with funding from the Facilities and Asset Management (FAM) Division of Public Works that partners in the management of the facilities.





PARKS & RECREATION

Parks & Recreation Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Urban Forest Management	\$ 2,900,000	\$ 500,000	\$ 400,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000

Trees are important assets to the community and provide many benefits to Boulder. In September 2013, Forestry staff discovered an Emerald Ash Borer (EAB) infestation within the city. The subsequent delimitation survey showed that EAB was well established within a corridor in central Boulder. Over the next 15 years, EAB management, including tree removal, tree replacement, wood disposal and pesticide treatments will have a significant direct budgetary impact to the city and private residents. The loss of tree canopy will have considerable economic, social, and environmental impacts for decades. In September of 2015, an Information Item detailing the Emerald Ash Borer management plan was presented to City Council. As a result of the recent discovery of the Emerald Ash Borer (EAB), a response plan has been developed to slow the spread of the pest and maintain a safe community from the potential hazards of multiple dead and dying trees within the urban core of the community. This project will provide funding to educate the community on safe EAB treatment, hire contractors for removal and replacement of the trees affected by the EAB to re-establish streetscapes and park areas that contribute to many of the sustainability goals of the city. This project will include renovation of parking areas, streetscapes, park areas and other sites to remove and replace the trees. The recent Urban Forest Strategic Plan outlined the need to increase annual tree plantings from 400 to 600 to maintain the existing canopy given the decline from EAB. This project provides plantings across the city on locations throughout Parks and Recreation properties.

Capital Planning Studies Total	\$ 330,000	\$ 50,000	\$ 140,000	\$ 140,000	\$ -	\$ -	\$ -
Forestry Emergency Response Plan	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -

A key implementation priority in the Urban Forest Strategic Plan, this will provide funding for a comprehensive plan that identifies planting priorities for the urban forest annual planting initiatives as well as specific response protocol for emergency related events including drought, wind storms, major precipitation events and other threats to the forest canopy. The city manages over 50K trees with an assessed value of \$110M annually in benefits to Boulder. This plan will ensure the maintenance and protection of the canopy and priorities for the replacement plantings. Boulder is susceptible to a variety of weather events that impact the forest including flood, fire, wind and snow. Each of these events require quick response to ensure public safety as well as limiting disturbance to trees.

Master Plan Update	\$ 280,000	\$ -	\$ 140,000	\$ 140,000	\$ -	\$ -	\$ -
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This project will provide funding for consultants and staff to complete a 5-year update to the department's master plan to ensure alignment of departmental programs, services and facilities to meet the needs and goals of the community. This project will likely include an updated community survey and outreach to all members of the community to analyze the mission and offerings of the department. A comprehensive historic and cultural plan will be completed in conjunction with this master plan update to provide for goals and recommendations to ensure the sustainability of the departments' historic and cultural assets over time. This project will also include a comprehensive recreation facility needs assessment to analyze and determine the community's interest in recreation offerings, trends for new facility needs and opportunities for redevelopment of key recreation facilities to better meet the needs of the community. Given the comprehensive outcome of the department's current master plan, this planning process to update the plan won't include a complete renewal of the plan, but consider key areas of the plan that should be considered and refined given current conditions. This will likely include, but not limited to a fiscal analysis, organizational assessment, level of service analysis and community input.

New Facility/Infrastructure Total	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -
Boulder Junction Pocket Park	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -

The Parks and Recreation Department has identified funding to address the future pocket park land acquisition and development associated with the Boulder Junction redevelopment project. This project is a long range infill redevelopment that will include civic public spaces and/or pocket parks that will require Parks and Recreation input, technical expertise and perhaps funding contributions. The proposed project will include land acquisition for a 3/4-acre civic park, construction of Goose Creek multi-use path connection, grading and drainage improvements, hard-scape pavers, retaining walls, landscape, irrigation and civic park amenities to support the park space.



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POLICE



OVERVIEW OF DEPARTMENT MISSIONS/GOALS

The Boulder Police Department's (BPD) mission is partnering with the community to provide service and safety. The mission entails a full range of services which includes but is not limited to crime prevention, enforcement, security, investigations, management of public disorder and quality of life issues, emergency and disaster response, and training. Public safety and crime prevention are the department's top priorities. Through community-oriented policing, the BPD believes in building partnerships with the community to work on solving crime and crime-related problems. Our vision is to strive to be a premier law enforcement agency and a model of excellence in policing by creating partnerships, building trust, reducing crime and improving the quality of life for our community.

CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

The Police Department uses an Incident Command Vehicle (ICV) in critical incidents. The ICV is used as the command center for Police and Fire-Rescue to strategize their response during critical incidents such as fires or floods. This vehicle would allow the department to communicate with other agencies such as Boulder Sheriffs, CU Police and others in large disasters. It is also used during events such as the Bolder Boulder and University of Colorado events that Police provide coverage for.

RECENT ACCOMPLISHMENTS

- **Radio Infrastructure.** The Radio Infrastructure should be completed by the beginning of 2020. This system will resolve the current problems of the existing aging system.





POLICE

FUNDING OVERVIEW

The Police Department is operationally funded by the General Fund. Funding for the Police's capital needs are also funded out of the General Fund in addition to the Police's portion of development excise taxes and impact fees that reside in the Capital Development Fund.

In both instances, funding is sourced on an opportunistic case by case basis given the high dollar value of Police's capital needs. Potential sources of funding for Police's capital projects could include any combination of the below:

- An increase in sales and use tax;
- An increase in property tax mill levy; and/or
- Bond funding.

- **Records Management System (RMS).**

The new RMS provides more powerful data management through crime analysis and crime mapping.

- **Light Rescue Vehicle.**

This vehicle will be used to safely rescue victims and move officers into critical incidents.

- **Body Worn Cameras.**

These ensure both the officer and the community's safety, while providing a recorded record for the prosecution.

- **In-car Cameras.**

These ensure both the officer and the community's safety, while providing a recorded record for the prosecution.

OPERATING AND MAINTENANCE IMPACTS

- The ICV has an on-going replacement, operating and maintenance costs of \$90,276 per year. This type of vehicle has a projected life of fifteen to twenty years.
- The Light Rescue Vehicle as an on-going replacement, operating and maintenance costs of \$47,485 per year. This type of vehicle has a projected life of fifteen years.

UNFUNDED PROJECTS AND EMERGING NEEDS

In the future, BPD will incorporate new initiatives into the planning and budget processes as city resources allow. Examples include: upgrading technology to improve response times and increase efficiency and expanding the Public Safety Building to better accommodate staffing and technology needs.

- **Public Safety Building Expansion and Renovation.** Construct a 25,000-square foot expansion for Police functions along with associated renovations to the existing facility. The renovation would include solar to be net zero and generate its required energy from an on-site solar system. This will provide many opportunities to leverage financial incentives such as rebates, production incentives for the solar system, or even tax credits (captured by a partner with tax liability and passed through to the city). These financial incentives can sometimes cover as much as 50% of the incremental cost that is required to go above the minimum energy code requirements. Estimated cost \$25 to \$30 million.





POLICE



Community Block Party

- **Bomb Robot.**

The current Bomb Robot was purchased in 2012. The replacement fund has approximately \$100,000 towards the replacement. The actual costs for replacement, will be closer to \$350,000 to \$400,000.

- **Bomb Suit.**

The Bomb Squad suits are unfunded and will have an estimated replacement cost of \$35,000 each. The suits are twelve years old and will need to be replaced, since the life expectancy is ten years.

CEAP PROJECTS

N/A

BOARD ACTION

The Police Department does not have an advisory board.

2019 CAPITAL PROJECTS

- **Incident Command Vehicle:**
Replacement of an eighteen year old vehicle used in critical incidents.





POLICE

2019 - 2024 CAPITAL IMPROVEMENT PLAN

Police Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 750,000	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Maintenance Total	\$ 750,000	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -
Incident Command Vehicle (ICV)	\$ 750,000	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -

The Police Department uses an Incident Command Vehicle (ICV) in critical incidents. The ICV is used as the command center for Police and Fire to strategize their response during critical incidents such as fires or floods. The department along with Boulder County Sheriffs, City of Longmont Police, University of Colorado Police and other agencies would use this ICV in multi-jurisdiction incidents as an effective means for communicating with each other. It is also used during large events such as the Bolder Boulder and University of Colorado events that Police provide coverage for. The funding for this vehicle has not been enough to cover the replacement for a vehicle of this type. The estimated cost for the ICV is \$1,000,000. The department does have \$210,000 in the vehicle replacement fund for this vehicle.





TRANSPORTATION



OVERVIEW OF DEPARTMENT MISSIONS / GOALS

The city's transportation budget is formulated within the policy context of the Transportation Master Plan (TMP) and is based on implementing a balanced, sustainable, multi-modal transportation system. The TMP recommends that the city prioritize investments in the transportation system in accordance with the four following priorities:

- Adequately preserve the existing infrastructure
- Strive to increase safety
- Maximize the efficiency of our existing system (roadway, transit, bicycle, and pedestrian)
- Enhance mobility through investments in the completion of the multimodal system (pedestrian, bicycle, and transit)

FUNDING OVERVIEW

An update to the Transportation Master Plan was completed in 2014. The plan update affirmed policy direction and sets the course for Capital Improvements Program (CIP) investments. The CIP reflects transportation infrastructure investment taking place through four separate funds:

- **Airport Fund**
- **Transportation Fund**
- **Transportation Development Fund**
- **Boulder Junction Improvement Fund**





TRANSPORTATION

Airport Fund

The Airport Fund accounts for the operations of the city-owned municipal airport and supports airport investment. It is supported primarily by lease revenue and entitlement funds from the Federal Aviation Administration (FAA).

Transportation Fund

The Transportation Fund accounts for construction, operation and maintenance of all major thoroughfares, local streets, bikeways, walkways and other transportation systems. Funding for city transportation projects comes from several different sources: .6% dedicated sales tax, Highway Users Tax, County Road and Bridge funds, State Highway Maintenance and Landscape funds, and federal grant funds. In November of 2013, Boulder voters passed two tax initiatives that increase the transportation fund by .15% dedicated sales tax annually for 16 years.

Transportation Development Fund

The Transportation Development Fund accounts for development fees to be utilized for the construction of transportation capital improvements related to new development. Funding for the Transportation Development Fund is provided primarily through the transportation excise tax (TET) revenues and a new transportation impact fee established in 2017. The TET was instituted in the 1980's to fund transportation improvements related to growth and is paid by commercial and residential development. The new transportation impact fee was enacted by City Council in early 2017 and went into effect on July 1, 2017. The purpose of the additional impact fee is make additional investments in the transportation system caused by increased demands related to development.

Boulder Junction Improvement Fund

The Boulder Junction Improvement Fund was created in 2011 for the Boulder Junction Key Public Improvements. Funding is provided from development related revenues generated in Boulder Junction that will be reinvested into Key Public Improvements in this area. Because all the Boulder Junction Phase 1 Key Public Transportation Improvements have been either funded or implemented, there is no further funding identified at this time. Future opportunities for infrastructure investment may arise as redevelopment and build-out of the Boulder Junction sub-area occurs.

CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

The projects in the capital improvement program are selected and developed to implement TMP priorities identified in the 2014 TMP Update. The 2014 TMP Update prioritized a system of "complete street" corridors in the city for strategic investment and completion including Arapahoe Avenue, Canyon Boulevard, 30th Street and Colorado Avenue. Complete streets not only include the street envelope but also facilities for the associated ¼ mile travel shed on either side of the corridor.

