



DRAFT 2017-2022
**CAPITAL IMPROVEMENT
PROGRAM**

CITY OF BOULDER, COLORADO



Draft 2017-2022 Capital Improvement Program



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HOW TO USE THIS DOCUMENT

The City of Boulder’s 2017–2022 Capital Improvement Program (CIP) contains information on how the city plans to invest available resources into key infrastructure and facilities between 2017 and 2022. This document contains: planned project funding summaries organized by department, project type, and fund; detail sheets for every project and program included in the plan; links to maps illustrating the location of projects throughout the city; and narratives describing the rationale behind project prioritization.

Document Organization

The 2017–2022 CIP has five main parts:

- Introduction
- Funding Summaries
- Special Highlights
- Department Projects
- Appendices

Introduction

The Introduction section provides an overview of the 2017–2022 CIP, describes the CIP development process, gives highlights of the CIP, and summarizes factors that influenced the projects included in the plan.

Funding Summaries

The Funding Summaries section contains analysis of how the 2017–2022 CIP allocates dollars among city departments, project types, and funds. Full financial detail can be found in the tables of this section.

Special Highlights

The Special Highlights sections include information on a major area of concerted effort related to capital investment: implementation of Capital Improvement Bond projects. The capital bond section contains a narrative describing associated projects and other highlights. There are also highlights of the effects of the following on the CIP: the September 2013 Flood, the Community, Culture and Safety project, and the Pavement Management Program. .

Department Projects

The department sections each contain highlights of the department’s capital projects and factors that influenced project selection. Following the narrative, the department sections contain department funding summaries, links to maps that identify the locations of department projects, and project sheets for each of the department’s CIP projects.

Appendices

The 2017–2022 CIP contains two appendices. The first appendix contains information on

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unfunded capital projects, and the second contains a list of CEAP projects.

Data Limitations

The 2017–2022 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).

Future versions of this CIP will migrate expenditure information into all sections of the document as it becomes available in the city’s financial systems.

How to Read Project Financial Data

The Capital Funding Plan section of the project sheets consists of three tables:

- Estimated Total Cost
- Capital Funding Plan
- Unfunded Amount

Figure 0–1 shows an example of this table. The *Estimated Total Cost* table shows the total estimated cost of completing the project. If a project sheet does not have a total cost, then the sheet is for an ongoing program, and the total cost field has been left blank.

For most projects in the CIP, the *Capital Funding Plan* table shows total allocated dollars to the project prior to 2017 and for each year between 2017 through 2022. However, on-going programs, because they have typically received funding for many years before 2017, do not have information about allocated funding prior to 2017. Ongoing programs generally allocate a set amount of funding per year on a continuing basis. Therefore, programs also do not have total cost information. Both blank fields focus the CIP on the coming six years of planned improvements for each on-going program, and by doing so, the CIP does not expect the on-going program to account for prior improvements or future improvements well beyond the CIP’s planning horizon that ends in 2017.

Future Unfunded shows any amount of the *Total Funding Plan* that does not have a funding source. *Funding to Completion* shows any amount outside of the Total Funding Plan that is outside of the six-year CIP window (2017–2022). As historical data for these projects get collected over time, the aforementioned sections will be populated.

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Figure 0–1: Sample Capital Funding Plan Table

Capital Funding Plan							
Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	154932.54	\$400,000	\$500,000	\$500,000	\$400,000	\$400,000	\$300,000
					Funding to Completion \$0		
					Future Unfunded \$0		
Total Funding Plan:	\$2,654,933						

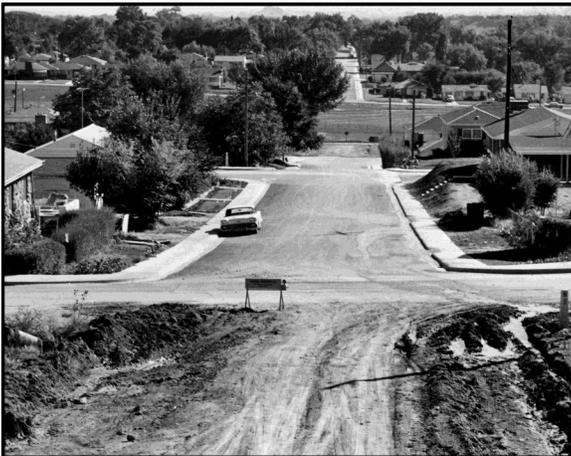
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Capital Planning and 2017 – 2022 CIP Summary

The City of Boulder’s Capital Improvements Program (CIP) is a comprehensive, 6–year plan for maintaining and enhancing public infrastructure by correcting current facility deficiencies and constructing new service–delivery 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 has made significant investments to provide its current level of municipal services. The city owns and maintains 385 buildings and structures, 1,800 acres of parkland, 45,630 acres of Open Space and Mountain Parks (OSMP), 305 centerline miles of streets, 159 centerline miles of bike facilities, 79 underpasses, two water treatment facilities, one wastewater treatment facility

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. The city continues to look for ways to leverage its funding, through federal, state, and local grants and reimbursements, to maximize funding for CIP projects.



Curb and road construction at the 500 block of Cedar Avenue, 1956. Photo courtesy the Carnegie Branch Library for Local History, Boulder Historical Society Collection.

The CIP development process prioritizes the city’s numerous needs spread across its 17 different departments, bearing in mind the limits of each funding source, progress on ongoing CIP projects, and funding commitments made by prior CIPs. To create a citywide

understanding of which projects are chosen for inclusion in the CIP, the city developed CIP Guiding Principles (see figure 1–1 below) to shape capital planning decisions made throughout the CIP process. The CIP Guiding Principles also ensure individual department priorities for CIP funding are aligned with city goals.



The 2017–2022 CIP includes funding for \$454.4 million for 171 projects. 107 projects are recommended for funding in 2017, totaling \$61.2 million. The recommended 2017 allocations are \$13.2 million lower than approved 2016 allocations (\$74.4 million). The primary reason for this year over year decrease is the inclusion in 2016 of a \$25 million project at the Betasso Water Treatment Facility. Proposed 2017–2022 allocations are \$46.9 million higher than 2016–2021 allocations (\$407.5 million) presented in the 2016–2021 CIP. The primary reason for the increase in the full five year 2017–2022 period is additional major projects in Utilities and Transportation. These projects are partially funded from increased revenues provided through tax initiatives and new Transportation Improvement Program (TIP) federal funding (Transportation), and planned rate increases (Utilities), and are key investments to maintain existing infrastructure.

To note, the 2011 Capital Improvement Bond proceeds are not included in these totals because allocations for the bond occurred in 2012, and the Community, Culture and Safety Tax proceeds are not included in these totals because allocations are occurring through budget adjustments. Information of both of these voter approved capital initiatives is included later in this document in special highlight sections.

Following the 2013 Flood, assessments in the city’s water, wastewater and stormwater/flood management system has informed key capital investments needed to reduce the city’s vulnerabilities and improve resilience. During the 2015 budget process, there were extensive discussions related to the Utilities CIP and rates at numerous public meetings, including WRAB and council meetings and the result was support for an accelerated plan of system replacement and enhancements. While current proposed rate increases are unchanged from last year, the accelerated plan continues to be reflected in the 2017 – 2022 CIP. As a part of the CIP process, a citywide asset assessment effort is underway and will continue over several years. As the results of these assessments come in, the information will help the city better understand its capital needs relating to existing facilities and will inform the CIP. Some of this is already reflected in the 2017–2022 CIP. Additional asset assessment information is included later in this document in a special highlight section.

The city regularly sets aside money in its CIP to save for future projects. This important budget practice leads to better planning by allowing the city to pay for higher dollar projects over time rather than requiring the city to find funding in a single budget year.



Figure 1–1 lists the CIP Guiding Principles. During this year’s CIP process, the Guiding Principles were reviewed and updated to better reflect the Sustainability Framework as the overarching guide to align capital investment with community priorities, and to be consistent with city financial policies. The purpose, intent and use of the Guiding Principles remain unchanged.

Figure 1–1: 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:

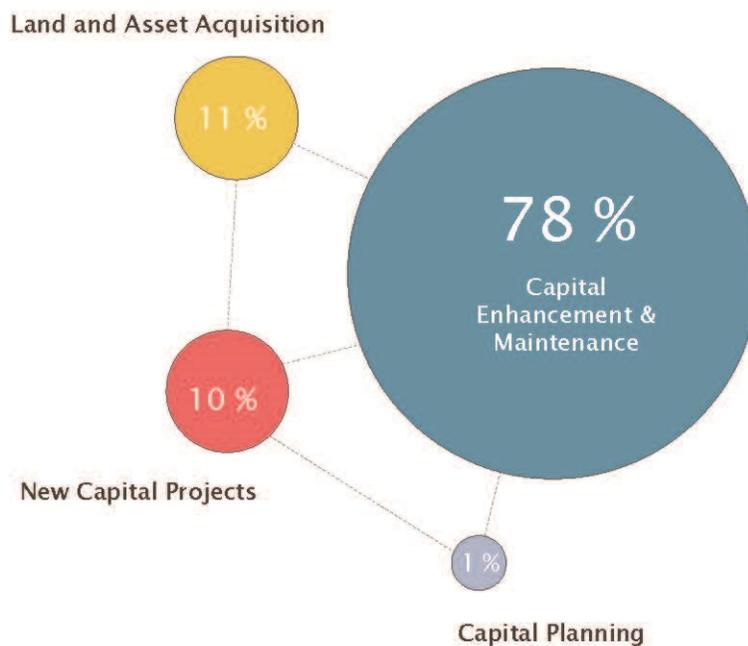
- 1. Capital Improvement Programs should be consistent with and implement Council–accepted master plans and strategic plans.**
- 2. Capital Improvements should achieve Sustainability Framework Goals:**
 - Accessible and Connected Community: improve and maintain mobility systems, infrastructure networks, and access to information
 - Economically Vital Community: provide infrastructure and amenities supporting employers and economic diversity
 - Environmentally Sustainable Community: promote natural resource and energy conservation; employ sustainable construction practices; and utilize renewable resources
 - Healthy and Socially Thriving Community: provide recreational, cultural, educational, and social opportunities that support physical and mental well–being; and facilitate inclusive community engagement
 - Livable Community: provide safe and well–maintained public infrastructure and services and enhance neighborhood livability
 - Safe Community: ensure timely response to emergencies and natural disasters; foster a climate of safety, maintaining and improving public safety and security
 - Good Governance: utilize effective and efficient use of public funds, maintaining a strong fiscal foundation; leverage external investments; promote community partnerships; and promote stewardship of human, information and physical assets.
- 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 city–wide “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 investments demonstrated by measurable cost/benefit analyses and coordination of projects across departments within and across funds.**



The city is spending the majority, over 77 percent, of its 2017 capital funds on capital maintenance and enhancement of its existing assets (See Figure 1-2). Capital enhancements involve upgrades to existing facilities, such as replacement of irrigation systems with updated 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.

FIGURE 1-2: 2017 CIP Projects by Category



CIP Highlights

The city anticipates completing a significant number of Capital Projects in 2016 and 2017. These projects benefit the City of Boulder, its residents and visitors by maintaining key infrastructure and functionality, maintaining and improving the transportation network, providing greater safety, maintaining and improving recreational facilities and natural lands, and maximizing the use of technology for greater efficiency and better service delivery. A few examples of these are listed below. Additional details on 2016 accomplishments and highlights of the 2017-2022 CIP are noted in each of the department overviews.

[*Please note that Community, Culture and Safety Tax projects are included in this list.]



2016 Accomplishments (see Department Overviews for additional details and highlights)

- Repainted twelve Boulder history panels along the Pearl Street Mall
- Installed residential pedestrian corridor lighting and on street tree irrigation on the Hill*
- Completed radio infrastructure assessment
- Replaced fire station alerting system
- Replaced Police records management system
- Completed renovation at the Meadows branch library
- Completed Baseline underpass construction and associated multi-use path and sidewalk improvements
- Completed North Trail Study Area (NTSA) Plan
- Completed North Boulder Recreation Center aquatics facility upgrades and enhancements
- Continued implementing Emerald Ash Borer response plan
- Began significant Betasso Water Treatment Facility improvements.

2017 and Beyond Planning and Construction (see Department Overviews for additional details and highlights)

- Replacement and implementations of integrated permits, licensing and land records system
- Ongoing network hardware and software replacement
- Completion of OSMP flood-related resource recovery work
- OSMP Visitor Master Plan update (expanded to be a full Open Space Master Plan)
- Begin NTSA implementation
- Completion of multiple agricultural projects called for in the Agricultural Management Plan
- Scott Carpenter Aquatics center upgrades, including facilities replacement
- Boulder Reservoir bathhouse and administration building renovation and replacement
- Multiple Neighborhood park improvements and renovations Canyon Corridor study in conjunction with Civic Area revitalization
- 30th/Colorado Corridor study
- 19th Sidewalk project – complete street improvements
- Railroad crossing Quiet Zone improvements
- Completion of Betasso Water Treatment Facility improvements
- Construction of Carter Lake Pipeline
- Realignment of main sanitary sewer interceptors
- Flood mitigation and path improvements along Fourmile Canyon Creek
- South Boulder Creek Flood Mitigation Phase I



- Major renovation of the Brenton Building on the former Boulder Community Health/Broadway campus site, for city services.

Special Highlight Sections

As in previous years, this document contains a few special highlight sections to provide more detailed information on special initiatives or other areas of focus that warrant additional information to what is provided in the funding summaries and/or department pages. The highlight sections included herein are:

- Capital Improvement Bond – provides an update to spending and progress of projects funded by the 2011 Capital Bond
- Community, Culture and Safety Tax – provides an update to spending and planned work on projects funded by the 2014 voter approved Community, Culture and Safety temporary tax, similar to the Capital Improvement Bond highlight, and will continue to be updated until completion of projects
- Asset Assessment – provides information on citywide asset assessment efforts and results to date, as well as potential impact to CIP
- Central Boulder Long-Term Planning – provides information on the long-term planning process for the Central Boulder corridor, including University Hill, Civic Area and Alpine Balsam sites.

Challenges

Each year, as the CIP is being updated, City Council, advisory boards, and staff consider technical, environmental, and financial challenges that could potentially limit the ability of the city to fund its priority projects. Challenges being identified in the 2017–2022 CIP include, maintenance backlog, funding constraints, construction cost inflation, operational funding, and the conversion to new financial software.

Maintenance Backlog

The initial findings of asset assessments underway point to a significant maintenance backlog and worse facility and asset conditions than previously believed to be the case. In many instances, with the natural life cycle of buildings and facilities, this is the time at which replacement and renovation become necessary. In some instances, environmental changes seem to be shortening facility and asset life cycles. As assessment continues, maintenance will be prioritized and funding



options considered.

Funding Constraints

Revenue has recovered over the past few years and voter renewal of several expiring taxes has helped to stabilize the long-term outlook, however, a significant structural gap between needs and resources still remains. The city will continue to prioritize its needs based on its available resources, using the CIP Guiding Principles, as well as seek out opportunities for partnerships and new funding sources for capital investments.

Construction Cost Inflation

The *Engineering News Record* Construction Cost Index for Denver and the Colorado Department of Transportation (CDOT) Colorado Construction Cost Index indicate that construction costs are escalating at a rate of 2.0 and 2.5 percent respectively, based on a 5-year rolling average. As yearly variations are common, a five-year rolling average is more indicative of the inflationary trend. Staff closely monitors inflation indices and uses this information to determine expected capital cost escalation over the 6-year CIP. A higher cost escalator will reduce the amount of work that can be done with planned revenues, in particular, over the planning horizon of the CIP.

Operational Funding

The organization continues to face the challenge of increased operating and maintenance (O&M) costs associated with new and existing capital improvements. The current CIP strives to identify O&M cost increases associated with projects and to identify funding for this. It also identifies O&M savings produced by capital enhancements.

Conversion of CIP to Munis

Starting in mid-2014, departments, the Transform Boulder Business Initiative (TBBI) project team staff (working on the replacement of the city's financial and human resource software), and Finance staff worked together to determine how best to use Munis (the city's new Financial Software) as the replacement project database for the CIP. Previously, CIP projects were held in a stand-alone Access database which did not tie to either project management systems or the city's financial system. The goal was to include project information and financial data in the system, to allow for integrated financial and project management, as well as to ultimately provide better information on project expenditures over time.