Other key focus areas within the CIP include preservation of the existing system, safety and Neighborhood Speed Management. Within the context of the CIP, one way that safety is addressed in the engineering component Neighborhood Speed Management and Toward Vision Zero (TVZ) safety initiative approved by council for 2017. Each of the CIP projects considers and implements engineering measures that are intended to yield safety benefits for all users of the transportation system. Also by





TRANSPORTATION

request of City Council, the Neighborhood Speed Management Program (NSMP) was a renewed focus area for 2017, and continues in 2018 as part of the 2018-2023 CIP, the new NSMP is being implemented. The NSMP will include continuing refinement of the program, community engagement process and implementation of projects that are prioritized with the program. Finally, it should be noted that with the citywide focus on Public Art, each of the Complete Streets capital projects being implemented would also incorporate commissioned art in the design and infrastructure, typically at a rate of 1 to 2% (of construction cost), and address and recognize place-making in coordination with land use and zoning and adjacent land owners.

RECENT ACCOMPLISHMENTS

The Baseline Underpass project was completed in June of 2017, and is the 80th underpass in Boulder. The overall project improvements upgraded related multimodal facilities, which decrease stress for people walking and biking and provide significant safety improvements for these modes. The 29th and Valmont traffic signal and intersection improvements were also completed, which now provide safer mobility for vehicles, bicyclists and pedestrians in the area. Gains were made in preserving the existing system by replacing aging pedestrian bridges, chip-sealing and paving degraded street pavement, and upgrading sidewalk/pedestrian facilities around the University Hill area.

2019 CAPITAL PROJECTS

Projects under Construction in 2018:

- Boulder Creek Arapahoe Underpass project (Arapahoe Avenue & 13th Street) and Arapahoe Ave (Broadway to 15th Street) street reconstruction Boulder Creek Path & Lighting Improvements, Eben G Fine Park Bridge to 9th Street
- 28th Street Complete Streets Improvement Project, Pearl to Iris

Projects under Design include:

- Andrus to Airport Multi-use Path (between Andrus and Airport Roads)
- 19th Street Multimodal Improvements Project, Norwood to Violet
- Boulder Slough Multi-Use Path
- North Broadway (Violet to US 36) Reconstruction
- Colorado/Foothills Underpass
- 30th & Colorado Underpass





TRANSPORTATION



OPERATING AND MAINTENANCE IMPACTS

Each of the projects included in the current Transportation CIP will improve operational and/or maintenance conditions and needs. For example, the new underpass at 30th and Colorado will separate bicyclists and pedestrians from vehicles traveling on the street in a busy intersection. Additionally, the 28th Street project will improve aging transit stops and improve pavement conditions along a street that is in great need of repaving.

UNFUNDED PROJECTS AND EMERGING NEEDS

The Transportation Division has a number of unfunded projects identified in the Transportation Master Plan (TMP). These projects range from reconstructing existing underpasses and bridges, reconstructing aging streets, completing missing links of sidewalks and multi-use paths. Transportation has historically used an opportunistic approach to fund major rehabilitation, reconstruction and enhancement projects by taking advantage of external grant fund opportunities. This approach

will continue to be used in the future, however there are numerous indications that there will be less opportunity to do so as there are increasingly limited grant fund opportunities and reduced transportation fund balances due to flattening sales tax revenue. Transportation will continue to use an asset management/prioritization approach to taking on capital projects. This includes optimizing investments in the system in a manner that is fiscally prudent and consistent with the TMP.

CEAP PROJECTS

19th Street Complete Streets (Norwood to Sumac): 19th Street is an important multi-modal travel corridor in North Boulder. This project involves the design and construction of sidewalk, curb and gutter improvements along the west and east sides of 19th Street from Norwood Avenue to Sumac Avenue.

BOARD ACTION

The Transportation Advisory Board (TAB) recommended approval of the draft 2019-2024 Capital Improvement Program on June 12, 2018.





TRANSPORTATION

2019 - 2024 CAPITAL IMPROVEMENT PLAN

Transportation Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 83,199,078	\$ 20,138,916	\$ 16,320,749	\$ 11,422,580	\$ 11,994,500	\$ 11,494,500	\$ 11,827,833
Capital Enhancement Total	\$ 37,510,890	\$ 11,545,740	\$ 4,917,020	\$ 5,380,630	\$ 5,222,500	\$ 5,222,500	\$ 5,222,500
19th St (Norwood to Sumac)	\$ 327,200	\$ 327,200	\$ -	\$ -	\$ -	\$ -	\$ -

This project will design and construct sidewalk, curb and gutter improvements along the west and east sides of 19th Street from Norwood Avenue to Sumac Avenue. The project will also provide a bicycle lane and improve ADA facilities in the project area. We are currently requesting additional funding for this project from CDOT through Safe Routes to School and Transportation Alternatives Program funding. Project phasing and description will be updated upon receipt of additional funds.

Broadway Recon Violet to 36	\$ 5,575,000	\$ 5,575,000	\$ -	\$ -	\$ -	\$ -	\$ -
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This section of Broadway is in deteriorated condition but also has high levels of bicycling, walking, vehicular and transit travel. This section of roadway is a gateway to North Boulder and the downtown and there has been a major redevelopment of the area with additional residential and commercial space. It's anticipated that there will be more redevelopment in the future. The "Low Stress" bicycling network evaluation has identified this corridor for bicycling and pedestrian improvements to accommodate a range of bicyclists and ability levels. The proposed improvements will reconstruct the deteriorated pavement condition of the roadway, provide underground utility upgrades and provide additional bicycle, pedestrian and transit improvements to address future travel needs. Connections to adjacent intersecting transportation facilities will be made.

Greenways Program Transportation	\$ 585,000	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500
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This project will provide Transportation's contribution to the overall greenways program. Funding will be opportunistic and prioritized with the other funding in the Greenways CIP. These funds will be combined with funding from the Transportation and Utilities Fund. This project is for an ongoing funding program. For more information, go to <https://bouldercolorado.gov/water/greenways-program>.

Intersection Safety Projects	\$ 817,840	\$ 434,440	\$ 80,520	\$ 302,880	\$ -	\$ -	\$ -
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The Intersection Safety Projects are funded almost entirely by a grant from the Highway Safety Improvement Program (HSIP), a federal grant program for local communities to improve safety at high hazard locations. The City is a recipient of HSIP grant funds to implement safety mitigation treatments at three intersections around the City. These intersection locations are Colorado/Regent, Baseline/29th and Broadway/Rayleigh. The safety treatments to be installed at all three locations will improve safety for vehicles, bicycles and pedestrians.

Misc Development Coordination	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
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This ongoing funding is intended to construct infrastructure improvements in coordination with or prompted by potential private development. Throughout the year, situations arise where infrastructure improvements required in the vicinity of a proposed development should be made at the same time as the development, and for which a developer cannot be required to construct. Improvements that are typically included are bike and pedestrian, functional efficiency, safety, system preservation, and transit system improvements. This project is growth related because it addresses needs from new development. A major goal in the Transportation Master Plan is to create an integrated multimodal system and one that is supportive of land use patterns. In the near term, the money will be used for issues that arise during the year that are small items required to be constructed as a result of development or to coordinate with a development project. The projects are not known at this time.

Neighborhood Speed Mgmt Program	\$ 1,500,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
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Neighborhood traffic calming efforts are intended to address speeding traffic on residential streets through a combination of education, enforcement and engineering tools. The City of Boulder has been working on these efforts in various forms and programs since the early 1990s. The original Neighborhood Traffic Mitigation Program was developed by a working group in 1994 and was adopted by City Council in December, 1994. Prior to the development of the (NTMP) in 1994, the City of Boulder installed speed humps through a neighborhood speed hump petition program. City staff operated the NTMP for a little over a year, working on several projects including potential mitigation in the Whittier and Balsam/Edgewood neighborhoods. However, concerns about emergency response issues caused the program to be put on hold in 1996. After considerable process and review, City staff developed a much more robust set of NTMP guidelines to address concerns of impacts to emergency response and adequate public participation and support. These were adopted by City Council in 2000. In 2003, funding for the program and the position was eliminated due to the economy and decreasing city revenues.

During the 2016 City of Boulder Budget Adoption process, the City Council expressed interest in restoring the NTMP or a similar program to provide mitigation to neighborhoods experiencing speeding traffic and directed staff to redesign the program with the community. In February 2017, the city began a process to redesign the NTMP and to include funding of engineering treatments in the program again. Based on feedback from the community, city staff researched traffic mitigation programs from around the country, and existing organizational structure. The Neighborhood Speed Management Program been renewed and is now included in the Transportation Capital Improvement Program.

This redesigned Neighborhood Speed Management Program (NSMP) uses a combination of education, enforcement and engineering treatments to mitigate the negative effects of speeding traffic on neighborhood streets. The annual funding will be used to staff 1 new FTE position and several education tools such as speed trailers and engineering treatments for simple speed hump projects and the design of 1 complex project to be constructed in 2019.





TRANSPORTATION

Transportation Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
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Pavement Management Program \$ 28,405,850 \$ 4,811,600 \$ 4,439,000 \$ 4,680,250 \$ 4,825,000 \$ 4,825,000 \$ 4,825,000

The City of Boulder's budget priorities for transportation funding are the safety and preservation of the transportation system, including maintaining all streets in a good and safe condition. The Transportation Division has established a Pavement Management Program (PMP) for Boulder's 300-mile street system, which includes inspecting and rating all streets on a three-year interval to maintain awareness of existing conditions and guide where pavement repairs will be made in future years. The purpose of the Pavement Management Program is to provide the optimal level of funding, timing, and renewal strategies that will keep the citywide street pavement network at or above a "Good" OCI rating. The end result is that the best strategy may be to defer a costly reconstruction on one street in order to complete less expensive treatments on other streets to minimize its deterioration into a more costly type of treatment, such as reconstruction. Street treatments that may take place under this program include mill/overlay, chip-seal, and crack-fill/seal.

Capital Maintenance Total \$ 18,784,855 \$ 1,733,176 \$ 7,473,729 \$ 2,211,950 \$ 2,722,000 \$ 2,322,000 \$ 2,322,000

Deficient Street Light Pole Replace \$ 484,000 \$ - \$ - \$ 121,000 \$ 121,000 \$ 121,000 \$ 121,000

This project will provide funds to be paid to Xcel Energy for the replacement of Xcel Energy street light poles that are structurally deficient due to corrosion or physical impact damage. On site inspection by Xcel has revealed 155 poles that require immediate replacement; 54 poles require replacement within one year; 217 poles require replacement within two to three years; and 99 poles require replacement within five to six years. Based on historic cost data, Xcel estimates the average replacement cost to be \$2,439 per pole. This street light repair project has been mandated by Xcel Energy and is consistent with their practice in communities throughout the front range at this time.

Major Capital Reconstruction \$ 4,960,350 \$ 595,350 \$ 810,000 \$ 855,000 \$ 900,000 \$ 900,000 \$ 900,000

The Major Capital Reconstruction project provides funding to repair existing transportation assets that are close to or at the end of their useful life. Repairs could be for roadway, bikeway, pedestrian or transit capital assets. This funding is primarily focused on improving the health of minor structures and bridges. This funding will provide the ability to complete the capital repairs that are not eligible for grant funding or to be used as leveraged funds for this type of project as opportunities arise.