With the implementation of Munis, all CIP project information and financial data are now stored in Munis and the system is used for project accounting, budget control and project management. Reporting capabilities are continuing to be refined and will evolve as familiarity with the new system increases. It was anticipated that by 2016 historical information on expenses would be available to include in the CIP, however reporting from the new system continues to be a challenge and the integration of expense information in the project sheets has not yet been achieved. Staff will continue to work with the software provider to develop this capability and may explore other options for improved project accounting and tracking, if needed.

Opportunities

Similarly, there are issues that positively impact the city's capital investment performance. Opportunities identified in the 2017–2022 CIP include additional funding availability; strategic planning for maintenance and unfunded needs; and capital investment plans and studies.

Funding – New Capital Revenue

In November 2014, Boulder voters approved the Community, Culture and Safety tax, a three-year 0.3 percent sales and use tax increase. Projected revenue from this temporary tax increase is anticipated to yield \$27.6 million for thirteen specific projects to improve community spaces, bolster cultural projects and organizations, and enhance safety. Projects to implement the Civic Area Plan will be funded by this tax. The 2017 – 2022 CIP includes a special highlight section, which provides additional information on the progress to date and project and spending plans of projects funded from the new tax.

In November 2013, voters approved a temporary sales and use tax for Transportation, and renewed expiring taxes for the purposes of funding open space, transportation and general city needs. This additional and renewed funding provides continued opportunity for capital investment in the city. The 2017–2022 CIP includes projects funded from these sources.

The city is currently completing an updated study of development excise tax and impact fees. Funds previously collected from these two growth impact related sources support projects in the 2017–2022 CIP. Once the study is completed and recommendations adopted by council, any new fee structure adopted may produce additional revenues that can be used toward projects for which there is deemed to be a growth impact component. Additional information on this can be found in the DET/Impact fee Special Highlight Section included in this document.



Strategic Planning for Unfunded Projects

As the city embarked upon the capital phase of the Comprehensive Financial Strategy (CFS), staff continued to identify a large number of unfunded capital needs across the city. The 2017–2022 CIP includes information on citywide unfunded capital needs, both in department overview sections and in Appendix A to this document.

Moving forward, the intention is to build on the Comprehensive Financial Strategy efforts of the past decade and establish a purposeful and continuous process for capital investment to support the city’s vision. As a first step, in 2015/2016, the city began citywide facility and asset assessment and more information on this is included in a special highlight section on asset assessment in this document. Next steps include establishing an ongoing strategic approach to capital planning that is integrated with the city’s comprehensive plan and long term vision. This is envisioned to include a consistent process for prioritizing capital projects, emerging needs, and asset maintenance, as well as securing ongoing operating funding.

A critical element of the new approach is recognizing the need to understand current assets and future maintenance/replacement needs associated with those, as well as to develop the ability and strategic framework to take advantage of new opportunities, as they arise, for the long-term benefit of the community. For example, the city was able to secure funding through Certificates of Participation in order to purchase the Boulder Community Hospital site that became available last year. Additional information on that site and other opportunities in the city are included in a special highlight section on Central Boulder long-term planning.

Capital Investment Plans & Studies

Over the last several years, there have been Master Plan updates in many key areas, such as: Fire, Police, Transportation, Parks and Recreation, and Open Space Trail Study Areas. Numerous assessments are underway or have been completed related to facilities and infrastructure that will directly inform capital planning and investment over the next decade. In some cases there is placeholder funding in the CIP for projects that have yet to be specifically identified but will be forthcoming from these planning efforts.

Transportation corridor scoping studies are proposed for funding in 2017 and 2017 that will guide capital planning along 30th & Colorado. Other recent planning efforts include Asset Assessments, Space Needs Analysis, an update to the Open Space Plan, that will inform future capital investment.



Flood mitigation master plans have been completed for most of the major drainageways. Flood mitigation plans are anticipated to be completed in 2016 for Bear Canyon Creek and in 2017 for Upper Goose Creek, Twomile Creek, Skunk Creek, King's Gulch and Bluebell Creek. A mapping study followed by a mitigation plan for Boulder Slough downstream of 30th Street is also planned.

Implementation of Subcommunity & Area Plans

Civic Area Plan

Work on the civic area is under way, focusing on site activation, site transformation and major capital project planning. The new Community, Culture, and Safety Tax revenues will fund projects in the Civic Area over the next three years including enhancements to areas north and south of Boulder Creek; playgrounds and nature play along both sides of the creek; new and improved community spaces; lighting, access and signage enhancements; public art; and renovation of the underpass at the Boulder Creek Path (13th Street).

Downtown Boulder

The future vision for downtown Boulder was developed through the Downtown Alliance, and its final report in 1997. While significant private and public investment has occurred since that time, continual investments in the downtown are needed to continue to ensure downtown remains a primary community gathering place, business and commercial center, and tourism attraction. In the next six years, projects in downtown include ongoing parking garage maintenance, repair and replacement of CAGID parking lots, construction of a shared parking facility at Trinity Commons, and improvements and amenities replacement on the mall.

Boulder Junction

The Boulder Junction area includes the Transit Village Area Plan (TVAP), adopted by the city in 2008, which covers 160 acres. Implementation of the plan is underway, with completion of the Junction Place Bridge at Goose Creek and the Pearl Parkway Multi-Way Boulevard from 30th to BNSF Railroad tracks on the south side of Pearl. Proposed capital investments in the next six years include construction of a new pocket park at Junction Place and Goose Creek, development of a rail plaza, traffic signal installations, and a multiuse path along the Boulder Slough between 30th and 3100 Pearl.



North Boulder Subcommunity Plan

The North Boulder Subcommunity Plan (NoBo Plan) was adopted by the city in 1995. City Council accepted the 2014 Action Plan that outlines a new generation of action items that further advances the original plan's vision. Much of the planning area has now been developed or is approved for development, and a significant number of improvements have been made in the area. Proposed Capital Improvements in the next six years include completion of the Wonderland Creek Flood and Greenways Improvements, Fourmile Canyon Creek Flood and Greenways Improvements, Violet Park development in coordination with Greenways, transportation improvements to 19th Street, North Broadway reconstruction, and implementation of the adopted North Trail Study Area Plan.

Project Planning, CEAP, and Project Design

Project planning and design for 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. The process varies depending on the scope of the project and other approval processes required (e.g. concept plan and site review, County 2041, etc.)

The projects that are proposed to be evaluated under Community and Environmental Assessment Process (CEAP) review are listed in Appendix B, and the individual project sheets identify if a CEAP is required. The purpose of a CEAP is defined to “assess potential impacts of conceptual project alternatives in order to inform the selection and refinement of a preferred alternative.” CEAP findings are submitted by departments to their respective advisory board for review as part of CIP project approval. Council has the opportunity to call up projects for their review and approval.

CIP Process

The annual CIP process can be divided into three parts: Planning, Project Review, and Board Review/City Council Adoption. The responsibility for coordinating the process citywide is shared by the Department of Community Planning & Sustainability and the Finance Department.

Planning

The first phase of the process identifies and prioritizes the needs of the community. This is done by applying Boulder's Sustainability 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 Framework build upon the Boulder Valley Comprehensive Plan 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.

The Sustainability Framework ensures that subcommunity and area plans and departmental master plans are aligned with the CIP. Subcommunity and area plans provide more detailed planning for land use, urban design, neighborhood revitalization, and public facility needs for a specific area of the city. Departmental master plans include details about and funding plans for future needs related to services and facilities. The master plans are used by each department during their decision making and prioritization as part of the annual budgeting and CIP processes. Figure 1–3 illustrates the relationship between the Sustainability Framework, BVCP, PBB, Subcommunity and Area Plans, Master Plans, and the CIP.

Figure 1–3: Relationship Between Plans and the CIP



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 also reviews the project information and



provides feedback to departments before departments propose projects for inclusion in the draft CIP.

Board Review and City Council Adoption

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, subcommunity 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.

CIP Process Changes

The CIP document and process have undergone significant changes over the past four years to improve the selection of projects and communication of information on selected projects. The CIP Guiding Principles have been the foundation for all project selection and CIP process improvements.

Many of the changes made to the CIP have focused on improving the financial information included in the CIP document, through a partnership with the Finance Department and Department of Community Planning & Sustainability. Additionally, as we move to a more fully on-line environment, changes have been made to enhance the electronic viewing of the CIP. This year, GIS mapping is provided through a link to an interactive site (<http://gisweb.bouldercolorado.gov/cip>), rather than in static printed map form. With the implementation of Munis, the new financial



and human resources Enterprise Resource Planning (ERP) software, CIP project information is now held and managed in an integrated system.

The city will continue to make improvements to the CIP in future years. Changes planned for the future include updates to the CIP section of the City Plans and Project Handbook, adding project expenditure and schedule information to the document (through data entered into Munis), continuing to incorporate graphical enhancements to improve the on-line view of the information and document, continuing to incorporate robust strategic planning in the process (as described above), and incorporating performance measures into the plan.



Figure 1–4: CIP Definition and Criteria

Capital Improvement Program Projects

“CIP projects are any major projects requiring the expenditure of public funds (over and above operation expenditures) for the purchase, construction, or replacement of the physical assets of the community. This broad definition includes those projects that are bondable, technology infrastructure, new or expanded physical facilities as well as the land necessary for the project.”

Criteria for New Capital Project:

- Construction resulting in the construction or acquisition of a new asset.
- Construction resulting in additional square footage of an existing asset.
- Projects have a discrete start and end date.
- Projects are location specific.
- Projects are typically over \$50,000 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.

Criteria for Capital Enhancement:

- Construction resulting 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 \$50,000 in total project cost, but do not have to be. Information Technology projects are typically over \$25,000 in total project cost.
- Projects result in a durable, long lasting asset, with a useful life of at least 15 years. Information Technology projects may be as short as 5 years.

Criteria for Capital Maintenance:

- Projects result 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 \$50,000 in total project cost. Information Technology projects are typically over \$25,000 in total project cost.
- Projects result in a durable, lasting physical asset, with a useful life of at least 5 years. Information Technology projects may be as short as 3 years.

Criteria for Land & Asset Acquisition:

- Project or program results in the acquisition of real property, such as land, mineral or water rights, or permanent easements.
- Projects may have discrete start and end dates, or may be programmatic.
- Projects or programs may be location specific or city-wide.
- Projects or programs typically include acquisitions totaling over \$50,000.

Criteria for 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 capital program.
- Projects have discrete start and end date.
- Projects are typically for studies that are over \$50,000 in total cost.

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City of Boulder
FUNDING SUMMARIES
2017–2022 Capital Improvement Program

The Funding Summaries section provides full detail of the city’s CIP budget needs from 2017 through 2022 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 2017–2022 and the six–year total
- Prior funded amount
- Unfunded amount

The Funding Summaries focus on estimated budget needs (sources) for all projects. The CIP this year shows limited instances of planned or actual expenditures at a project, department, or fund level. 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.

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City of Boulder
FUNDING BY DEPARTMENT
2017–2022 Capital Improvement Program



The following city departments are participating in the 2017–2022 CIP:

- Downtown / University Hill Management Division and Parking Services (DUHMD/PS)
- Fire and Rescue
- Information Technology (IT)
- Open Space and Mountain Parks (OSMP)
- Parks and Recreation
- Police
- Public Works (PW) – Facilities Asset Management (FAM)
- PW–Greenways
- PW–Municipal Airport
- PW—Stormwater and Flood Management Utility
- PW–Transportation
- PW–Wastewater Utility
- PW–Water Utility

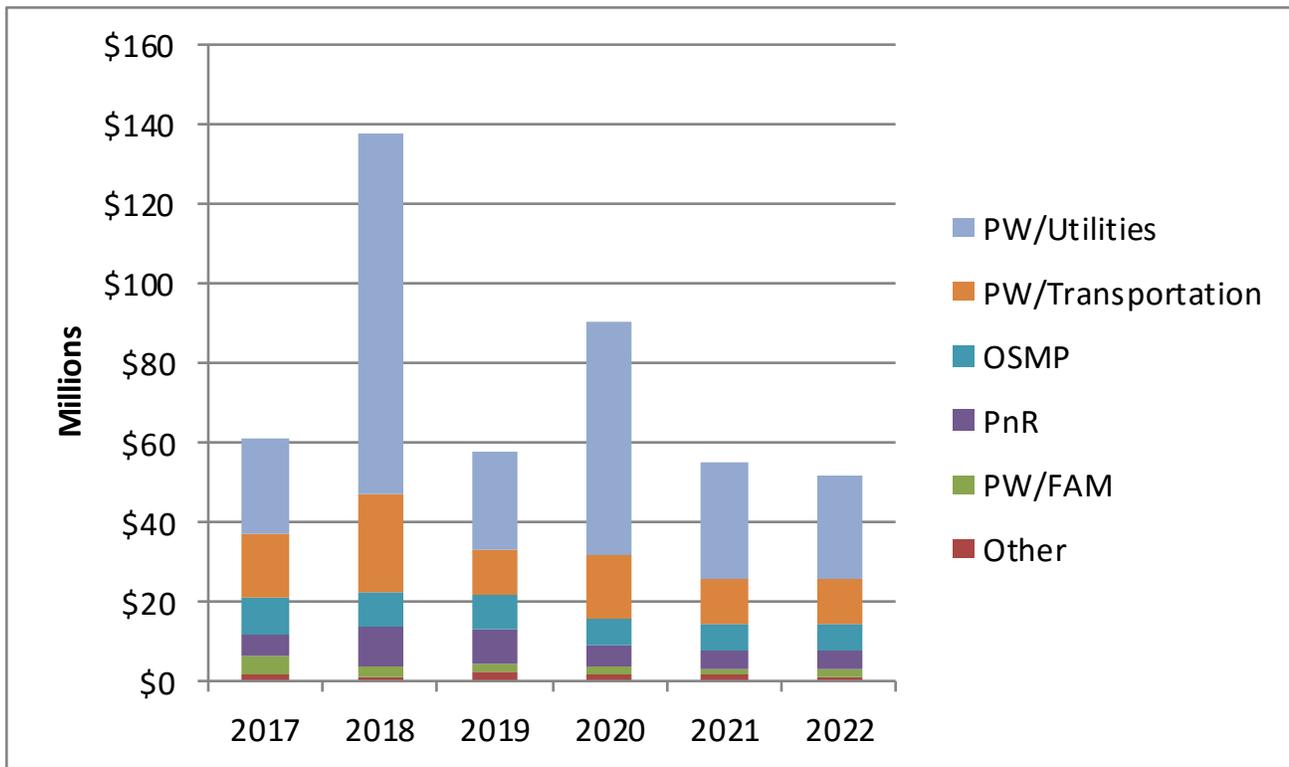
The Public Works divisions of Utilities and Transportation have the greatest allocations of resources in the 2017–2022 CIP. Major renovations to stormwater, water and wastewater facilities are primarily responsible for the large spikes in allocations during 2018 and 2020.

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 throughout 2016–2020.

Figure 2–2 displays the share of total 2017–2022 CIP spending on each department.



Figure 2-1: 2017-2022 Funding by Department



Other includes Community Vitality and Information Technology

Table 2-1: 2017-2022 Funding Summary By Department

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
COMMUNITY VITALITY	Department Total	\$ 2,678,200	\$ 678,200	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
INFORMATION TECHNOLOGY	Department Total	\$ 7,029,857	\$ 927,873	\$ 974,343	\$ 1,802,277	\$ 1,287,119	\$ 1,203,067	\$ 835,179
OPEN SPACE & MOUNTAIN PARKS	Department Total	\$ 46,455,000	\$ 9,530,000	\$ 8,885,000	\$ 8,060,000	\$ 6,810,000	\$ 6,685,000	\$ 6,485,000
PARKS & RECREATION	Department Total	\$ 39,564,000	\$ 5,420,000	\$ 10,144,000	\$ 9,250,000	\$ 5,500,000	\$ 4,250,000	\$ 5,000,000
PW/FACILITIES & ASSET MNGMT	Department Total	\$ 13,625,000	\$ 4,511,000	\$ 2,032,000	\$ 1,941,000	\$ 1,755,000	\$ 1,674,000	\$ 1,712,000
PW/STORMWATER & FLOOD UTILITY	Department Total	\$ 60,424,953	\$ 6,395,550	\$ 32,532,222	\$ 4,054,308	\$ 4,533,357	\$ 8,507,738	\$ 4,401,778
PW/TRANSPORTATION	Department Total	\$ 91,742,810	\$ 16,227,635	\$ 24,696,635	\$ 11,579,635	\$ 16,079,635	\$ 11,579,635	\$ 11,579,635
PW/WASTEWATER UTILITY	Department Total	\$ 81,496,482	\$ 8,168,512	\$ 19,020,491	\$ 8,850,831	\$ 33,342,880	\$ 6,630,441	\$ 5,483,327
PW/WATER UTILITY	Department Total	\$ 111,396,253	\$ 9,330,215	\$ 39,384,442	\$ 11,718,449	\$ 20,969,225	\$ 14,365,393	\$ 15,628,529
Total		\$ 454,412,555	\$ 61,188,985	\$ 138,069,133	\$ 57,656,500	\$ 90,677,216	\$ 55,295,274	\$ 51,525,448

Table 2-1: 2017-2022 Funding Summary By Department (Cont.)

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
COMMUNITY VITALITY	Department Total	\$ 2,678,200	\$ 678,200	\$ 400,000				
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 2,678,200	\$ 678,200	\$ 400,000				
	Downtown 14th St Prkg Lot Improve	\$ 150,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
	Downtown Parking Garage Elevators	\$ 278,200	\$ 278,200	\$ -	\$ -	\$ -	\$ -	\$ -
	Downtown Parking Garage Major	\$ 1,500,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
	Downtown Pearl St Mall Amenity	\$ 750,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
INFORMATION TECHNOLOGY	Department Total	\$ 7,029,857	\$ 927,873	\$ 974,343	\$ 1,802,277	\$ 1,287,119	\$ 1,203,067	\$ 835,179
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 7,029,857	\$ 927,873	\$ 974,343	\$ 1,802,277	\$ 1,287,119	\$ 1,203,067	\$ 835,179
	Data Backup and Disaster Recovery	\$ 122,234	\$ 41,895	\$ 80,339	\$ -	\$ -	\$ -	\$ -
	Database Hardware Replacement	\$ 77,900	\$ -	\$ -	\$ 25,900	\$ 42,000	\$ 10,000	\$ -
	End User Device Replacement	\$ 3,576,372	\$ 619,147	\$ 567,449	\$ 604,629	\$ 570,950	\$ 561,350	\$ 652,846
	Network Hardware Replacement	\$ 2,640,351	\$ 226,968	\$ 237,155	\$ 1,112,180	\$ 671,969	\$ 209,746	\$ 182,333
	Security Administration	\$ 62,861	\$ 1,862	\$ -	\$ 30,068	\$ -	\$ 30,931	\$ -
	Server Hardware Replacement	\$ 550,140	\$ 38,000	\$ 89,400	\$ 29,500	\$ 2,200	\$ 391,040	\$ -

Table 2-1: 2017-2022 Funding Summary By Department (Cont.)

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
OPEN SPACE & MOUNTAIN PARKS	Department Total	\$ 46,455,000	\$ 9,530,000	\$ 8,885,000	\$ 8,060,000	\$ 6,810,000	\$ 6,685,000	\$ 6,485,000
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 7,415,000	\$ 2,190,000	\$ 1,635,000	\$ 1,010,000	\$ 910,000	\$ 910,000	\$ 760,000
	Confluence Area Restoration Phase 2	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Farm Site Improvements	\$ 360,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000
	Flood Eng. Trails	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Flood Trails	\$ 305,000	\$ 305,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Goodhue Ditch Fish Passage	\$ 300,000	\$ -	\$ 300,000	\$ -	\$ -	\$ -	\$ -
	NTSA Implementation	\$ 2,500,000	\$ 400,000	\$ 500,000	\$ 500,000	\$ 400,000	\$ 400,000	\$ 300,000
	OSMP Innovations	\$ 650,000	\$ 75,000	\$ 175,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
	S.Bldr Crk at E.Bldr Ditch Const	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Visitor Infrastructure Amenities	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
	WTSA Implementation	\$ 1,350,000	\$ 400,000	\$ 400,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 100,000
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 5,440,000	\$ 640,000	\$ 750,000	\$ 900,000	\$ 1,000,000	\$ 1,025,000	\$ 1,125,000
	Agriculture Facilities Projects	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
	Cultural Resource/Facility Restorat	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
	Ecological System Maintenance/Restr	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
	Facilities Maintenance	\$ 1,700,000	\$ 200,000	\$ 250,000	\$ 300,000	\$ 300,000	\$ 325,000	\$ 325,000
	Major Trail Maintenance	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
CIP-CAPITAL PLANNING STUDIES	Subtotal	\$ 1,450,000	\$ 300,000	\$ 100,000	\$ 150,000	\$ 200,000	\$ 300,000	\$ 400,000
	ETSA - Plan and Implementation	\$ 950,000	\$ -	\$ -	\$ 50,000	\$ 200,000	\$ 300,000	\$ 400,000
	OSMP Master Plan Update	\$ 500,000	\$ 300,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -
CIP-LAND ACQUISITION	Subtotal	\$ 32,150,000	\$ 6,400,000	\$ 6,400,000	\$ 6,000,000	\$ 4,700,000	\$ 4,450,000	\$ 4,200,000
	Mineral Rights Acquisition	\$ 600,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
	New Property Stabilization	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
	OSMP Campus Relocation	\$ 4,400,000	\$ 1,400,000	\$ 1,400,000	\$ 1,000,000	\$ 200,000	\$ 200,000	\$ 200,000
	OSMP Real Estate Acquisition	\$ 24,750,000	\$ 4,500,000	\$ 4,500,000	\$ 4,500,000	\$ 4,000,000	\$ 3,750,000	\$ 3,500,000
	Water Rights Acquisition	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000

Table 2-1: 2017-2022 Funding Summary By Department (Cont.)

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PARKS & RECREATION	Department Total	\$ 39,564,000	\$ 5,420,000	\$ 10,144,000	\$ 9,250,000	\$ 5,500,000	\$ 4,250,000	\$ 5,000,000
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 24,200,000	\$ 3,250,000	\$ 7,700,000	\$ 4,250,000	\$ 2,750,000	\$ 3,250,000	\$ 3,000,000
	Aquatic Facility Enhancements	\$ 2,500,000	\$ -	\$ -	\$ 2,000,000	\$ -	\$ 500,000	\$ -
	Athletic Field Development	\$ 2,950,000	\$ 500,000	\$ 200,000	\$ 250,000	\$ 250,000	\$ 750,000	\$ 1,000,000
	Boulder Reservoir 51st Street Path	\$ 1,000,000	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -
	General Park Improvements	\$ 8,000,000	\$ 1,500,000	\$ 500,000	\$ 1,000,000	\$ 1,000,000	\$ 2,000,000	\$ 2,000,000
	Lighting Ordinance Implementation	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Scott Carpenter Aqua Enhancements	\$ 8,000,000	\$ 1,000,000	\$ 7,000,000	\$ -	\$ -	\$ -	\$ -
	Tom Watson Park Enhancements	\$ 1,500,000	\$ -	\$ -	\$ -	\$ 1,500,000	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 7,940,000	\$ 1,720,000	\$ 1,720,000	\$ 1,000,000	\$ 500,000	\$ 1,000,000	\$ 2,000,000
	Boulder Reservoir South Improvement	\$ 3,000,000	\$ 1,500,000	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -
	EAB Response Measures	\$ 2,440,000	\$ 220,000	\$ 220,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
	Flatiron Golf Course Repairs	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ -
	Recreation Facility Repairs	\$ 2,000,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ 1,500,000
CIP-CAPITAL PLANNING STUDIES	Subtotal	\$ 350,000	\$ 100,000	\$ -	\$ -	\$ 250,000	\$ -	\$ -
	Parks and Rec Master Plan	\$ 250,000	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -
	Yard/Maintenance Facility Site Plan	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
CIP-LAND ACQUISITION	Subtotal	\$ 1,874,000	\$ -	\$ 374,000	\$ 1,500,000	\$ -	\$ -	\$ -
	Boulder Junction Rail Plaza	\$ 1,874,000	\$ -	\$ 374,000	\$ 1,500,000	\$ -	\$ -	\$ -
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 5,200,000	\$ 350,000	\$ 350,000	\$ 2,500,000	\$ 2,000,000	\$ -	\$ -
	Boulder Junction Pocket Park	\$ 700,000	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -
	Valmont City Park Development	\$ 4,000,000	\$ -	\$ -	\$ 2,000,000	\$ 2,000,000	\$ -	\$ -
	Violet Neighborhood Park	\$ 500,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -

Table 2-1: 2017-2022 Funding Summary by Department (Cont.)

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PW/FACILITIES & ASSET MNGMT	Department Total	\$ 13,625,000	\$ 4,511,000	\$ 2,032,000	\$ 1,941,000	\$ 1,755,000	\$ 1,674,000	\$ 1,712,000
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 3,425,000	\$ 2,425,000	\$ -	\$ -	\$ 700,000	\$ -	\$ 300,000
	Brenton Building - Renovation	\$ 2,150,000	\$ 2,150,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Main Library Restroom Renovation	\$ 75,000	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Tantra Shop Renovation	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000
	Upgrade Radio Communications Sites	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -
	West Senior Center Maj Maint & Reha	\$ 700,000	\$ -	\$ -	\$ -	\$ 700,000	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 9,220,000	\$ 1,856,000	\$ 1,802,000	\$ 1,811,000	\$ 925,000	\$ 1,544,000	\$ 1,282,000
	Addtl Facility Maintenance Projects	\$ 2,400,000	\$ 300,000	\$ 1,000,000	\$ -	\$ 200,000	\$ 400,000	\$ 500,000
	Aquatics Facility Repairs	\$ 976,000	\$ -	\$ -	\$ 723,000	\$ -	\$ 253,000	\$ -
	BMoCA - Electrical Upgrade	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Fire Stations Major Maintenance	\$ 845,000	\$ 126,000	\$ 132,000	\$ 138,000	\$ 145,000	\$ 152,000	\$ 152,000
	Fleet - System Repairs/Replacements	\$ 460,000	\$ 80,000	\$ 220,000	\$ -	\$ 80,000	\$ -	\$ 80,000
	Martin Park Shelter Major Maint	\$ 169,000	\$ -	\$ -	\$ -	\$ -	\$ 169,000	\$ -
	Misc Facility Maintenance Projects	\$ 2,530,000	\$ 380,000	\$ 400,000	\$ 400,000	\$ 450,000	\$ 400,000	\$ 500,000
	Miscellaneous Facility DET Proj	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	MSC - Bldg A - Replace Central AHU	\$ 80,000	\$ 80,000	\$ -	\$ -	\$ -	\$ -	\$ -
	MSC - Building A - Roof Replacement	\$ 240,000	\$ 240,000	\$ -	\$ -	\$ -	\$ -	\$ -
	North Boulder Park Shelter Rep	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ 120,000	\$ -
	Recreation Facility Repairs	\$ 1,000,000	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -
CIP-CAPITAL PLANNING STUDIES	Subtotal	\$ 980,000	\$ 230,000	\$ 230,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000
	City Facilities Analysis/Consolidat	\$ 200,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -
	Facility Assessments	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	Misc Space Needs and Analysis	\$ 480,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000

Table 2-1: 2017-2022 Funding Summary By Department (Cont.)

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PW/TRANSPORTATION	Department Total	\$ 91,742,810	\$ 16,227,635	\$ 24,696,635	\$ 11,579,635	\$ 16,079,635	\$ 11,579,635	\$ 11,579,635
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 41,763,000	\$ 8,407,500	\$ 14,673,500	\$ 4,670,500	\$ 4,670,500	\$ 4,670,500	\$ 4,670,500
	19th St (Norwood to Sumac)	\$ 744,000	\$ 567,000	\$ 177,000	\$ -	\$ -	\$ -	\$ -
	Bldr County/City Joint TIP Projects	\$ 151,000	\$ -	\$ 151,000	\$ -	\$ -	\$ -	\$ -
	Broadway Recon Violet to 36	\$ 6,825,000	\$ 1,250,000	\$ 5,575,000	\$ -	\$ -	\$ -	\$ -
	Foothills & Colorado Underpass	\$ 4,400,000	\$ 960,000	\$ 3,440,000	\$ -	\$ -	\$ -	\$ -
	Greenways Program Transportation	\$ 585,000	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500
	Misc Development Coordination	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	Pavement Management Program	\$ 24,258,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000
	Quiet Zone Implementation	\$ 1,320,000	\$ 660,000	\$ 660,000	\$ -	\$ -	\$ -	\$ -
	TIP Local Match TMP Implementation	\$ 2,880,000	\$ 480,000	\$ 480,000	\$ 480,000	\$ 480,000	\$ 480,000	\$ 480,000
	Valmont & 29th Hazard Elimination	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 20,512,810	\$ 2,703,135	\$ 3,073,135	\$ 2,559,135	\$ 7,059,135	\$ 2,559,135	\$ 2,559,135
	Deficient Street Light Pole Replace	\$ 749,000	\$ 265,000	\$ -	\$ 121,000	\$ 121,000	\$ 121,000	\$ 121,000
	Major Capital Reconstruction	\$ 4,800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000
	Major Street Reconstruction	\$ 2,304,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000
	Multiuse Path Capital Maintenance	\$ 2,382,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000
	Ped Facilities Repair, Replace, ADA	\$ 3,774,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000
	Rehab Runway & Eastern Taxiway	\$ 4,935,000	\$ -	\$ 435,000	\$ -	\$ 4,500,000	\$ -	\$ -
	Sidewalk Maintenance	\$ 1,368,810	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135
	Signal Maintenance & Upgrade	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -
CIP-CAPITAL PLANNING STUDIES	Subtotal	\$ 100,000	\$ 100,000	\$ -				
	Trans Corridor 30th & Colorado	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 29,367,000	\$ 5,017,000	\$ 6,950,000	\$ 4,350,000	\$ 4,350,000	\$ 4,350,000	\$ 4,350,000
	30th St and Colorado Bike/Ped Under	\$ 5,200,000	\$ 600,000	\$ 4,600,000	\$ -	\$ -	\$ -	\$ -
	30th St and Colorado Bike/Ped Under	\$ 2,000,000	\$ 700,000	\$ 1,300,000	\$ -	\$ -	\$ -	\$ -
	Baseline Underpass Broadway to 28th	\$ 700,000	\$ 700,000	\$ -	\$ -	\$ -	\$ -	\$ -
	BJ Traffic Signal Bluff St & 30th	\$ 228,000	\$ 228,000	\$ -	\$ -	\$ -	\$ -	\$ -
	BJ Traffic Signal Jct & Valmont	\$ 304,000	\$ 304,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Junction - Develop Coord	\$ 75,000	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Slough Multiuse Path 30th	\$ 435,000	\$ 435,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Slough Multiuse Path 30th	\$ 125,000	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Multiuse Path - Enhancements	\$ 1,350,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000
	Ped Facs Enh Missing Links Crossing	\$ 750,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
	TIP Local Match/TMP Implementation	\$ 18,200,000	\$ 1,500,000	\$ 700,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000

Table 2-1: 2017-2022 Funding Summary By Department (Cont.)