Multiuse Path Capital Maintenance \$ 2,428,539 \$ 365,639 \$ 399,950 \$ 399,950 \$ 421,000 \$ 421,000 \$ 421,000

The City of Boulder's budget priorities for transportation funding are the safety and preservation of the transportation system, including maintaining all multi-modal corridors in a good and safe condition. The Transportation Division is charged with providing major maintenance to the off-street multi-use path network. This budget addresses activities such as replacing panels of concrete, flood proofing underpasses and re-decking pedestrian overpasses.

Ped Facilities Repair, Replace, ADA \$ 3,628,387 \$ 546,287 \$ 597,550 \$ 597,550 \$ 629,000 \$ 629,000 \$ 629,000

This ongoing program allows for repair, replacement and construction of existing and new sidewalks and construction of access ramps. Sidewalk repair priorities have been established in the Sidewalk Repair Program and yearly funding is spent accordingly. Compliance with ADA is resulting in additional expenditures for access ramps and driveway modifications. This program meets the Transportation Master Plan (TMP) goal of creating an integrated, multimodal transportation system, emphasizing the role of the pedestrian mode as the primary mode of travel as it is in the beginning and end of every travel trip. The program also meets federal ADA requirements of working towards bringing sidewalks and access ramps up to the current federal standards. And, the TMP investment policies identify maintenance as the highest priority item to fund.

Rehab Runway & Eastern Taxiway \$ 5,427,779 \$ - \$ 5,427,779 \$ - \$ - \$ - \$ -

Project includes subgrade stabilization, re-paving and re-painting of Runway 8/26 and eastern half of Taxiway Alpha. Design has begun in 2018 and construction is scheduled to begin in 2020. Runway 8/26 is the only runway for powered aircraft and essential for operations at the airport. The runway was last paved in 2001, has an approximate lifespan of 20 years, and this project was included in the 2007 Airport Master Plan CIP schedule. The project is funded 93% by federal and state grant proceeds.

Sidewalk Maintenance \$ 1,455,800 \$ 225,900 \$ 238,450 \$ 238,450 \$ 251,000 \$ 251,000 \$ 251,000

The City of Boulder's budget priorities for transportation funding are the safety and preservation of the transportation system, including maintaining all pedestrian corridors and sidewalks in a good and safe condition. The Sidewalk Maintenance budget funds the Miscellaneous Sidewalk Repair Program which shares in sidewalk repairs anywhere in the city with property owners paying for half of the repair costs for sidewalks adjacent to their property, with no out of pocket maximum for residential property owners.

Signal Maintenance & Upgrade \$ 400,000 \$ - \$ - \$ - \$ 400,000 \$ - \$ -

The Signal Maintenance and Upgrade project is an on-going program that is used for the installation of new traffic signals and signal upgrades. Budgeting as a capital project at \$400,000 every four years as opposed to budgeting one-quarter of this amount every year is consistent with the project implementation, as this is approximately the cost to signalize or upgrade one intersection.

Capital Planning Studies Total \$ 483,333 \$ 150,000 \$ - \$ - \$ - \$ - \$ 333,333

Airport Master Plan \$ 333,333 \$ - \$ - \$ - \$ - \$ - \$ 333,333

TMP Update \$ 150,000 \$ 150,000 \$ - \$ - \$ - \$ - \$ -

This request funds the initial year of the TMP update, including technical research and evaluation, consultant support, coordination across departments and with partner agencies, and extensive public process activities. The full update is expected to be completed in 2019. The update of the TMP will reprioritize and add to the TMP Action Plan which provides guidance to the work program of Transportation in the near, mid and longer terms. The update allows for a comprehensive review of the TMP relative to broader community goals and of the Action Plan with council to assure it reflects council priorities for transportation.





TRANSPORTATION

Transportation Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
New Facility/Infrastructure Total	\$ 26,420,000	\$ 6,710,000	\$ 3,930,000	\$ 3,830,000	\$ 4,050,000	\$ 3,950,000	\$ 3,950,000
30th St and Colorado Bike/Ped Under	\$ 5,000,000	\$ 5,000,000	\$ -	\$ -	\$ -	\$ -	\$ -

The University of Colorado's development of their East Campus will significantly increase bicycle, pedestrian and transit travel between the main and east campuses including the Colorado Avenue and 30th Street corridors. This connection will join the two campus areas with a safe grade separated crossing/underpass crossing Colorado Avenue and 30th Street. This project is included in the Transportation Master Plan. This project will provide direct access to transit stops serving the STAMPEDE, BOUND and 209 transit services and connect the University neighborhoods with the Park East and other neighborhoods in East Boulder. 30th Street is identified as a Regional Corridor in the DRCOG Regional Bicycle Corridor System. Colorado Avenue is within a 1/4 mile of the identified Boulder Creek Community Corridor of the DRCOG Regional Bicycle Corridor System and fulfills the function of that facility as a connection between the two campuses of the University of Colorado a major regional employer and institution. The final configuration will be determined through the city's public involvement and design analysis process.

Multiuse Path - Enhancements	\$ 1,170,000	\$ 135,000	\$ 180,000	\$ 180,000	\$ 225,000	\$ 225,000	\$ 225,000
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This funding is an ongoing program for expanding and improving the off-street multiuse path network. The construction of multiuse path facilities is included in almost all other transportation CIP projects. This program provides additional funding for small-scope multiuse path projects and/or projects not specifically associated with other capital projects. Projects constructed with this funding meet the Transportation Master Plan goal of developing an integrated multimodal transportation system. Projects will be consistent with the current bike, pedestrian, and transit modal plans as well as the TMP, and the projects are prioritized yearly. In 2016, funds will be spent on completing the southern confluence path connection along Valmont Road to Indian Road and for path connections to the east of the Valmont bike park. In further out years, funds will be spent on completing multiuse path connections in the confluence area as well as identifying and constructing improvements to the overall citywide system.

Ped Facs Enh Missing Links Crossing	\$ 650,000	\$ 75,000	\$ 100,000	\$ 100,000	\$ 125,000	\$ 125,000	\$ 125,000
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The Pedestrian Facilities budget is an ongoing funding program that includes the installation of missing sidewalk links and pedestrian crossing/safety treatments and potentially social paths and sidewalk widening improvements. The list of identified missing sidewalk links has been prioritized for construction. Crossing treatment improvements are prioritized citywide and include median refuge islands, crosswalk lighting, flashing signs, neck-downs, signing, lighting and/or pedestrian signals. This program meets the Transportation Master Plan goal of creating an integrated, multimodal transportation system emphasizing the role of the pedestrian mode as the primary mode of travel as it is the beginning and end of every travel trip.

TIP Local Match TMP Implementation	\$ 4,100,000	\$ 700,000	\$ 800,000	\$ 700,000	\$ 700,000	\$ 600,000	\$ 600,000
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This ongoing funding is for the implementation of projects identified in the Transportation Master Plan (TMP) that will be prioritized in the current update to the Master Plan. This money will also be used as local match to leverage potential federal and state funding for project submitted in future years' Denver Regional Council Of Governments (DRCOG) Transportation Improvement Program (TIP) submittal process (the next process starts in 2018 with funding available for 2019/2020) or other funding match opportunities, developing conceptual plans for projects prior to submitting for possible external funding or for smaller high priority projects identified through the TMP process. If the city succeeds in acquiring external project funds, this money will become the city's funding match. And, in this case, new projects will be created in the CIP that will include the external funding and the city's match.

TIP Local Match/TMP Implementation	\$ 15,500,000	\$ 800,000	\$ 2,850,000	\$ 2,850,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
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This ongoing funding is for the implementation of capital enhancement projects identified in the Transportation Master Plan that will be prioritized in the current update to the master plan. This money will also be used as local match to leverage potential federal and state funding for project submitted in future years' DRCOG TIP submittal process (the next process starts in 2018 with funding available for 2019) or other funding match opportunities, developing conceptual plans for projects prior to submitting for possible external funding or for smaller high priority projects identified through the TMP process. If the city succeeds in acquiring external project funds, this money will become the city's funding match. And, in this case, new projects will be created in the CIP that will include the external funding and the city's match. This budget item allows flexibility to be ready to implement high priority projects that are identified through the TMP update that was completed in 2014 and is being updated in 2018. The highest priority projects identified in the TMP that best meet the DRCOG scoring criteria are submitted to compete for federal funding. Prior to finalizing the list of projects to submit for DRCOG TIP funding, staff will work with TAB to identify the best projects and then submit the project list to council for their review prior to submitting for potential funding.



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UTILITIES & GREENWAYS



OVERVIEW OF DEPARTMENT MISSION

The Utilities Division is responsible for the oversight of water, wastewater, and stormwater and flood management services. The mission of the Utilities Division is to provide reliable water services while emphasizing efficient fiscal and natural resource management and to protect human and environmental health. These services include:

- Water Resources and Hydroelectric
- Water Treatment and Distribution
- Wastewater Collection and Treatment
- Stormwater and Floodplain Management

FUNDING OVERVIEW

Each of the city's three utilities is established as a separate enterprise fund designed to finance and account for related facilities and services. Funding for the Utilities Division capital improvement program (CIP) is derived primarily from monthly utility fees. In addition to the monthly utility fees, revenue sources include Plant Investment Fees (PIFs) from new development or redevelopment and hydroelectric sales.

Additional revenue sources include funding from the Urban Drainage & Flood Control District (UDFCD), for stormwater/flood management projects, Colorado Department of Transportation (CDOT) state and federal grants, and revolving loans from the Colorado Department of Public Health and Environment (CDPHE). Revenue from monthly utility fees can vary depending on weather fluctuations. Revenues from outside sources are project specific and can also vary depending on the external agency's funding situation and priorities. Utility





UTILITIES & GREENWAYS

rate increases to meet revenue needs are reviewed annually by the Water Resources Advisory Board (WRAB) prior to consideration by City Council.

Projects may be funded by issuing revenue bonds with the debt service financed by general utility charges. For the years 2019-2024, it is anticipated that new bonds will be issued for the following projects:

Water

- Barker Dam Outlet and Albion Dam Rehabilitation (\$19M) in 2022

Wastewater

- Interceptor Sewer Realignment Project (\$10M) in 2019
- Wastewater Treatment Facility Biogas Project (\$4M) in 2019
- Wastewater Treatment Facility Phosphorus Improvements (\$18M) in 2022
- Arapahoe trunk sewer replacement (\$13M) in 2022

Stormwater & Flood Management

- South Boulder Creek Phase I improvements (\$30M) designed to mitigate flood hazards in the South Boulder Creek west valley area in 2020
- Upper Goose Creek major drainageway and storm sewer improvements (\$24M) in 2023

The preliminary 2019 budget reflects the following revenue increases: 7 percent Water, 5 percent Wastewater, and 5 percent Stormwater/Flood Management. The following table summarizes the 2018 adopted revenue increase and proposed revenue increase projections for 2019-2021. The proposed 2019 increase are in bold.

PROPOSED UTILITY RATE INCREASES

	2018	2019	2020	2021
Water	8%	7%	7%	7%
Wastewater	5%	5%	5%	5%
Stormwater/Flood Management	7%	5%	5%	5%





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CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

Water Utility

The Water Utility CIP will address a combination of source water and treated water needs focusing on the rehabilitation and replacement of existing assets. The source water system is comprised of numerous reservoirs, dams, gravity and pressure pipelines, and hydroelectric facilities that deliver water to the city's two water treatment plants. The treated water system is comprised of two water treatment plants, six storage tanks, 460 miles of water main, and four hydroelectric facilities.