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PW/STORMWATER & FLOOD UTILITY	Department Total	\$ 60,424,953	\$ 6,395,550	\$ 32,532,222	\$ 4,054,308	\$ 4,533,357	\$ 8,507,738	\$ 4,401,778
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 24,564,610	\$ 4,476,850	\$ 5,963,722	\$ 2,752,308	\$ 2,542,657	\$ 6,507,521	\$ 2,321,552
	Boulder Creek Flood Mitigation	\$ 1,250,000	\$ -	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -
	Fourmile - Upstream of Upland Ave	\$ 5,000,000	\$ 3,000,000	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -
	Goose Creek 19th to Folsom	\$ 4,050,000	\$ -	\$ -	\$ 1,500,000	\$ 1,250,000	\$ 500,000	\$ 800,000
	Greenways Program - Flood fund	\$ 626,273	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 138,773
	Greenways Program - Lottery Fund	\$ 906,402	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067
	Gregory Creek Flood Mitigation	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -
	Local Drainage Improvements	\$ 5,237,645	\$ 759,283	\$ 789,655	\$ 821,241	\$ 854,090	\$ 986,949	\$ 1,026,427
	Skunk Creek Flood Mitigation	\$ 700,000	\$ 200,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
	Stormwater Quality Improvements	\$ 1,119,675	\$ 169,000	\$ 175,500	\$ 182,500	\$ 190,000	\$ 197,390	\$ 205,285
	SW MGMT - Bear Canyon Creek	\$ 324,846	\$ -	\$ -	\$ -	\$ -	\$ 324,846	\$ -
	SW MGMT - Middle Boulder Creek	\$ 3,862,873	\$ -	\$ -	\$ -	\$ -	\$ 3,862,873	\$ -
	SW MGMT - Wonderland Creek	\$ 386,896	\$ -	\$ -	\$ -	\$ -	\$ 386,896	\$ -
	Twomile Canyon Creek	\$ 600,000	\$ 100,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 5,946,402	\$ 618,700	\$ 643,500	\$ 669,000	\$ 1,330,700	\$ 1,315,932	\$ 1,368,570
	Storm Sewer Rehabilitation	\$ 2,852,651	\$ 281,200	\$ 292,500	\$ 304,000	\$ 632,700	\$ 657,966	\$ 684,285
	Transportation Coordination	\$ 3,028,751	\$ 337,500	\$ 351,000	\$ 365,000	\$ 633,000	\$ 657,966	\$ 684,285
	Utility Billing Computer System	\$ 65,000	\$ -	\$ -	\$ -	\$ 65,000	\$ -	\$ -
CIP-LAND ACQUISITION	Subtotal	\$ 3,838,941	\$ 550,000	\$ 600,000	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656
	Preflood Property Acquisition	\$ 3,838,941	\$ 550,000	\$ 600,000	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 26,075,000	\$ 750,000	\$ 25,325,000	\$ -	\$ -	\$ -	\$ -
	South Boulder Creek Phase I	\$ 26,075,000	\$ 750,000	\$ 25,325,000	\$ -	\$ -	\$ -	\$ -

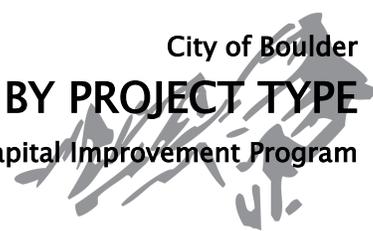
Table 2-1: 2017-2022 Funding Summary By Department (Cont.)

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PW/WATER UTILITY	Department Total	\$ 111,396,253	\$ 9,330,215	\$ 39,384,442	\$ 11,718,449	\$ 20,969,225	\$ 14,365,393	\$ 15,628,529
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 52,791,612	\$ 2,625,000	\$ 32,449,040	\$ 1,668,882	\$ 9,148,194	\$ 5,413,622	\$ 1,486,874
	Barker Dam and Reservoir	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Barker Dam Outlet	\$ 9,466,060	\$ 175,000	\$ -	\$ 835,551	\$ 8,455,509	\$ -	\$ -
	Devil's Thumb Storage Tank	\$ 1,486,874	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,486,874
	Green Lake 2 Dam	\$ 561,773	\$ -	\$ -	\$ -	\$ 75,000	\$ 486,773	\$ -
	Lakewood Dam	\$ 124,707	\$ -	\$ 124,707	\$ -	\$ -	\$ -	\$ -
	Lakewood Hydroelectric/PRV	\$ 300,000	\$ -	\$ -	\$ 300,000	\$ -	\$ -	\$ -
	NCWCD Conveyance - Carter Lake Pipe	\$ 34,200,000	\$ 2,150,000	\$ 32,050,000	\$ -	\$ -	\$ -	\$ -
	Pearl Street Hydro/PRV Facility	\$ 267,664	\$ -	\$ 24,333	\$ 243,331	\$ -	\$ -	\$ -
	Source Water Monitoring/Protection	\$ 300,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -
	Utility Billing Computer System	\$ 125,000	\$ -	\$ -	\$ -	\$ 125,000	\$ -	\$ -
	Water System Security/Quality Imprv	\$ 390,000	\$ 150,000	\$ 150,000	\$ 90,000	\$ -	\$ -	\$ -
	Wittemyer Ponds	\$ 5,519,534	\$ -	\$ -	\$ 100,000	\$ 492,685	\$ 4,926,849	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 55,754,641	\$ 6,705,215	\$ 6,885,402	\$ 9,799,567	\$ 9,321,031	\$ 8,951,771	\$ 14,091,655
	Albion Dam	\$ 3,757,997	\$ -	\$ 341,636	\$ 3,416,361	\$ -	\$ -	\$ -
	Barker Gravity Pipeline Repair	\$ 11,373,144	\$ 1,559,811	\$ 1,622,204	\$ 1,687,092	\$ 2,083,559	\$ 2,166,901	\$ 2,253,577
	Barker-Kossler Penstock Repair	\$ 116,986	\$ 116,986	\$ -	\$ -	\$ -	\$ -	\$ -
	Betasso Hydroelectric / PRF	\$ 880,000	\$ 400,000	\$ 480,000	\$ -	\$ -	\$ -	\$ -
	Betasso Storage Tank Rehabilitation	\$ 292,465	\$ 292,465	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Canyon Hydro	\$ 90,000	\$ -	\$ 90,000	\$ -	\$ -	\$ -	\$ -
	Boulder Reservoir	\$ 118,434	\$ -	\$ -	\$ -	\$ 118,434	\$ -	\$ -
	Distribution Waterline Replacement	\$ 23,129,706	\$ 3,487,078	\$ 3,626,562	\$ 3,771,624	\$ 3,922,489	\$ 4,079,389	\$ 4,242,564
	Farmer's Ditch	\$ 108,160	\$ -	\$ -	\$ 108,160	\$ -	\$ -	\$ -
	Goose Lake Dam	\$ 4,942,726	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ 4,867,726
	Hydro Facilities Rehab Program	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	Island Lake Dam	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -
	Kossler Dam	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
	Lakewood Pipeline	\$ 316,330	\$ -	\$ -	\$ 316,330	\$ -	\$ -	\$ -
	Reservoir Water Treatment Facility	\$ 1,000,000	\$ 200,000	\$ 200,000	\$ -	\$ 600,000	\$ -	\$ -
	Silver Lake Dam	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -
	Silver Lake Hydroelectric/PRV	\$ 250,000	\$ 50,000	\$ -	\$ 200,000	\$ -	\$ -	\$ -
	Skyscraper Dam	\$ 171,071	\$ -	\$ -	\$ -	\$ -	\$ 171,071	\$ -
	Source Pumping and Hydro Rehab	\$ 1,503,941	\$ 150,000	\$ 150,000	\$ 150,000	\$ 343,472	\$ 351,210	\$ 359,259
	Sunshine Hydroelectric/PRV Facility	\$ 271,875	\$ 271,875	\$ -	\$ -	\$ -	\$ -	\$ -
	Water Treatment Equipment Replacemt	\$ 529,000	\$ 127,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 50,000	\$ 52,000
	Watershed Improvements	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -
	Zone 1 Transmission Pipes	\$ 1,955,998	\$ -	\$ -	\$ -	\$ 626,601	\$ 651,665	\$ 677,732

Table 2-1: 2017-2022 Funding Summary By Department (Cont.)

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PW/WATER UTILITY (Cont.)	Department Total	\$ 111,396,253	\$ 9,330,215	\$ 39,384,442	\$ 11,718,449	\$ 20,969,225	\$ 14,365,393	\$ 15,628,529
CIP-CAPITAL MAINTENANCE (Cont.)	Subtotal	\$ 55,754,641	\$ 6,705,215	\$ 6,885,402	\$ 9,799,567	\$ 9,321,031	\$ 8,951,771	\$ 14,091,655
	Zone 2 Transmission Pipes	\$ 2,837,585	\$ -	\$ -	\$ -	\$ 909,016	\$ 945,377	\$ 983,192
	Zone 3 Transmission Pipes	\$ 1,459,223	\$ -	\$ -	\$ -	\$ 467,460	\$ 486,158	\$ 505,605
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ -	\$ 50,000	\$ 250,000	\$ 2,500,000	\$ -	\$ -	\$ -
	Barker Dam Hydroelectric	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000
	Carter Lake Hydroelectric	\$ 2,800,000	\$ -	\$ 50,000	\$ 250,000	\$ 2,500,000	\$ -	\$ -

City of Boulder
FUNDING BY PROJECT TYPE
2017–2022 Capital Improvement Program



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 Capital Project

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 resulting 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 \$50,000 in total project cost, but do not have to be. Information Technology projects are typically over \$25,000 in total project cost
- Projects result in a durable, long lasting asset, with a useful life of at least 15 years. Information Technology projects may be as short as 5 years.

Capital Maintenance:

- Projects result 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 \$50,000 in total project cost. Information Technology projects are typically over \$25,000 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 capital program
- Projects have discrete start and end date
- Projects are typically for studies that are over \$50,000 in total cost

Land & Asset Acquisition:

- Project or program results in the acquisition of real property, such as land, mineral or water rights, or permanent easements
- Projects may have discrete start and end dates, or may be programmatic
- Projects or programs may be location specific or city-wide
- Projects or programs typically include acquisitions totaling over \$50,000

Criteria for New Capital Project:

- Projects resulting in the construction or acquisition of a new asset
- Construction resulting in additional square footage of an existing asset
- Projects have a discrete start and end date
- Projects are location specific
- Projects are typically over \$50,000 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.



Figure 2-2: 2017-2022 Funding by Project Type

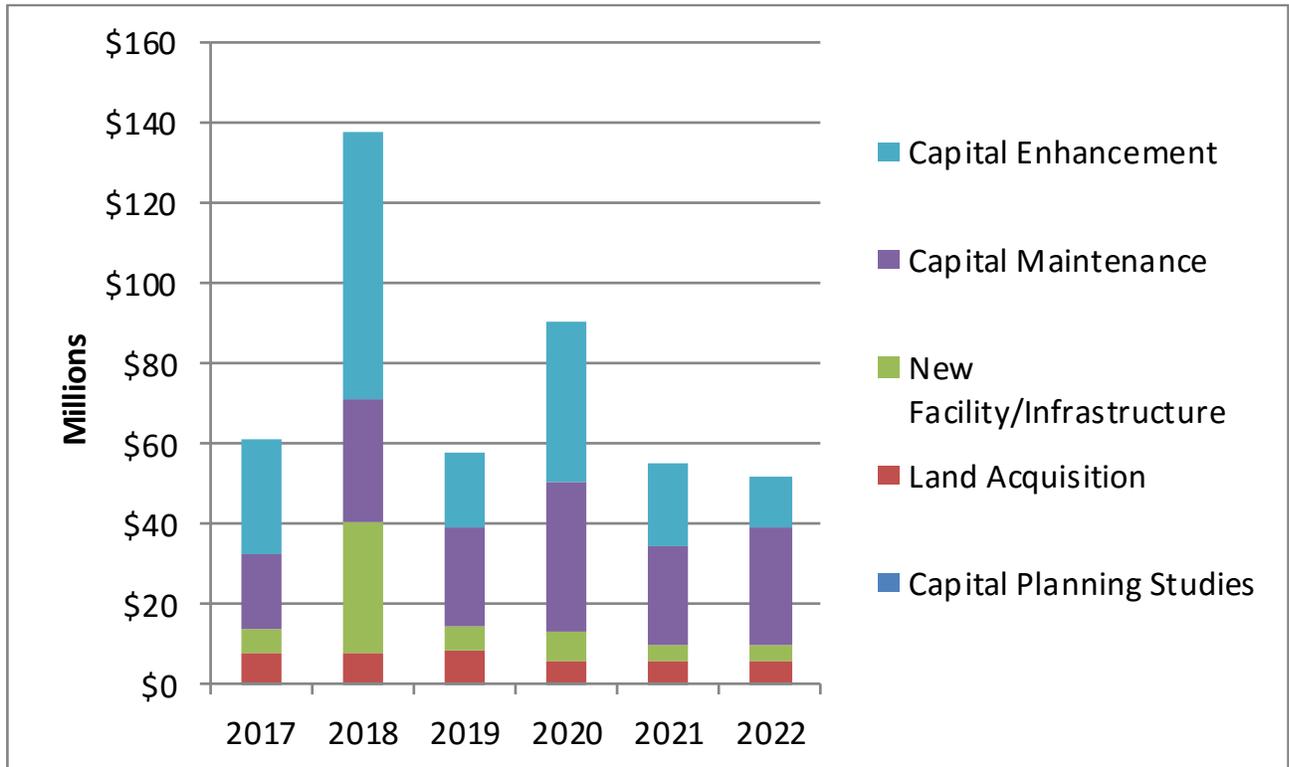


Figure 2-3: 2017-2022 Funding by Project Type Excluding Utilities

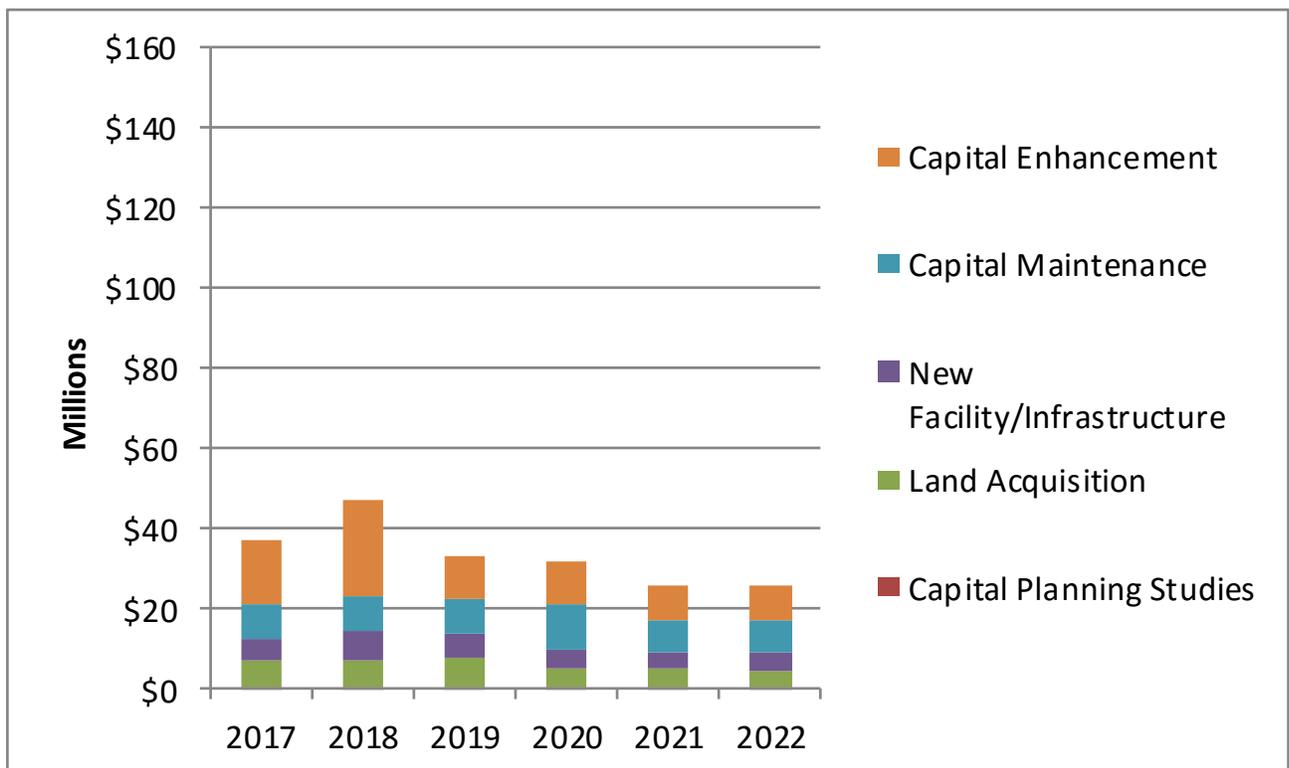


Table 2-2: 2017-2022 Funding Summary By Project Type

Project Type	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
CIP-CAPITAL ENHANCEMENT	Type Total	\$ 187,820,696	\$ 28,474,350	\$ 66,990,762	\$ 18,681,807	\$ 40,096,351	\$ 20,888,500	\$ 12,688,926
CIP-CAPITAL MAINTENANCE	Type Total	\$ 165,356,918	\$ 18,917,635	\$ 30,699,371	\$ 24,461,693	\$ 37,790,865	\$ 24,492,489	\$ 28,994,866
CIP-CAPITAL PLANNING STUDIES	Type Total	\$ 2,880,000	\$ 730,000	\$ 330,000	\$ 280,000	\$ 580,000	\$ 430,000	\$ 530,000
CIP-LAND ACQUISITION	Type Total	\$ 37,862,941	\$ 6,950,000	\$ 7,374,000	\$ 8,133,000	\$ 5,360,000	\$ 5,134,285	\$ 4,911,656
CIP-NEW FACILITY/INFRASTRUCTUR	Type Total	\$ 60,492,000	\$ 6,117,000	\$ 32,675,000	\$ 6,100,000	\$ 6,850,000	\$ 4,350,000	\$ 4,400,000
Total		\$ 454,412,555	\$ 61,188,985	\$138,069,133	\$ 57,656,500	\$ 90,677,216	\$ 55,295,274	\$ 51,525,448

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Table 2-2: 2017-2022 Funding Summary By Project Type (Cont.)

Project Type	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
CIP-CAPITAL ENHANCEMENT	Type Total	\$ 187,820,696	\$ 28,474,350	\$ 66,990,762	\$ 18,681,807	\$ 40,096,351	\$ 20,888,500	\$ 12,688,926
	19th St (Norwood to Sumac)	\$ 744,000	\$ 567,000	\$ 177,000	\$ -	\$ -	\$ -	\$ -
	Aquatic Facility Enhancements	\$ 2,500,000	\$ -	\$ -	\$ 2,000,000	\$ -	\$ 500,000	\$ -
	Athletic Field Development	\$ 2,950,000	\$ 500,000	\$ 200,000	\$ 250,000	\$ 250,000	\$ 750,000	\$ 1,000,000
	Barker Dam and Reservoir	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Barker Dam Outlet	\$ 9,466,060	\$ 175,000	\$ -	\$ 835,551	\$ 8,455,509	\$ -	\$ -
	Bldr County/City Joint TIP Projects	\$ 151,000	\$ -	\$ 151,000	\$ -	\$ -	\$ -	\$ -
	Boulder Creek Flood Mitigation	\$ 1,250,000	\$ -	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -
	Boulder Reservoir 51st Street Path	\$ 500,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -
	Boulder Reservoir Trail	\$ 500,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -
	Brenton Building - Renovation	\$ 2,150,000	\$ 2,150,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Broadway Recon Violet to 36	\$ 6,825,000	\$ 1,250,000	\$ 5,575,000	\$ -	\$ -	\$ -	\$ -
	Confluence Area Restoration Phase 2	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Devil's Thumb Storage Tank	\$ 1,486,874	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,486,874
	Farm Site Improvements	\$ 360,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000
	Flood Eng. Trails	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Flood Trails	\$ 305,000	\$ 305,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Foothills & Baseline Trunk Swr Repl	\$ 3,497,000	\$ -	\$ 3,497,000	\$ -	\$ -	\$ -	\$ -
	Foothills & Colorado Underpass	\$ 4,400,000	\$ 960,000	\$ 3,440,000	\$ -	\$ -	\$ -	\$ -
	Fourmile - Upstream of Upland Ave	\$ 5,000,000	\$ 3,000,000	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -
	General Park Improvements	\$ 5,105,200	\$ 745,200	\$ 72,000	\$ 572,000	\$ 572,000	\$ 1,572,000	\$ 1,572,000
	General Park Improvements	\$ 2,894,800	\$ 754,800	\$ 428,000	\$ 428,000	\$ 428,000	\$ 428,000	\$ 428,000
	Goodhue Ditch Fish Passage	\$ 300,000	\$ -	\$ 300,000	\$ -	\$ -	\$ -	\$ -
	Goose Creek 19th to Folsom	\$ 4,050,000	\$ -	\$ -	\$ 1,500,000	\$ 1,250,000	\$ 500,000	\$ 800,000
	Green Lake 2 Dam	\$ 561,773	\$ -	\$ -	\$ -	\$ 75,000	\$ 486,773	\$ -
	Greenways Program - Flood fund	\$ 626,273	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 138,773
	Greenways Program - Lottery Fund	\$ 906,402	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067
	Greenways Program Transportation	\$ 585,000	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500
	Gregory Creek Flood Mitigation	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -
	Lakewood Dam	\$ 124,707	\$ -	\$ 124,707	\$ -	\$ -	\$ -	\$ -
	Lakewood Hydroelectric/PRV	\$ 300,000	\$ -	\$ -	\$ 300,000	\$ -	\$ -	\$ -
	Lighting Ordinance Implementation	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Local Drainage Improvements	\$ 5,237,645	\$ 759,283	\$ 789,655	\$ 821,241	\$ 854,090	\$ 986,949	\$ 1,026,427
	Lower Goose Creek Trunk Repl	\$ 4,000,000	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Main Library Restroom Renovation	\$ 75,000	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -

Table 2-2: 2017-2022 Funding Summary By Project Type (Cont.)

Project Type	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
CIP-CAPITAL ENHANCEMENT (Cont.)	Type Total	\$ 187,820,696	\$ 28,474,350	\$ 66,990,762	\$ 18,681,807	\$ 40,096,351	\$ 20,888,500	\$ 12,688,926
	Misc Development Coordination	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	NCWCD Conveyance - Carter Lake Pipe	\$ 34,200,000	\$ 2,150,000	\$ 32,050,000	\$ -	\$ -	\$ -	\$ -
	NTSA Implementation	\$ 2,500,000	\$ 400,000	\$ 500,000	\$ 500,000	\$ 400,000	\$ 400,000	\$ 300,000
	OSMP Innovations	\$ 650,000	\$ 75,000	\$ 175,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
	Pavement Management Program	\$ 24,258,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000
	Pearl Street Hydro/PRV Facility	\$ 267,664	\$ -	\$ 24,333	\$ 243,331	\$ -	\$ -	\$ -
	Quiet Zone Implementation	\$ 1,320,000	\$ 660,000	\$ 660,000	\$ -	\$ -	\$ -	\$ -
	Scott Carpenter Aqua Enhancements	\$ 3,000,000	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -
	Scott Carpenter Aquatics	\$ 5,000,000	\$ 1,000,000	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -
	Skunk Creek Flood Mitigation	\$ 700,000	\$ 200,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
	Source Water Monitoring/Protection	\$ 300,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -
	Stormwater Quality Improvements	\$ 1,119,675	\$ 169,000	\$ 175,500	\$ 182,500	\$ 190,000	\$ 197,390	\$ 205,285
	SW MGMT - Bear Canyon Creek	\$ 324,846	\$ -	\$ -	\$ -	\$ -	\$ 324,846	\$ -
	SW MGMT - Middle Boulder Creek	\$ 3,862,873	\$ -	\$ -	\$ -	\$ -	\$ 3,862,873	\$ -
	SW MGMT - Wonderland Creek	\$ 386,896	\$ -	\$ -	\$ -	\$ -	\$ 386,896	\$ -
	Tantra Shop Renovation	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000
	TIP Local Match TMP Implementation	\$ 2,880,000	\$ 480,000	\$ 480,000	\$ 480,000	\$ 480,000	\$ 480,000	\$ 480,000
	Tom Watson Park Enhancements	\$ 1,500,000	\$ -	\$ -	\$ -	\$ 1,500,000	\$ -	\$ -
	Twomile Canyon Creek	\$ 600,000	\$ 100,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
	Upgrade Radio Communications Sites	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Utility Billing Computer System	\$ 125,000	\$ -	\$ -	\$ -	\$ 125,000	\$ -	\$ -
	Valmont & 29th Hazard Elimination	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Valmont South City Park Development	\$ 3,000,000	\$ -	\$ -	\$ 1,000,000	\$ 2,000,000	\$ -	\$ -
	Visitor Infrastructure Amenities	\$ 800,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ 200,000
	Wastewater Treatment Facility Pumps	\$ 300,000	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000
	Water System Security/Quality Imprv	\$ 1,090,000	\$ 150,000	\$ 150,000	\$ 90,000	\$ 700,000	\$ -	\$ -
	West Senior Center Maj Maint & Reha	\$ 5,419,534	\$ -	\$ -	\$ -	\$ 492,685	\$ 4,926,849	\$ -
	Witemyer Ponds	\$ 400,000	\$ -	\$ -	\$ 100,000	\$ 150,000	\$ 150,000	\$ -
	WTSA Implementation	\$ 1,050,000	\$ 400,000	\$ 400,000	\$ 150,000	\$ -	\$ -	\$ 100,000
	WWTF Activated Sludge	\$ 189,798	\$ -	\$ -	\$ 189,798	\$ -	\$ -	\$ -
	WWTF Electrical	\$ 1,610,000	\$ 1,400,000	\$ 210,000	\$ -	\$ -	\$ -	\$ -
	WWTF Instrumentation/Control	\$ 1,265,319	\$ -	\$ -	\$ 1,265,319	\$ -	\$ -	\$ -
	WWTF Permit Improvements	\$ 20,099,357	\$ -	\$ 862,500	\$ 1,725,000	\$ 17,375,000	\$ 136,857	\$ -

Table 2-2: 2017-2022 Funding Summary By Project Type (Cont.)

Project Type	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
CIP-CAPITAL MAINTENANCE	Type Total	\$ 165,356,918	\$ 18,917,635	\$ 30,699,371	\$ 24,461,693	\$ 37,790,865	\$ 24,492,489	\$ 28,994,866
	Addtl Facility Maintenance Projects	\$ 2,400,000	\$ 300,000	\$ 1,000,000	\$ -	\$ 200,000	\$ 400,000	\$ 500,000
	Agriculture Facilities Projects	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
	Albion Dam	\$ 3,757,997	\$ -	\$ 341,636	\$ 3,416,361	\$ -	\$ -	\$ -
	Aquatics Facility Repairs	\$ 976,000	\$ -	\$ -	\$ 723,000	\$ -	\$ 253,000	\$ -
	Barker Gravity Pipeline Repair	\$ 11,373,144	\$ 1,559,811	\$ 1,622,204	\$ 1,687,092	\$ 2,083,559	\$ 2,166,901	\$ 2,253,577
	Barker-Kossler Penstock Repair	\$ 116,986	\$ 116,986	\$ -	\$ -	\$ -	\$ -	\$ -
	Betasso Hydroelectric / PRF	\$ 880,000	\$ 400,000	\$ 480,000	\$ -	\$ -	\$ -	\$ -
	Betasso Storage Tank Rehabilitation	\$ 292,465	\$ 292,465	\$ -	\$ -	\$ -	\$ -	\$ -
	BMoCA - Electrical Upgrade	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Canyon Hydro	\$ 90,000	\$ -	\$ 90,000	\$ -	\$ -	\$ -	\$ -
	Boulder Reservoir	\$ 118,434	\$ -	\$ -	\$ -	\$ 118,434	\$ -	\$ -
	Boulder Reservoir South Improvement	\$ 3,000,000	\$ 1,500,000	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -
	Collection System Monitoring	\$ 900,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
	Columbia Cemetery Construction	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Condition Assessment Program	\$ 3,514,976	\$ -	\$ 648,960	\$ 674,918	\$ 701,915	\$ 729,992	\$ 759,191
	Court Repairs and Resurfacing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Cultural Resource/Facility Restorat	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
	Data Backup and Disaster Recovery	\$ 122,234	\$ 41,895	\$ 80,339	\$ -	\$ -	\$ -	\$ -
	Database Hardware Replacement	\$ 77,900	\$ -	\$ -	\$ 25,900	\$ 42,000	\$ 10,000	\$ -
	Deficient Street Light Pole Replace	\$ 749,000	\$ 265,000	\$ -	\$ 121,000	\$ 121,000	\$ 121,000	\$ 121,000
	Distribution Waterline Replacement	\$ 23,129,706	\$ 3,487,078	\$ 3,626,562	\$ 3,771,624	\$ 3,922,489	\$ 4,079,389	\$ 4,242,564
	Downtown 14th St Prkg Lot Improve	\$ 150,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
	Downtown Parking Garage Elevators	\$ 278,200	\$ 278,200	\$ -	\$ -	\$ -	\$ -	\$ -
	Downtown Parking Garage Major Maint	\$ 1,500,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
	Downtown Pearl St Mall Amenity Repl	\$ 750,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
	EAB Response Measures	\$ 2,440,000	\$ 220,000	\$ 220,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
	Ecological System Maintenance/Restr	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
	End User Device Replacement	\$ 3,576,372	\$ 619,147	\$ 567,449	\$ 604,629	\$ 570,950	\$ 561,350	\$ 652,846
	Facilities Maintenance	\$ 1,700,000	\$ 200,000	\$ 250,000	\$ 300,000	\$ 300,000	\$ 325,000	\$ 325,000
	Farmer's Ditch (610WA55000)	\$ 108,160	\$ -	\$ -	\$ 108,160	\$ -	\$ -	\$ -
	Fire Stations Major Maintenance	\$ 845,000	\$ 126,000	\$ 132,000	\$ 138,000	\$ 145,000	\$ 152,000	\$ 152,000
	Flatiron Golf Course Repairs	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ -
	Fleet - System Repairs/Replacements	\$ 460,000	\$ 80,000	\$ 220,000	\$ -	\$ 80,000	\$ -	\$ 80,000
	Four Mile Creek (555PM15005)	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -

Table 2-2: 2017-2022 Funding Summary By Project Type (Cont.)

Project Type	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
CIP-CAPITAL MAINTENANCE (Cont.)	Type Total	\$ 165,356,918	\$ 18,917,635	\$ 30,699,371	\$ 24,461,693	\$ 37,790,865	\$ 24,492,489	\$ 28,994,866
	Goose Lake Dam	\$ 4,942,726	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ 4,867,726
	Hydro Facilities Rehab Program	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	IBM Lift Station Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Interceptor Sewer Rehabilitation	\$ 10,184,920	\$ -	\$ 10,184,920	\$ -	\$ -	\$ -	\$ -
	Island Lake Dam	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -
	Kossler Dam	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
	Lakewood Pipeline	\$ 316,330	\$ -	\$ -	\$ 316,330	\$ -	\$ -	\$ -
	Major Capital Reconstruction	\$ 4,800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000
	Major Street Reconstruction	\$ 2,304,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000
	Major Trail Maintenance	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
	Martin Park Shelter Major Maint	\$ 169,000	\$ -	\$ -	\$ -	\$ -	\$ 169,000	\$ -
	Misc Facility Maintenance Projects	\$ 2,530,000	\$ 380,000	\$ 400,000	\$ 400,000	\$ 450,000	\$ 400,000	\$ 500,000
	Miscellaneous Facility DET Proj	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	MSC - Bldg A - Replace Central AHU	\$ 80,000	\$ 80,000	\$ -	\$ -	\$ -	\$ -	\$ -
	MSC - Building A - Roof Replacement	\$ 240,000	\$ 240,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Multiuse Path Capital Maintenance	\$ 2,382,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000
	Network Hardware Replacement	\$ 2,640,351	\$ 226,968	\$ 237,155	\$ 1,112,180	\$ 671,969	\$ 209,746	\$ 182,333
	North Boulder Park Shelter Rep	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ 120,000	\$ -
	Ped Facilities Repair, Replace, ADA	\$ 3,774,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000
	Recreation Facility Repairs	\$ 2,000,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ 1,500,000
	Recreation Facility Repairs	\$ 1,000,000	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -
	Rehab Runway & Eastern Taxiway	\$ 4,935,000	\$ -	\$ 435,000	\$ -	\$ 4,500,000	\$ -	\$ -
	Reservoir Water Treatment Facility	\$ 1,000,000	\$ 200,000	\$ 200,000	\$ -	\$ 600,000	\$ -	\$ -
	Sanitary Sewer Manhole Rehabilitati	\$ 2,297,591	\$ 224,973	\$ 233,972	\$ 243,331	\$ 253,064	\$ 657,966	\$ 684,285
	Sanitary Sewer Rehabilitation	\$ 17,901,183	\$ 1,743,539	\$ 2,983,139	\$ 3,102,465	\$ 3,226,563	\$ 3,355,626	\$ 3,489,851
	Security Administration	\$ 62,861	\$ 1,862	\$ -	\$ 30,068	\$ -	\$ 30,931	\$ -
	Server Hardware Replacement	\$ 550,140	\$ 38,000	\$ 89,400	\$ 29,500	\$ 2,200	\$ 391,040	\$ -
	Sidewalk Maintenance	\$ 1,368,810	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135
	Signal Maintenance & Upgrade	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -
	Silver Lake Dam	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -
	Silver Lake Hydroelectric/PRV	\$ 250,000	\$ 50,000	\$ -	\$ 200,000	\$ -	\$ -	\$ -
	Skyscraper Dam	\$ 171,071	\$ -	\$ -	\$ -	\$ -	\$ 171,071	\$ -
	Source Pumping and Hydro Rehab	\$ 1,503,941	\$ 150,000	\$ 150,000	\$ 150,000	\$ 343,472	\$ 351,210	\$ 359,259

Table 2-2: 2017-2022 Funding Summary By Project Type (Cont.)