Much of the source water system infrastructure is approaching the end of its useful life. Water Fund capital investment over the next decade will focus on the Barker Gravity system which is 100+ years old. Utilities staff is recommending funding the complete replacement of this system over a 12-year period. This accelerated schedule (previously 15 years) is intended to minimize the water supply risk associated with the Barker Gravity system which provides approximately one third of the city's total water supply. This work will involve replacement of the Barker Gravity pipeline including its seven siphons, and the Boulder Canyon penstock. Major improvements to the Barker Dam outlet works (\$9M) and Albion Dam (\$10M) are scheduled for 2022.

There are several components of the treated water system that will continue to require improvements in the upcoming years. The Betasso WTP Improvements project began in 2016 and will continue through early 2019. The Devils Thumb storage tank (\$1.5M) is scheduled for rehabilitation in 2022. The treated waterline replacement

program continues to replace approximately four miles (1% of the system) of waterline annually at a cost of approximately \$3.5M. Lastly, Utilities staff will begin an assessment of the treated water transmission system (14-inch pipe and larger) in the upcoming years to evaluate the needs of that system.

Wastewater Utility

The Wastewater Utility CIP will address a combination of wastewater collection system and wastewater treatment needs focusing on the rehabilitation and replacement of existing assets. Utilities staff will continue with the annual wastewater collection system condition assessment and rehabilitation programs that address the city's aging infrastructure. Utilities staff will also begin the design and construction phases of several of the Wastewater Collection System Master Plan's (WWCSMP) high priority (Tier 1) projects to address the system's hydraulic limitations. Two of the four Tier 1 projects (Goose Creek Trunk sewer and the Foothills & Baseline Trunk sewer) were funded in last year's CIP. The other two Tier 1 projects are funded in the 6-year CIP. These projects include the Interceptor Sewer Realignment project (2019 - \$20M), and the Arapahoe Trunk Sewer project (2022 - \$13M).

There are several projects identified for the wastewater treatment facility (WWTF) in the six-year CIP. The largest project is the upcoming Regulation 85 CDPHE permit driven nutrient improvements project to address more stringent phosphorus regulations. Other projects include major electrical improvements (2018), the WWTF Biogas project (2019) secondary digester cover replacement (2020), the secondary clarifiers rehabilitation project (2021), the primary clarifiers





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rehabilitation project (2022), and the Phase 2 (2019) and Phase 3 (2024) instrumentation and controls (I&C) projects.

Stormwater & Flood Management Utility

The Stormwater & Flood Management Utility CIP will address a combination of major drainageway and storm sewer improvements focusing primarily on the development and construction of new assets. The focus for flood mitigation projects in the near-term is on Fourmile Canyon Creek upstream of 19th Street and South Boulder Creek detention upstream of Hwy US 36. These projects have been through an extensive planning process and are intended to address areas with a high flood risk. Funding is also included (2018) for the design of improvements along Gregory Canyon Creek upstream of the Highland Bridge to address flooding up to a 10-year storm event. Funding is included for the Upper Goose Creek drainageway between 19th street and Folsom, as well as storm sewer improvements between 4th street and 19th Street. There is also funding shown for Boulder Creek/Boulder Slough (2018) in anticipation of improvements in the Civic Area and development downstream of 30th Street.

Capital improvements for the storm water collection system will focus on expansion of the system into underserved areas and capacity improvements to address hydraulic bottlenecks identified in the 2017 Stormwater Master Plan (SMP). Underserved areas refer to locations that do not have existing storm sewer infrastructure or roadside ditch capacity to convey the 2-yr or 5-yr storm event for residential and commercial areas respectively. Specific projects will include an expansion of the storm sewer system along Pearl Street between 17th Street and 21st Street.

Major drainageway flood mitigation plans are underway in 2018 for Upper Goose Creek, Twomile Canyon Creek, Skunk Creek, King's Gulch and Bluebell Canyon Creek. These plans will help identify future flood mitigation projects. In addition to these mitigation plans, an update to the Comprehensive Flood and Stormwater Utility Master Plan is planned. The master plan update will consider policy level issues addressing the balance between major drainageway and storm sewer infrastructure needs. This master plan update will include a prioritization of the major drainageway programs as well as the need to add new, and rehabilitate existing, storm sewer infrastructure to help inform future CIP planning.

Over \$170 million of major drainageway improvements have been identified along Boulder Creek and the 14 tributaries. At current funding levels, it will take approximately 100 years to complete these improvements and most identified needs are not funded in the 6-year CIP. The prioritization study will identify the most critical needs and evaluate appropriate funding levels.

RECENT ACCOMPLISHMENTS

Water Utility

- Betasso Water Treatment Plant Improvements - construction began in late 2016 with an estimated cost of \$35M and is scheduled for completion in early 2019.
- Carter Lake Pipeline is anticipated to begin construction in 2018.
- Barker Gravity Line Rehabilitation – on-going.
- Treated Water System Rehabilitation on-going.
- Zone III Transmission System construction completed in April 2018.





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Wastewater Utility

- Wastewater Treatment Facility Biogas Project in 2019.
- Wastewater Treatment Facility Electrical Upgrades construction in 2018.
- Wastewater Treatment Facility Phosphorus Upgrades construction in 2022.
- Goose Creek Trunk Sewer Replacement construction in 2018.
- Foothills and Baseline Trunk Sewer Replacement construction in 2018.
- Arapahoe Avenue Trunk Sewer Replacement construction in 2022.
- Interceptor Sewer Replacement construction in 2019.
- Condition assessment program on-going.
- Sanitary Sewer Rehabilitation on-going.

Stormwater & Flood Utility

- Wonderland Creek Improvements construction between Foothills Highway and Winding Trail will be completed in 2018.
- South Boulder Creek Phase 1 Regional Detention begin construction in 2020.
- Fourmile Canyon Creek 19th to Broadway anticipated to be bid in 2019.
- Gregory Canyon Creek upstream of Arapahoe Avenue design in 2019.
- Storm sewer Rehabilitation on-going.

OPERATING AND MAINTENANCE IMPACTS

The majority of the utilities expenditures are for rehabilitating and improving existing capital infrastructure. The infrastructure is core in carrying out the utilities' mission of delivering safe and reliable water to our customers, ensuring that water is available for fire protection, conveying and treating wastewater and stormwater and mitigating the effects of flood events. Rehabilitating and improving the capital infrastructure reduces the need to react to failures, and disruption to customers and the community.

Water Utility

Engineering staff is working with O&M staff to develop in house capabilities to assist with main replacement construction and smaller project execution at the treatment facilities and throughout the treated water system.

Wastewater Utility

The sanitary sewer system condition assessment program serves as a supplement to the City's ongoing maintenance efforts, resulting in additional sewer cleaning and inspection beyond the routine cleaning and inspection that maintenance staff already performs. This allows maintenance staff to focus more heavily on areas requiring frequent repeat cleanings due to issues such as roots or fats, oils, and grease.

Stormwater & Flood Management Utility

Flood and greenways improvements along Wonderland Creek between Foothills Parkway and Winding Trail will be completed in 2018. The flood mitigation improvements are an enhancement to an existing channel which is currently being maintained





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by the city. New sections of a multi-use path and several new underpasses will be constructed, which will require on-going maintenance starting in 2018. The Fourmile Canyon Creek improvements at 19th Street and upstream of Upland Avenue will also enhance the existing channel and will add several new underpasses and sections of multi-use path that will require on-going maintenance, which is anticipated as early as 2020. Improvements to the Upper Goose Creek storm sewer system and Goose Creek channel is also considered an enhancement. The project will require the installation of new storm sewers and improvements to the existing channel, which is located on private property. Easements will be acquired prior to constructing channel improvements and the city will be responsible for on-going channel and storm sewer maintenance following completion of the project, which is estimated to be in 2025.

UNFUNDED PROJECTS AND EMERGING NEEDS

Based on City Council accepted flood mitigation plans and estimates for Skunk, Two-mile, Upper Goose and Sunshine Creeks, \$170 million of major drainageway improvements have been identified. These improvements vary from addressing the 10-year storm event to constructing 100-year improvements. Based on current funding levels, these improvements could take 100 years to complete.

The storm sewer condition assessment program has identified a need for sewer rehabilitation and replacement far beyond the previously assumed levels of construction. The condition assessment program has not yet completed a full assessment of the complete storm sewer system, but what has been inspected so far indicates that increased funding for storm sewer rehabilitation will be necessary.

Emerging needs have been identified as part of the recent Water Utility Master Plan. During the development of this master plan, a technical analysis was performed regarding the city's water treatment facilities and associated infrastructure. The analysis indicates that this infrastructure should be adequate to meet water demand needs well into the future with little need for capacity expansion. However, a comprehensive analysis of existing assets pointed to the poor condition and aging of source water infrastructure.

Regulatory changes are another source of uncertainty and create emerging needs. For example, as explained in the Highlights section of this memo, the city received a new discharge permit for the 75th Street Wastewater Treatment Facility in 2011 with new effluent limits. Complying with these limits will require a combination of regulatory negotiations, environmental studies and Wastewater Treatment Facility capital improvements.

CEAP PROJECTS

Upper Goose Creek Storm/ Flood: The Upper Goose Creek area remains a high priority for both major drainageway improvements and storm sewer improvements. The Upper Goose major drainageway (open channel) and the Upper Goose Creek storm sewer (pipes) funding has been combined into a single project to address both components. The 2007 and 2017 Storm water Master Plans identified this project as the highest storm water system improvement priority. This project will fund the construction of storm sewer improvements in the Upper Goose Creek drainage basin located between 4th and Folsom Streets. The scope of work includes upsizing existing storm sewers from 9th St to 19th St and expanding





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the sewer system into residential areas west of 9th St. The project also includes open channel improvements to accommodate 5yr flood flows in Goose Creek from 19th St to Folsom St.

Wittemyer Ponds: This project consists of multiple reservoirs planned for potential use for city water exchanges. An alternatives study and CEAP are planned for 2019 with design and construction for 2020/2021.

Boulder Creek Flood Mitigation: As specific projects and their scope are identified the need for a CEAP will be evaluated in the city's annual process.

Two Mile Creek Flood Mitigation: As specific projects and their scope are identified the need for a CEAP will be evaluated in the city's annual process.

BOARD ACTION

The preliminary 2019 Utilities budget and 2019-2024 CIP was presented to the WRAB on May 21, 2018 as a discussion item. The WRAB hosted a public hearing and continued their discussion on the 2019-2024 CIP at their June 18, 2018 meeting, and voted 3-0 (two members absent) to recommend approval of the proposed CIP.

2019 CAPITAL PROJECTS

Water Utility

- Carter Lake Pipeline
- Barker Gravity Line Rehabilitation
- Water distribution system rehabilitation

Wastewater Utility

- Wastewater Treatment Facility Instrumentation improvements
- Wastewater Treatment Facility cogeneration improvements
- Sanitary sewer rehabilitation

Stormwater & Flood Utility

- Fourmile Canyon Creek 19th to Broadway
- South Boulder Creek Regional Detention Upstream of US 36
- Storm sewer Rehabilitation





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GREENWAYS 2019 - 2024

The City of Boulder Greenways System is comprised of a series of corridors along riparian areas including Boulder Creek and its 14 tributaries, which provide an opportunity to integrate multiple objectives, including habitat protection, water quality enhancement, storm drainage and floodplain management, alternative transportation routes for pedestrians and bicyclists, recreation and cultural resources.