Project Type	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
CIP-CAPITAL MAINTENANCE (Cont.)	Type Total	\$ 165,356,918	\$ 18,917,635	\$ 30,699,371	\$ 24,461,693	\$ 37,790,865	\$ 24,492,489	\$ 28,994,866
	Storm Sewer Rehabilitation	\$ 2,852,651	\$ 281,200	\$ 292,500	\$ 304,000	\$ 632,700	\$ 657,966	\$ 684,285
	Sunshine Hydroelectric/PRV Facility	\$ 271,875	\$ 271,875	\$ -	\$ -	\$ -	\$ -	\$ -
	Transportation Coordination	\$ 3,028,751	\$ 337,500	\$ 351,000	\$ 365,000	\$ 633,000	\$ 657,966	\$ 684,285
	Utility Billing Computer System	\$ 65,000	\$ -	\$ -	\$ -	\$ 65,000	\$ -	\$ -
	Utility Billing Computer System	\$ 65,000	\$ -	\$ -	\$ -	\$ 65,000	\$ -	\$ -
	Water Treatment Equipment Replacemt	\$ 529,000	\$ 127,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 50,000	\$ 52,000
	Watershed Improvements	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -
	WWTF Cogeneration	\$ 584,481	\$ 400,000	\$ -	\$ -	\$ 184,481	\$ -	\$ -
	WWTF Digester Cleaning	\$ 136,857	\$ -	\$ -	\$ -	\$ 136,857	\$ -	\$ -
	WWTF Digester Complex	\$ 2,200,000	\$ -	\$ -	\$ 200,000	\$ 2,000,000	\$ -	\$ -
	WWTF Primary Clarifiers	\$ 11,250,000	\$ -	\$ -	\$ 900,000	\$ 9,000,000	\$ 1,350,000	\$ -
	WWTF Rehabilitation	\$ 1,500,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
	Zone 1 Transmission Pipes	\$ 1,955,998	\$ -	\$ -	\$ -	\$ 626,601	\$ 651,665	\$ 677,732
	Zone 2 Transmission Pipes	\$ 2,837,585	\$ -	\$ -	\$ -	\$ 909,016	\$ 945,377	\$ 983,192
	Zone 3 Transmission Pipes	\$ 1,459,223	\$ -	\$ -	\$ -	\$ 467,460	\$ 486,158	\$ 505,605

Project Type	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
CIP-CAPITAL PLANNING STUDIES	Type Total	\$ 2,880,000	\$ 730,000	\$ 330,000	\$ 280,000	\$ 580,000	\$ 430,000	\$ 530,000
	City Facilities Analysis/Consolidat	\$ 200,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -
	ETSA - Plan and Implementation	\$ 950,000	\$ -	\$ -	\$ 50,000	\$ 200,000	\$ 300,000	\$ 400,000
	Facility Assessments	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	Misc Space Needs and Analysis	\$ 480,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000
	OSMP Master Plan Update	\$ 500,000	\$ 300,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -
	Parks and Rec Master Plan	\$ 250,000	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -
	Trans Corridor 30th & Colorado	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Yard/Maintenance Facility Site Plan	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -

Table 2-2: 2017-2022 Funding Summary By Project Type (Cont.)

Project Type	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
CIP-LAND ACQUISITION	Type Total	\$ 37,862,941	\$ 6,950,000	\$ 7,374,000	\$ 8,133,000	\$ 5,360,000	\$ 5,134,285	\$ 4,911,656
	Boulder Junction Rail Plaza	\$ 1,874,000	\$ -	\$ 374,000	\$ 1,500,000	\$ -	\$ -	\$ -
	Mineral Rights Acquisition	\$ 600,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
	New Property Stabilization	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
	OSMP Campus Relocation	\$ 4,400,000	\$ 1,400,000	\$ 1,400,000	\$ 1,000,000	\$ 200,000	\$ 200,000	\$ 200,000
	OSMP Real Estate Acquisition	\$ 24,750,000	\$ 4,500,000	\$ 4,500,000	\$ 4,500,000	\$ 4,000,000	\$ 3,750,000	\$ 3,500,000
	Preflood Property Acquisition	\$ 3,838,941	\$ 550,000	\$ 600,000	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656
	Water Rights Acquisition	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000

Project Type	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
CIP-NEW FACILITY/INFRASTRUCTUR	Type Total	\$ 63,492,000	\$ 6,117,000	\$ 32,675,000	\$ 7,100,000	\$ 8,850,000	\$ 4,350,000	\$ 4,400,000
	30th St and Colorado Bike/Ped	\$ 5,200,000	\$ 600,000	\$ 4,600,000	\$ -	\$ -	\$ -	\$ -
	30th St and Colorado Bike/Ped	\$ 2,000,000	\$ 700,000	\$ 1,300,000	\$ -	\$ -	\$ -	\$ -
	Barker Dam Hydroelectric	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000
	Baseline Underpass Broadway	\$ 700,000	\$ 700,000	\$ -	\$ -	\$ -	\$ -	\$ -
	BJ Traffic Signal Bluff St & 30th	\$ 228,000	\$ 228,000	\$ -	\$ -	\$ -	\$ -	\$ -
	BJ Traffic Signal Jct & Valmont	\$ 304,000	\$ 304,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Junction - Develop	\$ 75,000	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Junction Pocket Park	\$ 700,000	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -
	Boulder Slough Multiuse Path	\$ 435,000	\$ 435,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Slough Multiuse Path	\$ 125,000	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Carter Lake Hydroelectric	\$ 2,800,000	\$ -	\$ 50,000	\$ 250,000	\$ 2,500,000	\$ -	\$ -
	Multiuse Path - Enhancements	\$ 1,350,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000
	Ped Facs Enh Missing Links	\$ 750,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
	South Boulder Creek Phase I	\$ 26,075,000	\$ 750,000	\$ 25,325,000	\$ -	\$ -	\$ -	\$ -
	TIP Local Match/TMP	\$ 18,200,000	\$ 1,500,000	\$ 700,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000
	Valmont City Park - South	\$ 3,000,000	\$ -	\$ -	\$ 1,000,000	\$ 2,000,000	\$ -	\$ -
	Valmont City Park Development	\$ 1,000,000	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -
	Violet Neighborhood Park	\$ 500,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -

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City of Boulder
FUNDING BY FUND
2017–2022 Capital Improvement Program

One or more of the following 17 funds and funding sources are proposed for the CIP projects:

- .25 Cent Sales Tax Fund
- Airport Fund
- Boulder Junction Improvement Fund
- Capital Development Fund
- Computer Replacement Fund
- Downtown Commercial District Fund
- Facility Renovation and Replacement Fund
- General Fund
- Greenways Program
- Lottery Fund
- Open Space Fund
- Permanent Parks and Recreation Fund
- Stormwater 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 2016 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.

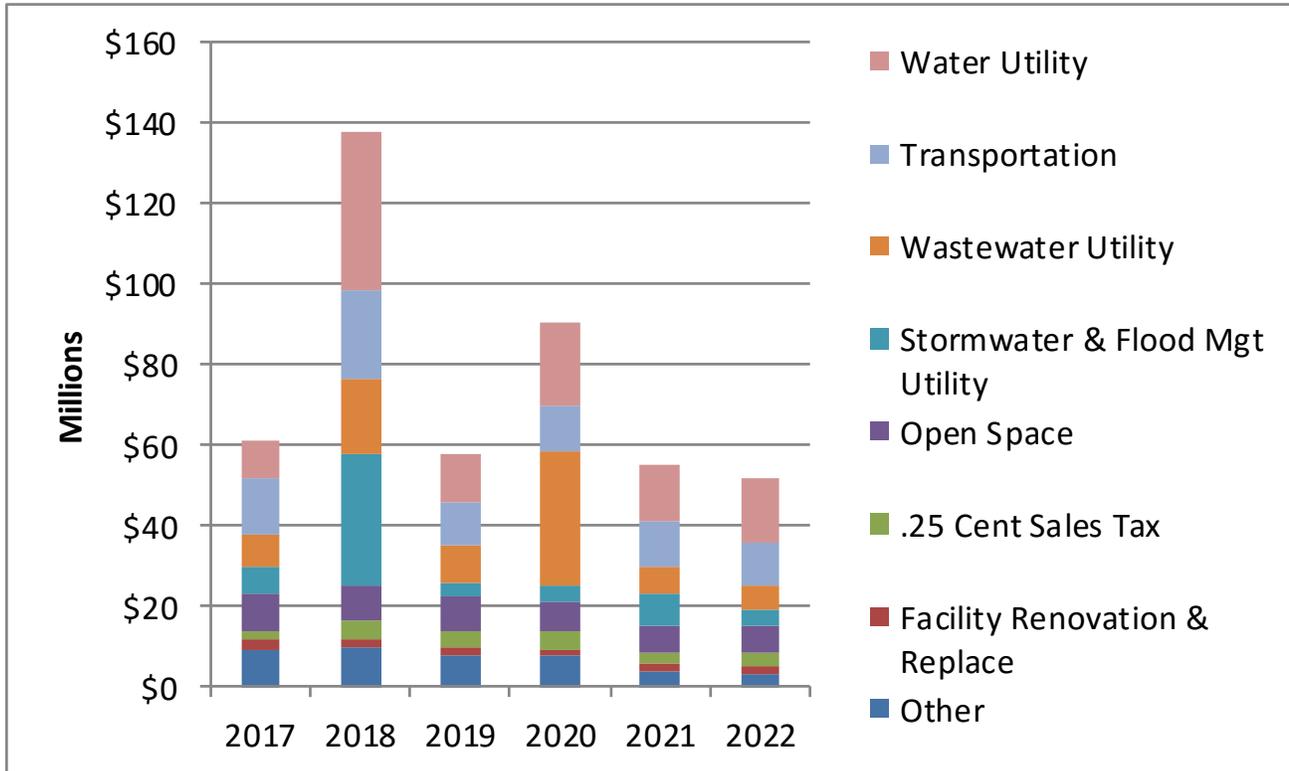
Similar to the department distributions described earlier in this section, the Transportation and



Utility Funds are the largest contributors to the city's 2017-2022 CIP.

Figure 2-5 shows the distribution of six year funding by fund.

Figure 2-4: 2017-2022 Funding by Fund



Other includes the General Fund, Computer Replacement Fund, Boulder Junction Capital Improvement Fund, Airport Fund, Downtown Commercial District Fund, Lottery Fund, Transportation Development Fund, and Capital Development Fund.

Table 2-3: 2017-2022 Funding Summary by Fund

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
.25 Cent Sales Tax	Fund Total	\$ 21,795,200	\$ 2,215,200	\$ 4,292,000	\$ 4,572,000	\$ 4,572,000	\$ 2,572,000	\$ 3,572,000
Airport	Fund Total	\$ 4,935,000	\$ -	\$ 435,000	\$ -	\$ 4,500,000	\$ -	\$ -
Bldr Junction Cap Imprvmt	Fund Total	\$ 3,181,000	\$ 957,000	\$ 724,000	\$ 1,500,000	\$ -	\$ -	\$ -
Capital Development	Fund Total	\$ 7,450,000	\$ 2,200,000	\$ 3,050,000	\$ 2,050,000	\$ 50,000	\$ 50,000	\$ 50,000
Computer Replacement	Fund Total	\$ 7,029,858	\$ 927,873	\$ 974,343	\$ 1,802,277	\$ 1,287,119	\$ 1,203,067	\$ 835,179
Downtown Commercial District	Fund Total	\$ 2,678,200	\$ 678,200	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
Facility Renovation & Replace	Fund Total	\$ 11,175,000	\$ 2,311,000	\$ 1,982,000	\$ 1,891,000	\$ 1,705,000	\$ 1,624,000	\$ 1,662,000
Lottery	Fund Total	\$ 3,801,202	\$ 905,867	\$ 579,067	\$ 579,067	\$ 428,000	\$ 579,067	\$ 579,067
Open Space	Fund Total	\$ 46,455,000	\$ 9,530,000	\$ 8,885,000	\$ 8,060,000	\$ 6,810,000	\$ 6,685,000	\$ 6,485,000
Permanent Parks & Recreation	Fund Total	\$ 7,300,000	\$ 2,100,000	\$ 1,700,000	\$ 750,000	\$ 500,000	\$ 1,250,000	\$ 1,000,000
Stormwater & Flood Mgt Utility	Fund Total	\$ 59,518,551	\$ 6,244,483	\$ 32,381,155	\$ 3,903,241	\$ 4,382,290	\$ 8,356,671	\$ 4,250,711
Transportation	Fund Total	\$ 80,544,810	\$ 14,265,635	\$ 22,080,635	\$ 11,049,635	\$ 11,049,635	\$ 11,049,635	\$ 11,049,635
Transportation Development	Fund Total	\$ 5,656,000	\$ 1,355,000	\$ 2,181,000	\$ 530,000	\$ 530,000	\$ 530,000	\$ 530,000
Wastewater Utility	Fund Total	\$ 81,496,482	\$ 8,168,512	\$ 19,020,491	\$ 8,850,831	\$ 33,342,880	\$ 6,630,441	\$ 5,483,327
Water Utility	Fund Total	\$ 111,396,253	\$ 9,330,215	\$ 39,384,442	\$ 11,718,449	\$ 20,969,225	\$ 14,365,393	\$ 15,628,529
Total		\$ 454,412,556	\$ 61,188,985	\$ 138,069,133	\$ 57,656,500	\$ 90,526,149	\$ 55,295,274	\$ 51,525,448

Table 2-3: 2017-2022 Funding Summary by Fund (Cont.)

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
.25 Cent Sales Tax	Fund Total	\$ 21,795,200	\$ 2,215,200	\$ 4,292,000	\$ 4,572,000	\$ 4,572,000	\$ 2,572,000	\$ 3,572,000
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 17,355,200	\$ 1,995,200	\$ 4,072,000	\$ 3,572,000	\$ 4,072,000	\$ 2,072,000	\$ 1,572,000
	Aquatic Facility Enhancements	\$ 2,500,000	\$ -	\$ -	\$ 2,000,000	\$ -	\$ 500,000	\$ -
	General Park Improvements	\$ 5,105,200	\$ 745,200	\$ 72,000	\$ 572,000	\$ 572,000	\$ 1,572,000	\$ 1,572,000
	Lighting Ordinance Implementation	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Scott Carpenter Aquatics	\$ 5,000,000	\$ 1,000,000	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -
	Tom Watson Park Enhancements	\$ 1,500,000	\$ -	\$ -	\$ -	\$ 1,500,000	\$ -	\$ -
	Valmont South City Park	\$ 3,000,000	\$ -	\$ -	\$ 1,000,000	\$ 2,000,000	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 4,440,000	\$ 220,000	\$ 220,000	\$ 1,000,000	\$ 500,000	\$ 500,000	\$ 2,000,000
	EAB Response Measures	\$ 2,440,000	\$ 220,000	\$ 220,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
	Recreation Facility Repairs	\$ 2,000,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ 1,500,000

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Airport	Fund Total	\$ 4,935,000	\$ -	\$ 435,000	\$ -	\$ 4,500,000	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 4,935,000	\$ -	\$ 435,000	\$ -	\$ 4,500,000	\$ -	\$ -
	Rehab Runway & Eastern Taxiway	\$ 4,935,000	\$ -	\$ 435,000	\$ -	\$ 4,500,000	\$ -	\$ -

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Bldr Junction Cap Imprvmt	Fund Total	\$ 3,181,000	\$ 957,000	\$ 724,000	\$ 1,500,000	\$ -	\$ -	\$ -
CIP-LAND ACQUISITION	Subtotal	\$ 1,874,000	\$ -	\$ 374,000	\$ 1,500,000	\$ -	\$ -	\$ -
	Boulder Junction Rail Plaza	\$ 1,874,000	\$ -	\$ 374,000	\$ 1,500,000	\$ -	\$ -	\$ -
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 1,307,000	\$ 957,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -
	BJ Traffic Signal Bluff St & 30th	\$ 228,000	\$ 228,000	\$ -	\$ -	\$ -	\$ -	\$ -
	BJ Traffic Signal Jct & Valmont	\$ 304,000	\$ 304,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Junction - Develop Coord	\$ 75,000	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Junction Pocket Park	\$ 700,000	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -

Table 2-3: 2017-2022 Funding Summary by Fund (Cont.)

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Capital Development	Fund Total	\$ 7,450,000	\$ 2,200,000	\$ 3,050,000	\$ 2,050,000	\$ 50,000	\$ 50,000	\$ 50,000
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 5,650,000	\$ 2,150,000	\$ 3,000,000	\$ 500,000	\$ -	\$ -	\$ -
	Brenton Building - Renovation	\$ 2,150,000	\$ 2,150,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Reservoir Trail	\$ 500,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -
	Scott Carpenter Aqua Enhancements	\$ 3,000,000	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	Miscellaneous Facility DET Proj	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 1,500,000	\$ -	\$ -	\$ 1,500,000	\$ -	\$ -	\$ -
	Valmont City Park Development	\$ 1,000,000	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -
	Violet Neighborhood Park	\$ 500,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Computer Replacement	Fund Total	\$ 7,029,858	\$ 927,873	\$ 974,343	\$ 1,802,277	\$ 1,287,119	\$ 1,203,067	\$ 835,179
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 7,029,858	\$ 927,873	\$ 974,343	\$ 1,802,277	\$ 1,287,119	\$ 1,203,067	\$ 835,179
	Data Backup and Disaster Recovery	\$ 122,234	\$ 41,895	\$ 80,339	\$ -	\$ -	\$ -	\$ -
	Database Hardware Replacement	\$ 77,900	\$ -	\$ -	\$ 25,900	\$ 42,000	\$ 10,000	\$ -
	End User Device Replacement	\$ 3,576,372	\$ 619,147	\$ 567,449	\$ 604,629	\$ 570,950	\$ 561,350	\$ 652,846
	Network Hardware Replacement	\$ 2,640,351	\$ 226,968	\$ 237,155	\$ 1,112,180	\$ 671,969	\$ 209,746	\$ 182,333
	Security Administration	\$ 62,861	\$ 1,862	\$ -	\$ 30,068	\$ -	\$ 30,931	\$ -
	Server Hardware Replacement	\$ 550,140	\$ 38,000	\$ 89,400	\$ 29,500	\$ 2,200	\$ 391,040	\$ -

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Downtown Commercial District	Fund Total	\$ 2,678,200	\$ 678,200	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 2,678,200	\$ 678,200	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
	Downtown 14th St Prkg Lot Improve	\$ 150,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
	Downtown Parking Garage Elevators	\$ 278,200	\$ 278,200	\$ -	\$ -	\$ -	\$ -	\$ -
	Downtown Parking Garage Major	\$ 1,500,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
	Downtown Pearl St Mall Amenity	\$ 750,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000

Table 2-3: 2017-2022 Funding Summary by Fund (Cont.)

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Open Space	Fund Total	\$ 46,455,000	\$ 9,530,000	\$ 8,885,000	\$ 8,060,000	\$ 6,810,000	\$ 6,685,000	\$ 6,485,000
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 7,415,000	\$ 2,190,000	\$ 1,635,000	\$ 1,010,000	\$ 910,000	\$ 910,000	\$ 760,000
	Confluence Area Restoration Phase	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Farm Site Improvements	\$ 360,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000
	Flood Eng. Trails	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Flood Trails	\$ 305,000	\$ 305,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Goodhue Ditch Fish Passage	\$ 300,000	\$ -	\$ 300,000	\$ -	\$ -	\$ -	\$ -
	NTSA Implementation	\$ 2,500,000	\$ 400,000	\$ 500,000	\$ 500,000	\$ 400,000	\$ 400,000	\$ 300,000
	OSMP Innovations	\$ 650,000	\$ 75,000	\$ 175,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
	S.Bldr Crk at E.Bldr Ditch Const	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Visitor Infrastructure Amenities	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
	WTSA Implementation	\$ 1,350,000	\$ 400,000	\$ 400,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 100,000
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 5,440,000	\$ 640,000	\$ 750,000	\$ 900,000	\$ 1,000,000	\$ 1,025,000	\$ 1,125,000
	Agriculture Facilities Projects	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
	Cultural Resource/Facility	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
	Ecological System	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
	Facilities Maintenance	\$ 1,700,000	\$ 200,000	\$ 250,000	\$ 300,000	\$ 300,000	\$ 325,000	\$ 325,000
	Major Trail Maintenance	\$ 935,000	\$ 110,000	\$ 125,000	\$ 150,000	\$ 175,000	\$ 175,000	\$ 200,000
CIP-CAPITAL PLANNING STUDIES	Subtotal	\$ 1,450,000	\$ 300,000	\$ 100,000	\$ 150,000	\$ 200,000	\$ 300,000	\$ 400,000
	ETSA - Plan and Implementation	\$ 950,000	\$ -	\$ -	\$ 50,000	\$ 200,000	\$ 300,000	\$ 400,000
	OSMP Master Plan Update	\$ 500,000	\$ 300,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -
CIP-LAND ACQUISITION	Subtotal	\$ 32,150,000	\$ 6,400,000	\$ 6,400,000	\$ 6,000,000	\$ 4,700,000	\$ 4,450,000	\$ 4,200,000
	Mineral Rights Acquisition	\$ 600,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
	New Property Stabilization	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
	OSMP Campus Relocation	\$ 4,400,000	\$ 1,400,000	\$ 1,400,000	\$ 1,000,000	\$ 200,000	\$ 200,000	\$ 200,000
	OSMP Real Estate Acquisition	\$ 24,750,000	\$ 4,500,000	\$ 4,500,000	\$ 4,500,000	\$ 4,000,000	\$ 3,750,000	\$ 3,500,000
	Water Rights Acquisition	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000

Table 2-3: 2017-2022 Funding Summary by Fund (Cont.)

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Permanent Parks & Recreation	Fund Total	\$ 7,300,000	\$ 2,100,000	\$ 1,700,000	\$ 750,000	\$ 500,000	\$ 1,250,000	\$ 1,000,000
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 3,450,000	\$ 500,000	\$ 200,000	\$ 750,000	\$ 250,000	\$ 750,000	\$ 1,000,000
	Athletic Field Development	\$ 2,950,000	\$ 500,000	\$ 200,000	\$ 250,000	\$ 250,000	\$ 750,000	\$ 1,000,000
	Boulder Reservoir 51st Street Path	\$ 500,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 3,500,000	\$ 1,500,000	\$ 1,500,000	\$ -	\$ -	\$ 500,000	\$ -
	Boulder Reservoir South	\$ 3,000,000	\$ 1,500,000	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -
	Flatiron Golf Course Repairs	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ -
CIP-CAPITAL PLANNING STUDIES	Subtotal	\$ 350,000	\$ 100,000	\$ -	\$ -	\$ 250,000	\$ -	\$ -
	Parks and Rec Master Plan	\$ 250,000	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -
	Yard/Maintenance Facility Site	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Stormwater & Flood Mgt Utility	Fund Total	\$ 59,518,551	\$ 6,244,483	\$ 32,381,155	\$ 3,903,241	\$ 4,382,290	\$ 8,356,671	\$ 4,250,711
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 23,658,208	\$ 4,325,783	\$ 5,812,655	\$ 2,601,241	\$ 2,391,590	\$ 6,356,454	\$ 2,170,485
	Boulder Creek Flood Mitigation	\$ 1,250,000	\$ -	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -
	Fourmile - Upstream of Upland Ave	\$ 5,000,000	\$ 3,000,000	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -
	Goose Creek 19th to Folsom	\$ 4,050,000	\$ -	\$ -	\$ 1,500,000	\$ 1,250,000	\$ 500,000	\$ 800,000
	Greenways Program - Flood fund	\$ 626,273	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 138,773
	Gregory Creek Flood Mitigation	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -
	Local Drainage Improvements	\$ 5,237,645	\$ 759,283	\$ 789,655	\$ 821,241	\$ 854,090	\$ 986,949	\$ 1,026,427
	Skunk Creek Flood Mitigation	\$ 700,000	\$ 200,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
	Stormwater Quality Improvements	\$ 1,119,675	\$ 169,000	\$ 175,500	\$ 182,500	\$ 190,000	\$ 197,390	\$ 205,285
	SW MGMT - Bear Canyon Creek	\$ 324,846	\$ -	\$ -	\$ -	\$ -	\$ 324,846	\$ -
	SW MGMT - Middle Boulder Creek	\$ 3,862,873	\$ -	\$ -	\$ -	\$ -	\$ 3,862,873	\$ -
	SW MGMT - Wonderland Creek	\$ 386,896	\$ -	\$ -	\$ -	\$ -	\$ 386,896	\$ -
	Twomile Canyon Creek	\$ 600,000	\$ 100,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 5,946,402	\$ 618,700	\$ 643,500	\$ 669,000	\$ 1,330,700	\$ 1,315,932	\$ 1,368,570
	Storm Sewer Rehabilitation	\$ 2,852,651	\$ 281,200	\$ 292,500	\$ 304,000	\$ 632,700	\$ 657,966	\$ 684,285
	Transportation Coordination	\$ 3,028,751	\$ 337,500	\$ 351,000	\$ 365,000	\$ 633,000	\$ 657,966	\$ 684,285
	Utility Billing Computer System	\$ 65,000	\$ -	\$ -	\$ -	\$ 65,000	\$ -	\$ -
CIP-LAND ACQUISITION	Subtotal	\$ 3,838,941	\$ 550,000	\$ 600,000	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656
	Preflood Property Acquisition	\$ 3,838,941	\$ 550,000	\$ 600,000	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 26,075,000	\$ 750,000	\$ 25,325,000	\$ -	\$ -	\$ -	\$ -
	South Boulder Creek Phase I	\$ 26,075,000	\$ 750,000	\$ 25,325,000	\$ -	\$ -	\$ -	\$ -

Table 2-3: 2017-2022 Funding Summary by Fund (Cont.)

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Transportation	Fund Total	\$ 82,044,810	\$ 14,515,635	\$ 22,330,635	\$ 11,299,635	\$ 11,299,635	\$ 11,299,635	\$ 11,299,635
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 39,932,000	\$ 8,127,500	\$ 14,242,500	\$ 4,390,500	\$ 4,390,500	\$ 4,390,500	\$ 4,390,500
	19th St (Norwood to Sumac)	\$ 744,000	\$ 567,000	\$ 177,000	\$ -	\$ -	\$ -	\$ -
	Broadway Recon Violet to 36	\$ 6,825,000	\$ 1,250,000	\$ 5,575,000	\$ -	\$ -	\$ -	\$ -
	Foothills & Colorado Underpass	\$ 4,400,000	\$ 960,000	\$ 3,440,000	\$ -	\$ -	\$ -	\$ -
	Greenways Program Transportation	\$ 585,000	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500
	Neighborhood Traffic Mitigation	\$ 1,500,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
	Pavement Management Program	\$ 24,258,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000
	Quiet Zone Implementation	\$ 1,320,000	\$ 660,000	\$ 660,000	\$ -	\$ -	\$ -	\$ -
	Valmont & 29th Hazard Elimination	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 15,377,810	\$ 2,703,135	\$ 2,438,135	\$ 2,559,135	\$ 2,559,135	\$ 2,559,135	\$ 2,559,135
	Deficient Street Light Pole	\$ 749,000	\$ 265,000	\$ -	\$ 121,000	\$ 121,000	\$ 121,000	\$ 121,000
	Major Capital Reconstruction	\$ 4,800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000
	Major Street Reconstruction	\$ 2,304,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000
	Multiuse Path Capital Maintenance	\$ 2,382,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000
	Ped Facilities Repair, Replace,	\$ 3,774,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000
	Sidewalk Maintenance	\$ 1,368,810	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135
CIP-CAPITAL PLANNING STUDIES	Subtotal	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Trans Corridor 30th & Colorado	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 26,635,000	\$ 3,585,000	\$ 5,650,000	\$ 4,350,000	\$ 4,350,000	\$ 4,350,000	\$ 4,350,000
	30th St and Colorado Bike/Ped	\$ 5,200,000	\$ 600,000	\$ 4,600,000	\$ -	\$ -	\$ -	\$ -
	Baseline Underpass Broadway to	\$ 700,000	\$ 700,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Slough Multiuse Path 30th	\$ 435,000	\$ 435,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Multiuse Path - Enhancements	\$ 1,350,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000
	Ped Facs Enh Missing Links	\$ 750,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
	TIP Local Match/TMP Implementation	\$ 18,200,000	\$ 1,500,000	\$ 700,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000

Table 2-3: 2017-2022 Funding Summary by Fund (Cont.)

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Water Utility	Fund Total	\$ 111,396,253	\$ 9,330,215	\$ 39,384,442	\$ 11,718,449	\$ 20,969,225	\$ 14,365,393	\$ 15,628,529
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 52,791,612	\$ 2,625,000	\$ 32,449,040	\$ 1,668,882	\$ 9,148,194	\$ 5,413,622	\$ 1,486,874
	Barker Dam and Reservoir	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Barker Dam Outlet	\$ 9,466,060	\$ 175,000	\$ -	\$ 835,551	\$ 8,455,509	\$ -	\$ -
	Devil's Thumb Storage Tank	\$ 1,486,874	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,486,874
	Green Lake 2 Dam	\$ 561,773	\$ -	\$ -	\$ -	\$ 75,000	\$ 486,773	\$ -
	Lakewood Dam	\$ 124,707	\$ -	\$ 124,707	\$ -	\$ -	\$ -	\$ -
	Lakewood Hydroelectric/PRV	\$ 300,000	\$ -	\$ -	\$ 300,000	\$ -	\$ -	\$ -
	NCWCD Conveyance - Carter Lake	\$ 34,200,000	\$ 2,150,000	\$ 32,050,000	\$ -	\$ -	\$ -	\$ -
	Pearl Street Hydro/PRV Facility	\$ 267,664	\$ -	\$ 24,333	\$ 243,331	\$ -	\$ -	\$ -
	Source Water Monitoring/Protection	\$ 300,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -
	Utility Billing Computer System	\$ 125,000	\$ -	\$ -	\$ -	\$ 125,000	\$ -	\$ -
	Water System Security/Quality	\$ 390,000	\$ 150,000	\$ 150,000	\$ 90,000	\$ -	\$ -	\$ -
	Wittemyer Ponds	\$ 5,519,534	\$ -	\$ -	\$ 100,000	\$ 492,685	\$ 4,926,849	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 55,754,641	\$ 6,705,215	\$ 6,885,402	\$ 9,799,567	\$ 9,321,031	\$ 8,951,771	\$ 14,091,655
	Albion Dam	\$ 3,757,997	\$ -	\$ 341,636	\$ 3,416,361	\$ -	\$ -	\$ -
	Barker Gravity Pipeline Repair	\$ 11,373,144	\$ 1,559,811	\$ 1,622,204	\$ 1,687,092	\$ 2,083,559	\$ 2,166,901	\$ 2,253,577
	Betasso Hydroelectric / PRF	\$ 880,000	\$ 400,000	\$ 480,000	\$ -	\$ -	\$ -	\$ -
	Betasso Storage Tank	\$ 292,465	\$ 292,465	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Canyon Hydro	\$ 90,000	\$ -	\$ 90,000	\$ -	\$ -	\$ -	\$ -
	Boulder Reservoir	\$ 118,434	\$ -	\$ -	\$ -	\$ 118,434	\$ -	\$ -
	Distribution Waterline Replacement	\$ 23,129,706	\$ 3,487,078	\$ 3,626,562	\$ 3,771,624	\$ 3,922,489	\$ 4,079,389	\$ 4,242,564
	Farmer's Ditch	\$ 108,160	\$ -	\$ -	\$ 108,160	\$ -	\$ -	\$ -
	Goose Lake Dam	\$ 4,942,726	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ 4,867,726
	Hydro Facilities Rehab Program	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	Island Lake Dam	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -
	Kossler Dam	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
	Lakewood Pipeline	\$ 316,330	\$ -	\$ -	\$ 316,330	\$ -	\$ -	\$ -
	Reservoir Water Treatment Facility	\$ 1,000,000	\$ 200,000	\$ 200,000	\$ -	\$ 600,000	\$ -	\$ -
	Silver Lake Dam	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -
	Silver Lake Hydroelectric/PRV	\$ 250,000	\$ 50,000	\$ -	\$ 200,000	\$ -	\$ -	\$ -
	Skyscraper Dam	\$ 171,071	\$ -	\$ -	\$ -	\$ -	\$ 171,071	\$ -
	Source Pumping and Hydro Rehab	\$ 1,503,941	\$ 150,000	\$ 150,000	\$ 150,000	\$ 343,472	\$ 351,210	\$ 359,259
	Sunshine Hydroelectric/PRV	\$ 271,875	\$ 271,875	\$ -	\$ -	\$ -	\$ -	\$ -
	Water Treatment Equipment	\$ 529,000	\$ 127,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 50,000	\$ 52,000

Table 2-3: 2017-2022 Funding Summary by Fund (Cont.)