The Greenways CIP follows an opportunistic approach, contributing funding toward projects that are being completed by other departments or private development to meet the various objectives of the Greenways Program. The Greenways CIP also looks to leverage funds with outside agencies to move projects forward that meet more than one objective of the Greenways Program but may not be the highest priority when evaluating any one particular objective.

Projects included in the Greenways CIP are typically called out in the Greenways Master Plan and are projects that Greenways staff can take the lead in coordinating.

GREENWAYS FUNDING OVERVIEW

- **Transportation Fund**
- **Stormwater Fund**
- **Lottery Fund**

GREENWAYS 2019 CAPITAL PROJECTS

Fourmile Canyon Creek 19th to Broadway: multi-use path, development of Violet Park, and increase flood conveyance capacity. Project is a collaborative effort with flood mitigation, transportation, and parks.

GREENWAYS CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN 2019

The focus of the Greenways CIP in 2019-2020 is on flood mitigation, bicycle and pedestrian multi-use paths and underpasses, and habitat and water quality improvements along the Fourmile Canyon Creek corridor. These improvements are also being coordinated with the development of the Violet Park site. The Greenways program has also secured additional funding through the city's capital tax program to help fund this project.

In 2021-2024, funding for these types of improvements is shown for Skunk, Twomile Canyon and Goose Creek in anticipation of future major drainageway improvements along these corridors.





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For more information about the timing and details of these projects, please see the Utilities - Stormwater/Flood web page: <https://bouldercolorado.gov/flood/creek-projects>

In addition, a list of potential restoration, water quality and trail improvement projects that meet more than one Greenways objective during the next few years are listed below.

- Pedestrian Bridge at Linden & Twomile Canyon Creek.
- Underpass at Arapahoe & Boulder Creek.
- Multi-Use Path at Airport Road & Valmont Park.
- Underpass at 26th St & Fourmile Canyon Creek.
- Underpass at Foothills & Colorado.
- Underpass at Broadway & Fourmile Canyon Creek.
- Removal of Ash trees infected with Emerald Ash Borer along Boulder Creek.
- Park Improvements at Howard Hueston Park & Wonderland Creek.
- Restoration Foothills to Valmont at Boulder Creek.
- Park Construction at Violet Park & Fourmile Canyon Creek.
- Pedestrian Bridge & 800' of Creek Restoration at Fourmile Canyon Creek - west of Broadway.
- Restroom at 744 University & Gregory Canyon Creek.
- Restoration at Boulder Junction & Goose Creek.

GREENWAYS RECENT ACCOMPLISHMENTS

The Wonderland Creek project construction began in January 2016. The project extends from Foothills Parkway in the south to Winding Trail Drive in the north. The project includes 100-year channel im-

provements, three new underpasses and replanting 1,884 trees and shrubs. The Wonderland Project is now over 90 percent complete and anticipated to be at final completion in the summer of 2018.

GREENWAYS OPERATING AND MAINTENANCE IMPACTS

\$105,000 is budgeted each year for Greenways operations and maintenance. \$80,000 of the operating budget is dedicated to habitat maintenance. The Greenways habitat crew works closely with Parks and Open Space maintenance staff to provide on-going maintenance, as well as on collaborative projects as part of the operations budget. Major drainageway improvements are maintained by the flood maintenance staff and multi-use paths and underpasses are maintained by either Transportation or Parks maintenance, depending upon jurisdiction.

GREENWAYS UNFUNDED PROJECTS AND EMERGING NEEDS

Since the Greenways Program is opportunistic, taking advantage of projects that are funded through other departments, there are no unfunded needs.

GREENWAYS CEAP PROJECTS

N/A

GREENWAYS BOARD ACTION

The Greenways Advisory Committee met on June 28, 2018 to review the 2019-2024 Greenways Program CIP and unanimously (6-0) recommended approval of the 2019-2024 CIP to City Council.





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2019 - 2024 CAPITAL IMPROVEMENT PLAN

Utilities - Water Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 100,029,306	\$ 10,189,757	\$ 12,425,271	\$ 13,738,310	\$ 34,146,784	\$ 14,247,627	\$ 15,281,559
Capital Enhancement Total	\$ 14,215,846	\$ 933,331	\$ 100,000	\$ 962,225	\$ 10,774,192	\$ 100,000	\$ 1,346,099
Automated Meter Reading	\$ 769,727	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 769,727
This project will replace water meters with a system allowing for remote reading of usage.							
Barker Dam Outlet	\$ 10,399,543	\$ 200,000	\$ -	\$ 912,225	\$ 9,287,318	\$ -	\$ -
This project will provide funds for the rehabilitation/replacement of the existing outlet works system of Barker Dam. The Barker Dam outlet facilities are over 100-years old and in need of significant rehabilitation. The current configuration of the outlet gates requires that Barker Reservoir be nearly emptied to perform a thorough inspection once every 5-10 years. Reconfiguration of the outlet facilities would potentially eliminate the need to empty the reservoir for gate inspection. As currently envisioned, the project would require construction of a vertical shaft near the north embankment, inlet tunnels and one outlet tunnel, an outlet distribution facility, a pipeline to Barker Gravity Line, and valve house. The outlet facilities would provide the opportunity to develop a hydroelectric generation facility as well. Information regarding the alternative approaches will be provided as part of the Community & Environmental Assessment Process (CEAP).							
Devil's Thumb Storage Tank	\$ 1,486,874	\$ -	\$ -	\$ -	\$ 1,486,874	\$ -	\$ -
The Devil's Thumb Storage Tank is a 2 million gallon tank located near Chautauqua. This project is for improvements associated with painting, structural steel rehabilitation.							
Lakewood Hydroelectric/PRV	\$ 350,000	\$ 300,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -
The Lakewood Hydroelectric station is located on the raw water transmission system near Betasso Water Treatment Facility. This project provides ongoing enhancements of hydro-electric equipment at this location as systems age or need to be replaced. A generator overhaul was completed in 2016 and a pressure reducing valve refurbishment is planned for 2019.							
Orodel Hydro/PRV Facility	\$ 200,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -
The Orodel facility is a treated water pressure reducing and hydroelectric facility located below Betasso Water Treatment Facility. This project is upgrade the electrical panel.							
Pearl Street Hydro/PRV Facility	\$ 243,331	\$ 243,331	\$ -	\$ -	\$ -	\$ -	\$ -
This project includes installation of a hydroelectric turbine and generator at the city's Pearl Street pressure reducing facility. Currently water pressure is reduced using a pressure reducing valve which wastes the available energy in the water. This energy will be captured to produce electricity with the addition of the turbine and generator.							
Water System Security/Quality Imprv	\$ 90,000	\$ 90,000	\$ -	\$ -	\$ -	\$ -	\$ -
This project will provide funds for water system security upgrades. New Federal guidelines call for increased protection of drinking water systems from terrorist and other threats. City staff recently updated the water system security vulnerability assessment. Numerous recommendations for security vulnerability improvements have been made. Water quality monitoring will be installed in conjunction with security improvements where appropriate.							
Wittemyer Ponds	\$ 676,372	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ 576,372
Wittemyer Ponds consists of multiple reservoirs planned for potential use to facilitate city water exchanges. Alternatives for improving the ponds to reservoirs will be considered for final implementation.							
Capital Maintenance Total	\$ 84,963,460	\$ 9,256,426	\$ 12,165,271	\$ 12,616,085	\$ 23,162,592	\$ 13,987,627	\$ 13,775,460
Albion Dam	\$ 10,853,761	\$ -	\$ -	\$ 986,706	\$ 9,867,055	\$ -	\$ -
In 2016, the reservoir underwent emergency repair at the outlet works. In 2017, a rehabilitation alternative study was issued. This project will fund the dam liner, crest and spillway repair as recommended in the Source Water Master Plan, MWH, 2008.							
Barker Gravity Pipeline Repair	\$ 25,412,140	\$ 4,143,482	\$ 3,759,286	\$ 3,618,892	\$ 5,337,641	\$ 4,197,470	\$ 4,355,369
This project will provide funds for ongoing repairs to the Barker Gravity Pipeline. A rehabilitation segment was placed in 2016 and the results updated the 12-year rehabilitation cost estimates forecast for 2017 to 2028. Grout patching repairs will continue in the segments not being rehabilitated in any given year.							
BCH Penstock Repair	\$ 5,175,158	\$ 100,000	\$ 937,012	\$ 974,492	\$ 1,013,472	\$ 1,054,011	\$ 1,096,171
The BCH Penstock is a pressure pipeline that delivers water from Kossler Reservoir to Boulder Canyon Hydro. This project will provide funds for analysis and targeted repairs for areas discovered in the inspection in 2019. An analysis will be performed on approximate remaining operational life including recommendations from metallurgical and corrosion experts. The rehabilitation project is scheduled for 12 years at approximately 850 feet per year.							
Betasso Hydroelectric / PRF	\$ 350,000	\$ 200,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -
This project will rehabilitate the Betasso Hydroelectric / Pressure Reducing Facility including a required 10 year scheduled maintenance overhaul of the existing turbine-generator equipment, replacement of the Hydraulic Power Unit (HPU) and replacement of the transformer.							
Boulder Canyon Hydro	\$ 325,000	\$ 75,000	\$ -	\$ -	\$ -	\$ 250,000	\$ -
Boulder Canyon Hydroelectric – Maintenance and Inspection of the installed replacement unit (commercial operation started in 2013) and control systems.							





UTILITIES & GREENWAYS

Utilities - Water Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Boulder Reservoir	\$ 118,434	\$ -	\$ 118,434	\$ -	\$ -	\$ -	\$ -
Inspection of outlet pipes was performed in 2016 to assess degree of corrosion. This project funds security upgrades at the reservoir. Project is for general inspections and repairs to keep Boulder Reservoir (i.e. North and South Dams) in operational condition. Budget forecast will be updated as result of present work and ongoing annual inspections with State Engineer's Office.							
Chatauqua Storage Tank	\$ 848,546	\$ -	\$ -	\$ -	\$ -	\$ 848,546	\$ -
Inspect concrete tank bottom and line and repair as needed.							
Distribution Waterline Replacement	\$ 25,017,090	\$ 3,771,624	\$ 3,922,489	\$ 4,079,389	\$ 4,242,564	\$ 4,412,267	\$ 4,588,757
The project describes on-going annual funding for waterline reconstruction in the city's distribution system. Many of the city's existing waterlines are corroded or otherwise deteriorated and must be replaced. The city currently experiences approximately 60-80 main breaks per year and these cause unplanned outages in water service as well as disruption to vehicle travel and damage to public and private property. Although the number of main breaks is not considered excessive, the average age of the city's distribution system is over 40 years and it is anticipated that substantial funds are required to maintain a functioning water distribution system over time.							
Farmer's Ditch	\$ 136,857	\$ -	\$ -	\$ 136,857	\$ -	\$ -	\$ -
Improvements and freeboard maintenance of the ditch in order to convey full ditch capacity and particularly the city's 13.52 cfs decreed in 90CW193. Capacity vulnerabilities were highlighted in the 2013 flood and 2014/2015 rain events.							
Green Lake 2 Dam Rehabilitation	\$ 622,553	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ 547,553
This project will provide funds for the evaluation of alternatives and design of the rehabilitation of Green Lake 2 Dam. Green Lake 2 Dam needs extensive rehabilitation to allow continued full storage of water.							
Hydro Facilities Rehab Program	\$ 350,219	\$ 54,080	\$ 56,243	\$ 50,000	\$ 60,833	\$ 63,266	\$ 65,797
Hydro maintenance for all facilities. Misc minor items/repairs/upgrades not included in specific CIP budgets.							
Instream Flow Structures and Gaging	\$ 100,000	\$ 50,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Boulder will install a stream gauge on Boulder Creek downstream of the Rural Ditch headgate. The stream gage will be used to measure instream flow water that Boulder is leasing to users below the headgate.							
Kohler Hydro/PRV Facility	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
The Kohler facility is a treated water pressure reducing and hydroelectric facility located below Betasso Water Treatment Facility. This project is for a complete overhaul of the pump valves which includes: disassembly, inspection, repair and reassembly.							
Kossler Dam	\$ 450,000	\$ -	\$ -	\$ -	\$ 50,000	\$ 300,000	\$ 100,000
Kossler Dam Face Rehabilitation Project was completed in 2015. Temporary repairs were constructed to the Kossler Reservoir Inlet Structure in 2017. Both the Inlet Structure and the Outlet Structure will require full rehabilitation/replacement within 10 years and is presently scheduled for 2025. Gate analysis 2022 and replacement in 2023.							
Lakewood Pipeline	\$ 384,864	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 384,864
This project provides funding for periodic inspection and maintenance on the Lakewood Pipeline.							
Maxwell Hydro/PRV Facility	\$ 385,000	\$ 100,000	\$ 185,000	\$ 100,000	\$ -	\$ -	\$ -
The Maxwell facility is a treated water pressure reducing and hydroelectric facility located below Betasso Water Treatment Facility. This project is to completely replace the pump control valve.							
Reservoir Water Treatment Facility	\$ 600,000	\$ -	\$ 600,000	\$ -	\$ -	\$ -	\$ -
The Boulder Reservoir Water Treatment Plant is located on 63rd Avenue at Boulder Reservoir. The Filter valve actuators open and close the filter valves and some operate manually. This project will replace the filter valve actuators, filter media, filter valves, residual lagoon asphalt and upgrade backup power with automated processes.							
Silver Lake Hydroelectric/PRV	\$ 450,000	\$ 200,000	\$ -	\$ -	\$ -	\$ 250,000	\$ -
The Silver Lake Hydroelectric station is located on the raw water transmission system near the Lakewood Reservoir. This project provides ongoing enhancements of hydro-electric equipment at this location as systems age or need to be replaced. A short term Programmable Logic Controller (PLC), which monitors input devices and provides output based on custom programming controls, was completed in 2016. In 2017, an alternatives analysis for permanent PLC upgrades will be conducted. The 2019 project funds the replacement of the needles/seats.							
Skyscraper Dam	\$ 171,071	\$ -	\$ -	\$ 171,071	\$ -	\$ -	\$ -
Funding is for infrastructure evaluation and gate replacement as recommended in the Source Water Master Plan.							
Source Pumping and Hydro Rehab	\$ 1,076,133	\$ 162,240	\$ 168,730	\$ 175,478	\$ 182,498	\$ 189,798	\$ 197,389
Funding for capital maintenance for the critical source water facilities, hydroelectric, pressure reducing, and reversible pump-generator system components not identified as individual capital projects.							

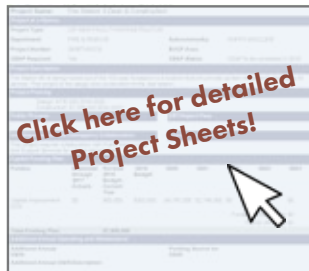




UTILITIES & GREENWAYS

Utilities - Water Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Sunshine Hydroelectric/PRV Facility	\$ 300,000	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ -	\$ -
The Sunshine facility is a treated water pressure reducing and hydroelectric facility located below Betasso Water Treatment Facility. This project will inspect and rebuild the turbine.							
Utility Billing Computer System	\$ 125,000	\$ -	\$ 125,000	\$ -	\$ -	\$ -	\$ -
The existing Utility Billing Computer System is aging and needs updates. This project will upgrade the system. The funding is split between the three Utilities Enterprise Funds (SW, WW, and WA)							
Water Treatment Equipment Repl	\$ 412,323	\$ 100,000	\$ 100,000	\$ 50,000	\$ 52,000	\$ 54,080	\$ 56,243
Equipment replacement fund for both treatment facilities. Administered by plant staff for equipment replacement outside of larger projects.							
Watershed Improvements	\$ 350,000	\$ 200,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
General Watershed improvements as recommended in the 2009 Source Water Master Plan. This project funds ongoing improvements to facilitate continued reliable operation of the watershed source water storage and delivery system. Fund augmentation needs will be assessed at the end of 2019.							
Zone 1 Transmission Pipes	\$ 3,393,874	\$ -	\$ 626,601	\$ 651,665	\$ 677,732	\$ 704,841	\$ 733,035
This project provides for the rehabilitation and improvement to the Zone 1 transmission piping of the city's water system. An extensive network of transmission piping exists, some of which is over 50 years old. It is projected this piping will require replacement or other rehabilitation. Funding is in the CIP to develop a program to inspect, prioritize and begin replacement of the transmission pipes, (pipes that are 14" diameter and larger).							
Zone 2 Transmission Pipes	\$ 4,923,524	\$ -	\$ 909,016	\$ 945,377	\$ 983,192	\$ 1,022,519	\$ 1,063,420
This project provides for the rehabilitation and improvement to the Zone 2 transmission piping of the city's water system. An extensive network of transmission piping exists, some of which is over 50 years old. It is projected this piping will require replacement or other rehabilitation. Funding is in the CIP to develop a program to inspect, prioritize and begin replacement of the transmission pipes, (pipes that are 14" diameter and larger).							
Zone 3 Transmission Pipes	\$ 2,531,914	\$ -	\$ 467,460	\$ 486,158	\$ 505,605	\$ 525,829	\$ 546,862
This project provides for the rehabilitation and improvement to the Zone 3 transmission piping of the city's water system. An extensive network of transmission piping exists, some of which is over 50 years old. It is projected this piping will require replacement or other rehabilitation. Funding is in the CIP to develop a program to inspect, prioritize and begin replacement of the transmission pipes, (pipes that are 14" diameter and larger).							
New Facility/Infrastructure Total	\$ 850,000	\$ -	\$ 160,000	\$ 160,000	\$ 210,000	\$ 160,000	\$ 160,000
Barker Dam Hydroelectric	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ -
Analysis and develop hydroelectric potential if preferred as recommended in the Source Water Master Plan, MWH, 2008/2009.							
NCWCD Conv - Boulder Feeder Canal	\$ -	\$ -	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000
NCWCD Conv - Boulder Feeder Canal point source drainage inflow improvements on a priority basis.							





UTILITIES & GREENWAYS

Utilities - Wastewater Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 78,400,300	\$ 10,312,767	\$ 7,979,469	\$ 7,532,047	\$ 37,222,961	\$ 6,172,247	\$ 9,180,809

Capital Enhancement Total	\$ 26,665,763	\$ 1,377,053	\$ 1,146,070	\$ 1,838,463	\$ 18,784,634	\$ 363,662	\$ 3,155,881
Wastewater Treatment Facility Pumps	\$ 300,000	\$ 75,000	\$ 75,000	\$ -	\$ 150,000	\$ -	\$ -

The existing pumps at the 75th Street Wastewater Treatment Facility require rehabilitation. This project will fund the upgrade of those pumps on a recurring basis. The highest priority assets will be funded each cycle.

WWTF Activated Sludge	\$ 420,716	\$ 189,798	\$ -	\$ -	\$ -	\$ -	\$ 230,918
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This project will fund the scheduled rehabilitation of the 75th Street Wastewater Treatment Facility's mechanical aeration system, which is a critical system supporting the microbiological process. Specifically, this money is for a preventative maintenance service through a qualified third-party. The typical agreements are 5-years and we pay in advance for annual services.

WWTF Instrumentation/Control	\$ 4,381,552	\$ 1,012,255	\$ 151,838	\$ -	\$ -	\$ 292,496	\$ 2,924,963
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This project will fund the rehabilitation and/or replacement of instrumentation & control (I&C) facilities at the 75th Street Wastewater Treatment Facility. These recommendations are based on the 2013 Process Automation System (PAS) Strategic Plan. The PAS Strategic Plan identified \$6,000,000 worth of I&C improvements to be completed over 10 years.

WWTF Permit Improvements	\$ 2,928,861	\$ 100,000	\$ 919,232	\$ 1,838,463	\$ -	\$ 71,166	\$ -
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The 75th Street Wastewater Treatment Facility requires improvements and new facilities as required by Federal and State regulation to improve effluent quality, as identified by the State of Colorado Discharge Permit System (CDPS) Permit. This project addresses necessary improvements to remove phosphorus.

WWTF Permit Improvements - Proj. Bo	\$ 18,634,634	\$ -	\$ -	\$ -	\$ 18,634,634	\$ -	\$ -
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The 75th Street Wastewater Treatment Facility requires improvements and new facilities as required by Federal and State regulation to improve effluent quality, as identified by the State of Colorado Discharge Permit System (CDPS) Permit. This project addresses necessary improvements to remove phosphorus.

Capital Maintenance Total	\$ 51,734,537	\$ 8,935,714	\$ 6,833,399	\$ 5,693,584	\$ 18,438,327	\$ 5,808,585	\$ 6,024,928
Arapahoe Trunk Sewer Replacement	\$ 12,605,000	\$ -	\$ -	\$ -	\$ 12,605,000	\$ -	\$ -

Replacement and upsizing of hydraulically under capacity trunk sewers in Arapahoe and Foothills Parkway.

Collection System Monitoring	\$ 900,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
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This project provides funds for monitoring of the City's wastewater collection system.

Condition Assessment Program	\$ 5,043,683	\$ 674,918	\$ 701,915	\$ 729,992	\$ 759,191	\$ 1,067,484	\$ 1,110,183
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The Wastewater Utility Condition Assessment Program is intended to provide an ongoing comprehensive assessment of the city's sanitary sewer collection system. There are approximately 360 miles of sanitary sewer pipe in the collection system.

Sanitary Sewer Manhole Rehab	\$ 3,290,424	\$ 243,331	\$ 253,064	\$ 657,966	\$ 684,285	\$ 711,656	\$ 740,122
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This project provides for the rehabilitation and improvement to the existing wastewater manholes that are part of the city's sewer system. The program is funded at \$200,000 per year (2018) escalated by an inflation index for future years. The asset condition assessment shows the need for increased funding to meet system needs. Escalation in program funds begins in 2021.

Sanitary Sewer Rehabilitation	\$ 20,778,573	\$ 3,302,465	\$ 3,226,563	\$ 3,355,626	\$ 3,489,851	\$ 3,629,445	\$ 3,774,623
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This project provides for the rehabilitation and improvement to the existing collector sewer piping of the city's wastewater collection system. The program is funded at approximately \$2,000,000 per year (2015) escalated at 4% annually. The 2018 program is anticipated to focus on the University Hill area and surrounding neighborhoods.

Utility Billing Computer System	\$ 65,000	\$ -	\$ 65,000	\$ -	\$ -	\$ -	\$ -
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The existing Utility Billing Computer System is outdated and needs updated. This project will update the system.





UTILITIES & GREENWAYS

Utilities - Wastewater Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
WWTF Cogeneration	\$ 4,000,000	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -

Traditionally, this project is to provide funding for major overhauls of the two cogeneration (electrical power) engines at the 75th Street Wastewater Treatment Facility. Engine overhauls include repair and rehabilitation efforts every 3 to 4 years, and vary in scope and fee based on engine condition. The funding in 2019 is to implement a new beneficial end-use for biogas, moving away from cogeneration and implementing a renewable natural gas (RNG) solution for vehicle fuel. The new funding is for a gas treatment system to clean the biogas to XCEL pipeline standards, measure and monitor, and then deliver to an offsite end-user via local pipeline.

WWTF Digester Cleaning	\$ 136,857	\$ -	\$ 136,857	\$ -	\$ -	\$ -	\$ -
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The 75th Street Wastewater Treatment Facility has a primary and secondary digester. This project is to provide cleaning on a 10-year cycle. The last time the primary was cleaned was 2012, and the secondary was cleaned in 2014.

WWTF Digester Complex	\$ 2,200,000	\$ 200,000	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -
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This project is to replace the Wastewater Treatment Facility secondary digester floating cover. The cover has tipped and failed on several occasions in recent years taking the system offline and limiting its ability to handle gas and interrupting wastewater treatment.

WWTF Primary Clarifiers	\$ 665,000	\$ 115,000	\$ -	\$ 50,000	\$ 500,000	\$ -	\$ -
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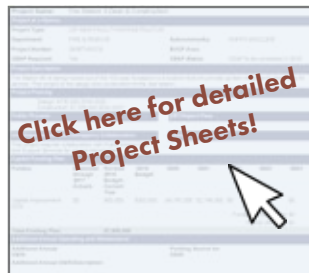
The primary clarifiers are concrete circular settling tanks with rotating steel mechanisms to separate solids from the water. They are located after the headworks and before the aeration basins (biological process). This project will replace the rotating drive mechanisms(\$3M per clarifier). This is a high priority asset management project.

WWTF Rehabilitation	\$ 1,500,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
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The Wastewater Utility Asset Management Planning Tool identified miscellaneous rehabilitation projects not identified in master plan documents. This funding could be for one project, or several smaller projects.

WWTF Secondary Clarifiers	\$ 550,000	\$ -	\$ 50,000	\$ 500,000	\$ -	\$ -	\$ -
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The secondary clarifiers are essential unit processes as part of the overall treatment system at the 75th St. WWTF. Similar to the primary clarifiers, the internal componentry is submerged in wastewater and needs repair and rehabilitation periodically, and eventual replacement. This project is to repair the internal mechanism to provide full-utilization of the asset.





UTILITIES & GREENWAYS

Utilities - Stormwater Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 87,075,386	\$ 3,054,308	\$ 35,858,357	\$ 10,299,738	\$ 4,554,505	\$ 28,867,720	\$ 4,440,758

Capital Enhancement Total	\$ 41,237,838	\$ 1,252,308	\$ 2,606,657	\$ 7,759,521	\$ 1,914,279	\$ 26,124,286	\$ 1,580,787
2017 MP -Wonderland Creek 1 Stm Sew	\$ 386,896	\$ -	\$ -	\$ 386,896	\$ -	\$ -	\$ -

The storm sewer system in Broadway between Fourmile Canyon Creek and Wonderland Creek requires improvements. This project expands the storm sewer system in this area to provide a sufficient level of service.

Fourmile Canyon Creek CCS	\$ 3,500,000	\$ -	\$ 1,314,000	\$ 1,752,000	\$ 434,000	\$ -	\$ -
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Construction of a multi-use path connection between 19th Street and Broadway and the replacement of two structurally deficient bridges at Violet Avenue and Upland Avenue with bicycle/pedestrian underpasses that also serve a flood benefit. The project provides a missing link in the path system, with safer access to Crest View Elementary School for pedestrians and bicyclists. It also provides improved vehicular access on 19th Street, which is an emergency access route, during a major storm event. Capital tax funding is for non-flood improvements. This project's service area affects approximately 21,000 residents.

Greenways Program - Flood fund	\$ 585,000	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500
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This funding will provide Utilities contributions to the overall Greenways Program. Funding will be opportunistic and prioritized with other funding in the Greenways CIP. These funds will be combined with funding from the Transportation Fund. This project is for an ongoing funding program. For more information, see <https://bouldercolorado.gov/water/greenways-program>

Greenways Program-Lottery Fund	\$ 906,402	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067
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The funding will provide Lottery funds contributions to the overall greenways program. Funding will be opportunistic and prioritized with the other funding in the Greenways CIP. These funds will be combined with funding from the Transportation and Utilities Fund. This project is for an ongoing funding program. For more information, see <https://bouldercolorado.gov/water/greenways-program>

Local Drainage Improvements	\$ 5,866,374	\$ 821,241	\$ 854,090	\$ 986,949	\$ 1,026,427	\$ 1,067,484	\$ 1,110,183
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This capital project provides funds to improve local drainage problems which are small enough to be outside of the scope of a master planning effort. Most work funded by this program is intended to address system deficiencies highlighted through customer complaints. Funding is also used to supplement the storm sewer rehabilitation program.

Stormwater Quality Improvements	\$ 1,210,709	\$ 182,500	\$ 190,000	\$ 197,390	\$ 205,285	\$ 213,497	\$ 222,037
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This program will fund stormwater quality projects as identified in the Stormwater Master Plan and the stormwater quality engineering staff to improve water quality in Boulder Creek and its tributaries. This funding can be used for multiple efforts such as infrastructure maintenance, installation and planning studies.

SW MGMT - Bear Canyon Creek	\$ 324,846	\$ -	\$ -	\$ 324,846	\$ -	\$ -	\$ -
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The storm sewer system at Ithaca & Wildwood creates a hydraulic bottleneck and requires improvements. This project straightens out the storm sewer to outfall directly into the drainageway, expands the level of service and reduces ponding in the streets.

SW MGMT - Middle Boulder Creek	\$ 3,862,873	\$ -	\$ -	\$ 3,862,873	\$ -	\$ -	\$ -
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The storm sewer system in Downtown Boulder along Pearl Street from 16th Street to 21st Street requires improvements. The master plan project expands the storm sewer system in this area to provide a sufficient level of service.

Upper Goose Crk Storm/Flood Project	\$ 24,594,738	\$ -	\$ -	\$ -	\$ -	\$ 24,594,738	\$ -
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The Upper Goose Creek area remains a high priority for both major drainageway improvements and storm sewer improvements. The Upper Goose major drainageway (open channel) and the Upper Goose Creek storm sewer (pipes) funding has been combined into a single project to address both components. The 2007 and 2017 Storm water Master Plans identified this project as the highest storm water system improvement priority. This project will fund the construction of storm sewer improvements in the Upper Goose Creek drainage basin located between 4th and Folsom Streets. The scope of work includes upsizing existing storm sewers from 9th St to 19th St and expanding the sewer system into residential areas west of 9th St. The project also includes open channel improvements to accommodate 5yr flood flows in Goose Creek from 19th St to Folsom St.





UTILITIES & GREENWAYS

Utilities - Stormwater Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Maintenance Total	\$ 10,897,758	\$ 1,169,000	\$ 1,850,700	\$ 1,855,932	\$ 1,928,570	\$ 2,003,312	\$ 2,090,244
Drainageway Maintenance/Enhancement	\$ 3,310,000	\$ 500,000	\$ 520,000	\$ 540,000	\$ 560,000	\$ 580,000	\$ 610,000

The Drainageway Maintenance/Enhancement fund is intended to provide for larger maintenance related projects along the city's 15 major drainageways. This funding will address ongoing sediment removal efforts as well as large scale vegetation removal along the drainageways including efforts relating to the city's Emerald Ash Bore (EAB) removal program. This work will be performed by qualified private contractors.

Storm Sewer Rehabilitation	\$ 3,730,729	\$ 304,000	\$ 632,700	\$ 657,966	\$ 684,285	\$ 711,656	\$ 740,122
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The program provides funds for the rehabilitation or replacement of existing storm sewers that have reached the end of their useful life.

Transportation Coordination	\$ 3,792,029	\$ 365,000	\$ 633,000	\$ 657,966	\$ 684,285	\$ 711,656	\$ 740,122
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This program will fund the reconstruction of existing storm sewers, the construction of new storm sewers and water quality improvements as part of on-going Transportation Division improvement projects. This project is for an ongoing funding program.

Utility Billing Computer System	\$ 65,000	\$ -	\$ 65,000	\$ -	\$ -	\$ -	\$ -
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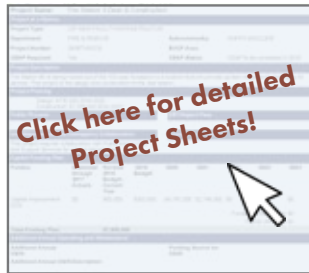
The existing Utility Billing Computer System is outdated and requires an upgrade. This project is for the upgrade of the existing system.

Land Acquisition Total	\$ 4,198,790	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656	\$ 740,122	\$ 769,727
Preflood Property Acquisition	\$ 4,198,790	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656	\$ 740,122	\$ 769,727

This project provides on-going funding for the purchase of properties from willing sellers in areas prone to flooding especially the city's high hazard regulatory area. The city periodically updates its flood mapping to reflect changing conditions and improvements in flood modeling. The highest risk properties are identified and prioritized for purchase, based on updated mapping for each of the drainageways. The project is for an ongoing funding program. Funding has been escalated to reflect inflation.

New Facility/Infrastructure Total	\$ 30,741,000	\$ -	\$ 30,741,000	\$ -	\$ -	\$ -	\$ -
South Boulder Creek - Bond Proceeds	\$ 30,741,000	\$ -	\$ 30,741,000	\$ -	\$ -	\$ -	\$ -

This project is to mitigate flooding in the West Valley from South Boulder Creek based on recommendations in the 2015 South Boulder Creek Flood Mitigation Plan. This project eliminates overtopping of US36 during a 100-year storm event and greatly reduces downstream flood risks.





CITYWIDE



OVERVIEW OF CITYWIDE CATEGORY

During the renewal of the Community, Culture, and Safety tax and the 2018 Budget process, discussions with council highlighted that the General Fund CIP has been limited, generally to Facilities & Asset Management-related projects, and supplemented through voter-approved capital funding initiatives. With many unfunded capital projects residing in the General Fund, the 2018 Budget, for the first time, included \$3.65 million to begin phase one of a formal Capital Improvement Program for the General Fund.

General Fund capital dollars are included in the 2019-2024 CIP and can be found both within the corresponding departments or in this Citywide department section or projects that are not directly associated with a single department. Similarly, this Citywide section provides information on projects within the Community, Culture, and Safety tax that are associated with the various nonprofit projects throughout the city.

CURRENT FOCUS FOR CAPITAL PLANNING AND PROJECTS IN THE 2019 CAPITAL BUDGET

The goals of the General Fund CIP are to provide a sustainable funding source for essential capital needs; improve resiliency of essential services; and save the city money in the long run by not deferring necessary improvements.





CITYWIDE

FUNDING OVERVIEW

The city's General Fund accounts for revenues and expenditures used to carry out basic governmental activities of the city such as public safety, human services, legal services, administrative services, and others not required to be accounted for in another fund.

The major sources of revenue in this fund come from sales and use taxes as well as property taxes. Those two funding sources comprise roughly two thirds of the total revenue in the General Fund.

The 2017 Community, Culture, and Safety tax is a temporary 3 cent sales tax that will provide funding for several city and nonprofit projects.

RECENT ACCOMPLISHMENTS

- **Public Safety Rescue Vehicle:** This vehicle is 37 years old, well past its useful life cycle and was the top priority for the public safety team during the renewal of the Community, Culture, and Safety tax but was ultimately not part of the final project package. The rescue vehicle is used to safely evacuate people from hazardous or violent situations and move officers into dangerous areas.
- **Hogan Pancost Land Purchase:** The Hogan Pancost property is a 22.2-acre parcel in area II contiguous to South East Boulder. After several attempts by developers to annex and develop the property, council decided that it would be in the best interest of the

community for the city to purchase the land. Having control of the property will allow for a pause to consider the most appropriate uses. It will also allow time to consider the effects of the South Boulder Creek flood mitigation study and guarantee that the neighboring community has a voice in what ultimately happens on the property.

- **Boulder Reservoir South Shore Enhancements:** The Boulder Reservoir is a destination site with over 300,000 visitors per year. The 2018 Capital Improvement Program dedicated \$3.4M to a new bathhouse, administration office, concession area and beach enhancements including a new children's play area. Related to increased scope during public involvement and land use review processes, the cost of the project has increased and requires additional funding to deliver a successful project to the community.
- **Data Center Redundancy:** Currently the city has over 400 data and storage servers distributed between two data center facilities – Public Safety Building Data Center (PSBDC) and the shared facility at the Boulder County Communication Center (BCCC). While this configuration protects against a total city shut down, it does not have the needed infrastructure to ensure all critical city computing services remain operational should we experience a data center outage due to power loss, equipment failure or natural/man-made disasters (fire, flooding, etc.). In 2016-17, we had 4 unplanned outages due to ineffective/unreliable HVAC equipment in the Public Safety building. This budget request is for funding to improve the redundancy, fault tolerance and availability of critical IT systems





CITYWIDE

that reside at the two city data centers. City operations have become extremely dependent on the city's computing infrastructure. Any outage impacting the city's data centers or critical individual servers can have a significant and a potentially lengthy impact on city data, finances and services.

OPERATING AND MAINTENANCE IMPACTS

Operating costs will be included as appropriate. Current Citywide projects do not have associated operating and maintenance impacts.

UNFUNDED PROJECTS AND EMERGING NEEDS

Many of the city's unfunded needs reside in the General Fund and include facility backlogs, emerging technology needs, and large, unfunded facility replacements. This goal of this funding source is to address the backlog, critical infrastructure and technology needs while also recognizing that additional funding sources will be needed to accomplish larger, high dollar projects such as new facilities.

CEAP PROJECTS

N/A

BOARD ACTION

The General Fund comprises multiple departments, some of which have boards that will be engaged in the CIP process, as appropriate.

2019 CAPITAL PROJECTS

Hogan Pancost Debt Service Payments

Continue funding the city's commitment to a 5 year debt payment.

Broadband Backbone COPs

Ongoing costs related to the Certificates of Participation for the construction of a fiber backbone in support of the city's broadband effort. The outcome of the project will be a roughly 90+ mile redundant fiber backbone throughout Boulder to support connectivity for future broadband and smart city efforts.

Support for Non Profits:

- Boulder Museum of Contemporary Art
- KGNU Radio
- Meals on Wheels
- Studio Arts





CITYWIDE

2019 - 2024 CAPITAL IMPROVEMENT PLAN

Citywide Projects

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 32,097,200	\$ 3,447,360	\$ 4,744,720	\$ 5,292,080	\$ 5,839,440	\$ 6,386,800	\$ 6,386,800
Capital Maintenance Total	\$ 22,014,032	\$ 1,606,656	\$ 2,904,016	\$ 3,451,376	\$ 3,998,736	\$ 4,866,448	\$ 5,186,800
General Fund Capital	\$ 22,014,032	\$ 1,606,656	\$ 2,904,016	\$ 3,451,376	\$ 3,998,736	\$ 4,866,448	\$ 5,186,800

General Fund Capital dollars dedicated to providing a sustainable funding source for essential capital needs; improve resiliency of essential services; and save the city money in the long run by not deferring necessary improvements. Specific projects will be identified during the annual CIP process.

Land Acquisition	\$ 2,883,168	\$ 640,704	\$ 640,704	\$ 640,704	\$ 640,704	\$ 320,352	\$ -
Hogan Pancost Land Purchase	\$ 2,883,168	\$ 640,704	\$ 640,704	\$ 640,704	\$ 640,704	\$ 320,352	\$ -

The Hogan Pancost property is a 22.2-acre parcel in area II contiguous to South East Boulder. After several attempts by developers to annex and develop the property, council decided that it would be in the best interest of the community for the city to purchase the land. Having control of the property will allow for a pause to consider the most appropriate uses. It will remove the incentive to maximize the return on investment. It will also allow time to consider the effects of the South Boulder Creek flood mitigation study and guarantee that the neighboring community has a voice in what ultimately happens on the property.

New Facility/Infrastructure Total	\$ 7,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000
Broadband Fiber Backbone	\$ 7,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000

Ongoing costs related to the Certificates of Participation for the construction of a fiber backbone in support of the city's broadband effort. The outcome of the project will be a roughly 90+ mile redundant fiber backbone throughout Boulder to support connectivity for future broadband and smart city efforts.





CITYWIDE

Community, Culture, & Safety Tax Projects (for projects not listed in other departments)

	Estimated Total Cost	2019 Approved	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected
Capital Program Total	\$ 5,750,000	\$ 3,250,000	\$ 1,700,000	\$ 800,000	\$ -	\$ -	\$ -
Capital Enhancement Total	\$ 3,650,000	\$ 1,150,000	\$ 1,700,000	\$ 800,000	\$ -	\$ -	\$ -
CCS Agreements - BMOCA	\$ 1,000,000	\$ 250,000	\$ 250,000	\$ 500,000	\$ -	\$ -	\$ -
Location: 1750 13th St. BMOCA will renovate the current facility, which is necessary for the organization to sustain its current levels of growth and provide the best service for the community.							
CCS Agreements - KGNU Radio	\$ 1,250,000	\$ 900,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -
Location: 4700 Walnut St. KGNU will expand and modernize the current facility into a 21st century, energy efficient, permanent media training and multicultural Community Media Center.							
CCS Agreements - Resource Central	\$ 1,400,000	\$ -	\$ 1,100,000	\$ 300,000	\$ -	\$ -	\$ -
Location: 6400 Arapahoe Ave. Zero Waste Community Center will improve facilities to expand recycling and reuse efforts, including a covered retail area, warehouse with offices, a lumber de-nailing area and improved drop off areas.							
New Facility/Infrastructure Total	\$ 2,100,000	\$ 2,100,000	\$ -	\$ -	\$ -	\$ -	\$ -
CCS Agreements - Meals on Wheels	\$ 850,000	\$ 850,000	\$ -	\$ -	\$ -	\$ -	\$ -
Location: 0 Diagonal. The new facility for Meals on Wheels of Boulder will expand meal delivery services and increase the capacity to offer more on-site classes.							
CCS Agreements - Studio Arts	\$ 1,250,000	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -	\$ -
Location: 0 Diagonal. The new facility for community education in the studio arts will include ceramics, woodworking, printmaking and additional flexible studio space for glass, fiber, and metal.							



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4 | COMMUNITY & ENVIRONMENTAL ASSESSMENT PROCESS (CEAP)

Project planning and design for major capital projects takes a project outlined in a master plan and provides more detailed assessment to determine location, function and design alternatives and preferred approaches. The process for review and approval of individual projects is identified in the annual CIP and budget approval process. At this time, various processes may be identified for a specific project.

- **Concept Plan and Site Review:** Concept Plans and Site Plans are reviewed by the interdepartmental staff Development Review Committee, departmental Advisory Boards, Planning Board and City Council (call-up option).
- **Community and Environmental Assessment Process (CEAP):** The CEAP provides a framework for balanced and thoughtful consideration of environmental and social issues in the preliminary planning and design of capital projects. It also provides a forum for public discussion of broad level project issues relative to master plans and overall community goals. It is a tool to aid in the development and refinement of project design and impact mitigation options.
- **Project-Specific Community Process and Design:** Many projects are not required to go through concept and site review and would not benefit from a CEAP process. These typically have a project-specific design and public process to efficiently and appropriately identify community needs, concerns, and preferences. Many projects have been assessed through facility studies, area or facility planning processes, mitigation plans or other studies. The processes are collaborative with multiple city and/or county departments.

PROJECTS RECOMMENDED FOR A CEAP

The [Appendix](#) to Title 2 of the Boulder Revised Code instructs that major capital improvement projects should be handled in accordance with the City Plans and Projects Handbook, dated November 2007. As such, a list of projects identified to undergo a CEAP is provided with the annual capital budget.

CEAP reviews are prepared when projects are in the site location and facility design phase. The primary purpose of the CEAP is to encourage the consideration of potential social and environmental impacts in planning and decision making and, ultimately, to arrive at actions that achieve the objectives of the project with the fewest impacts. The intent of the CEAP is to make project planning more efficient by considering issues in advance of implementation.

CEAP findings are submitted by departments to their respective advisory board for review as part of CIP project approval. For those departments that do not have an advisory board, the Planning Board is responsible for reviewing CEAP findings as part of project approval. Council has the opportunity to call up projects for their review and approval. (For those departments that do not have an advisory board, Planning Board is responsible for reviewing CEAP findings as part of project approval.) The following capital improvement projects proposed for funding in the 2019-2024 CIP are recommended to complete a Community and Environmental Assessment Process (CEAP).





COMMUNITY & ENVIRONMENTAL ASSESSMENT PROCESS (CEAP)

OPEN SPACE & MOUNTAIN PARKS

Four Mile Creek: The Foothills Trail crossing of Four Mile Creek near the Foothills Trailhead changed drastically during the 2013 Flood. This project aims to install an ADA accessible crossing and to rehab the creek bed up and downstream from the bridge location.

TRANSPORTATION

19th Street Complete Streets (Norwood to Sumac): 19th Street is an important multi-modal travel corridor in North Boulder. This project involves the design and construction of sidewalk, curb and gutter improvements along the west and east sides of 19th Street from Norwood Avenue to Sumac Avenue.

UTILITIES & GREENWAYS

Upper Goose Creek Storm/ Flood: The Upper Goose Creek area remains a high priority for both major drainageway improvements and storm sewer improvements. The Upper Goose major drainageway (open channel) and the Upper Goose Creek storm sewer (pipes) funding has been combined into a single project to address both components. The 2007 and 2017 Storm water Master Plans identified this project as the highest storm water system improvement priority. This project will fund the construction of storm sewer improvements in the Upper Goose Creek drainage basin located between 4th and Folsom Streets. The scope of work includes upsizing existing storm sewers from 9th St to 19th St and expanding the sewer system into residential areas west of 9th St. The project also includes open channel improvements to accommodate 5yr flood flows in Goose Creek from 19th St to Folsom St.

Witemyer Ponds: This project consists of multiple reservoirs planned for potential use for city water exchanges. An alternatives study and CEAP are planned for 2019 with design and construction for 2020/2021.

Boulder Creek Flood Mitigation: As specific projects and their scope are identified the need for a CEAP will be evaluated in the city's annual process.

Two Mile Creek Flood Mitigation: As specific projects and their scope are identified the need for a CEAP will be evaluated in the city's annual process.