Fund	Project Title	Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Water Utility (Cont.)	Fund Total	\$ 111,396,253	\$ 9,330,215	\$ 39,384,442	\$ 11,718,449	\$ 20,969,225	\$ 14,365,393	\$ 15,628,529
CIP-CAPITAL MAINTENANCE (Cont.)	Subtotal	\$ 55,754,641	\$ 6,705,215	\$ 6,885,402	\$ 9,799,567	\$ 9,321,031	\$ 8,951,771	\$ 14,091,655
	Watershed Improvements	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -
	Zone 1 Transmission Pipes	\$ 1,955,998	\$ -	\$ -	\$ -	\$ 626,601	\$ 651,665	\$ 677,732
	Zone 2 Transmission Pipes	\$ 2,837,585	\$ -	\$ -	\$ -	\$ 909,016	\$ 945,377	\$ 983,192
	Zone 3 Transmission Pipes	\$ 1,459,223	\$ -	\$ -	\$ -	\$ 467,460	\$ 486,158	\$ 505,605
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 2,850,000	\$ -	\$ 50,000	\$ 250,000	\$ 2,500,000	\$ -	\$ 50,000
	Barker Dam Hydroelectric	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000
	Carter Lake Hydroelectric	\$ 2,800,000	\$ -	\$ 50,000	\$ 250,000	\$ 2,500,000	\$ -	\$ -



City of Boulder
**SPECIAL HIGHLIGHT ON
CAPITAL IMPROVEMENT BOND**
2017–2022 Capital Improvement Program

Project Status

This Special Highlight on the Capital Improvement Bond section details a significant, multi-department, capital improvement effort that is wrapping up in the City of Boulder. In the November 2011 election, City of Boulder voters approved a measure, by a 3-to-1 margin, that allowed the city to leverage existing revenues to bond for up to \$49 million to fund capital projects that address significant deficiencies and high priority infrastructure improvements throughout the community. The bond offering generated approximately \$54.6 million in proceeds after a successful issuance and the measure did not raise taxes because the city was able to leverage existing revenues. The bond has a 20-year payback and it is stipulated that all funds be spent by March 22, 2017. Overall, the capital improvement effort consisted of 26 project categories and more than 85 individual projects. The 26 project categories are named below with additional information on the specific projects available on the city's website: www.bouldercolorado.gov/bondprojects. Only 6% of the projects are still under construction and the city is on target to hit the spending deadline.

1. Boulder Reservoir Infrastructure Improvements
2. Columbia Cemetery Upgrades and Enhancements
3. Park Shelter Replacements and Improvements
4. Existing Park and Recreation Facility Renovations
5. South Boulder Recreation Center Floor Replacement
6. Downtown Commercial District Improvements
7. Main Library Renovation
8. Replace Financial and Human Resources Software
9. Major Business Software Replacement
10. Facility Electrical, Plumbing, HVAC and Elevator Replacements
11. Facility Parking Lot Repair
12. Facility Outdoor Lighting

Highlights at a Glance

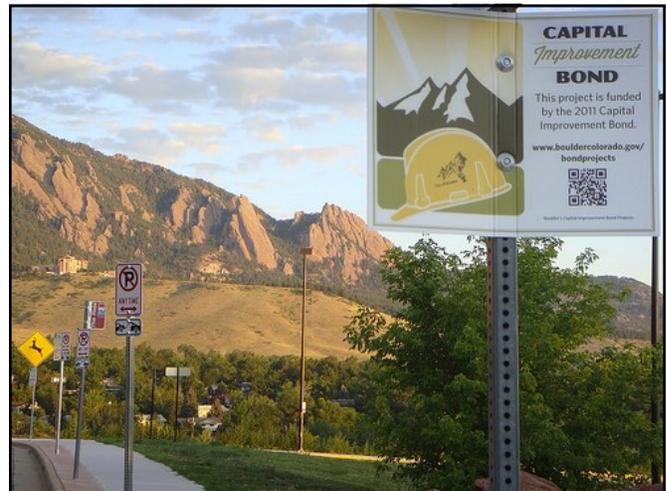
- 26 categories containing a total of **nearly 85** individual projects:
 - ◆ 6% under construction
 - ◆ 94% completed
- **98%** of total funding has been spent or encumbered as of June 30, 2016.



- 13. Facility ADA Compliance
- 14. Fire Station #8
- 15. Replace Substandard Bridges, Structures, Signs and Systems
- 16. Arterial Road Reconstruction
- 17. Road Pavement Repair
- 18. Road Reconstruction
- 19. Transportation Boulder Junction Improvements
- 20. Transportation Transit System Enhancements
- 21. Transportation New Multi-Use Path Connections
- 22. Transportation Pedestrian Enhancements
- 23. Transportation Intersection Improvements
- 24. Transportation Bike System Enhancements
- 25. Police Equipment
- 26. Police Equipment Upgrades and Replacement

Implementation

The city has closely monitored construction progress and spending plans for each project throughout the life of capital bond program. Table 4-1 shows the annual expenditure plan for each project for 2011 through 2016. As previously mentioned, the city is on target to spend all bond proceeds before March 22, 2017.



Sign highlighting a Capital Improvement Bond Program off of Gillaspie Drive.



TABLE 3-1: 2011-2016 Spend Plan

CAPITAL IMPROVEMENT BOND							
	Total Amount	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Projected
Arterial Road Reconstruction	\$ 5,280,000	\$ -	\$ 292,179	\$ 1,879,397	\$ 2,682,984	\$ 129,772	\$ 295,669
Boulder Reservoir Infrastructure Improvements	3,300,915	-	794,813	1,312,067	1,110,253	44,860	38,922
Columbia Cemetery Upgrades and Enhancements	637,000	-	87,280	237,741	151,387	160,015	577
Downtown Commercial District Improvements	2,935,000	-	79,089	979,599	1,408,417	373,479	94,415
Existing Park and Recreation Facility Renovations	4,065,462	-	1,605,009	874,086	956,841	589,619	39,907
Facility ADA Compliance	572,259	-	50,425	49,486	106,546	365,802	-
Facility Electrical, Plumbing, HVAC and Elevator Rep.	1,573,701	-	466,364	1,008,990	64,400	25,617	8,330
Facility Outdoor Lighting	71,688	-	8,611	48,196	13,744	1,136	-
Facility Parking Lot Repair	413,312	-	19,754	271,706	92,836	1,112	27,904
Main Library Renovations	3,200,000	-	12,481	289,353	2,202,879	669,113	26,175
Major Business Software Replacement	821,600	-	25,000	451,008	249,524	79,503	16,565
New Wildland Fire Station	3,077,718	-	20,327	182,000	2,043,872	521,046	310,473
Park Shelter Replacements and Improvements	1,074,538	-	355,535	239,885	41,018	438,100	-
Police Equipment	253,290	-	71,224	63,668	96,412	-	21,986
Police Equipment Upgrades and Replacement	1,020,050	-	369,938	451,718	-	-	198,395
Replace Financial and Human Resources Software Sys.	4,202,496	-	475,563	1,130,808	1,786,381	809,745	-
Road Pavement Repair	5,000,000	-	1,568,616	1,947,932	1,483,452	-	-
Road Reconstruction	2,500,000	-	525,960	713,741	1,260,298	-	-
South Boulder Recreation Center Floor Replacement	281,748	-	205,237	76,511	-	-	-
Transportation Bike System Enhancements	300,000	5,120	106,234	114,836	73,810	-	-
Transportation Boulder Junction Improvements	5,757,504	-	855,192	2,083,198	2,594,511	-	224,604
Transportation Intersection Improvements	423,873	-	13,454	8,205	142,921	32,100	227,192
Transportation New Multi Use Path connections	2,076,127	5,229	354,468	235,076	1,353,185	128,169	-
Transportation Pedestrian Enhancements	850,000	5,658	285,531	304,954	253,857	-	-
Transportation Transit System Enhancements	608,000	-	127,041	232,653	248,306	-	-
Total	\$ 54,614,974	\$ 16,006	\$ 9,034,496	\$ 15,950,138	\$ 21,786,822	\$ 5,833,715	\$ 1,993,795



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City of Boulder

SPECIAL HIGHLIGHT ON ASSET ASSESSMENT

2017–2022 Capital Improvement Program

In order to honor the commitment to “taking care of what we have” the city has embarked on a coordinated, organization-wide condition assessment that will identify ongoing capital needs necessary to maintain infrastructure, assets, and facilities for a sustainable community, thus informing strategic investments that support community priorities.

2016 Asset Assessment

One of the principles of asset management is establishing benchmark standards for each asset to achieve community desired conditions. The city has hired a consultant to evaluate the current condition of many major buildings and facilities and develop a 10-year preventative maintenance work plan for each building. The study includes \$200 million of Parks and Recreation built assets and the following 17 facilities managed by Facilities and Asset Management (FAM):

- Municipal Building
- Main Library
- Carnegie Branch Library
- George Reynolds Branch Library
- West Senior Center
- Fire Stations 1 through 7
- Public Safety Building
- Municipal Service Center A, B1 and B2 Buildings, and
- Fleet Services.

Building on this initial inventory, FAM is assisting Community Vitality with the assessment of their five parking structures – RTD, Spruce, Randolph Center, 1500 Pearl Street and 10th and Walnut. Radio infrastructure assessments are also being accomplished as part of the city-wide radio infrastructure study with results expected in late 2016.

Asset Assessment Process

On-going efforts by the Parks & Recreation Department and the Facilities and Asset Management Division have focused on development of an Asset Management System (AMS) that utilizes best practices for the life cycle design, development, operations, repair and disposal of built assets. To guide this development, best practices from three sources from leading communities have been adopted.



The facilities portfolio is typically the most valuable asset that organizations manage and are considered critical to the execution of the organization's mission. Updating facilities management practices to reflect sustainability and asset management principles for these facilities requires the application of complex, interconnected, and comprehensive facility management practices to the asset portfolio.

This includes:

1. Determining the total cost of ownership for the asset portfolio.
2. Developing systems and staff knowledge to support agency implementation of life cycle management.
3. Approval of a capital investment strategy for the agency that focuses on the organization's mission and is financially sustainable.

FIGURE 4-1: Asset Management Process



Results of the Assessment

In general, the assessments identified a much higher amount of currently deficient systems and future needs. It will be the baseline for considering a change to how the departments prioritize and fund the maintenance and replacement of these assets.

FAM

The assessment evaluated 1,680 total items in the facilities with replacement values totaling over \$20.6 million. A total of \$10.6 million is overdue for replacement with \$2.6 million deemed essential items. Those essential items were programmed into the 2017 to 2020 FAM CIP. FAM will continue to program \$50,000 a year in the CIP to continue facility assessments.

Results of the assessments will be part of the FAM Master Plan Update, which will develop facility guidelines and space needs based on departmental needs and workflow, synergies with other departments, evolutions in operating model, who they serve, how their customer interfaces with the department, assessment of condition of the building they occupy, to name just a few. Further analysis of the assessments will also assist staff in evaluating the funding model established in the 2005 update and its sustainability.



Parks & Recreation

The Parks and Recreation Department has already begun to address the first three questions above. It has inventoried all major assets department wide, calculated a portfolio CRV of approximately \$200 million, and established a baseline Facility Condition Index (FCI) from which to measure the condition of its portfolio. While the department continues to refine these findings it will now address the latter two questions concerning portfolio performance requirements and asset priorities focused on assets most critical to the department’s mission through the CIP process. Ten percent of all park assets have 45 percent of all deficiencies.



The table below illustrates the investment required over 10–years in key facilities to maintain them at 80 percent versus 90 percent condition. By maintaining facilities at a higher standard the city can increase customer satisfaction while spending less over time. The difference between maintaining facility at 90 percent over 80 percent condition saves \$840,972 and provides higher quality facilities with higher customer satisfaction over ten years.

TABLE 4–1: Cost of Maintaining P&R Facilities at 80% and 90% Condition

Major Facility	CRV	FCI	90% Standard	80% Standard	Savings	Backlog
EBRC	\$18,907,343	0.10	\$3,079,892	\$3,146,599	\$66,707	\$1,962,118
NBRC	\$21,337,047	0.06	\$5,166,970	\$5,428,246	\$261,276	\$1,377,900
SBRC	\$9,376,617	0.13	\$1,642,329	\$1,876,919	\$234,590	\$1,181,104
Res–Admin	\$1,500,000	0.31	\$837,779	\$1,062,297	\$224,518	\$471,729
Res–Boat House	\$800,000	0.14	\$129,476	\$135,551	\$6,075	\$109,738
Res–Maint	\$750,000	0.19	\$258,080	\$305,886	\$47,806	\$144,623
Totals	\$52,671,007	0.10	\$11,114,526	\$11,955,498	\$840,972	\$5,247,212



Water, Wastewater and Stormwater and Flood Utilities

The Utilities Department maintains a critical infrastructure inventory that is used to plan for the relatively short term, 6 year Utilities CIP and the long term, 20 year Utilities CIP. Age, useful life and condition of infrastructure along with risk of failure are taken into account in the development of the replacement/repair schedule.

Storm and Waste Water have assessments underway to inventory and plan needed repairs after the flood of 2013. These began as an inspection effort but was changed to a clean-out and fix program as a result of the damage and plugging of many of the lines.

In the near-term Utilities is looking to:

- Increase proactive planning as much as possible to get priority items rehabilitated or replaced within budget constraints.
- Pursue a commercial software program that would allow tracking of critical information in a database form and potentially could be used and tied into other applicable city departments.

Transportation

The Transportation Division has a functional and efficient system that monitors the condition of the assets that comprise the approximately \$2 Billion (replacement value) transportation system in the City of Boulder. Tracking the condition of the assets within the system allow staff to prioritize work activities and respond at the appropriate level of investment, whether filling a pothole and replacing a sign up to reconstructing a principal arterial or replacing a bridge. The Transportation Division routinely inspects the condition of signals, signs, markings, pavements, sidewalks, multi-use path, and bridges. In general, the average condition of transportation system assets are fair to good, however in order to keep the system at this level or even better will continue to require proactive management of the assets, and using data driven approaches to implementing the right amount of maintenance and repair at the right time within the service of life of a given asset.

Open Space and Mountain Parks

The department embarked on an asset assessment project in May 2016 and anticipate results in fall 2016. The assessment includes 280 buildings and structures including offices, shop and storage buildings; agricultural barns and sheds; and visitor facilities such as public amphitheater, shelters, sheds, outhouses and nature centers.

Asset Assessment Informing Citywide Financial Strategy

The goal of all these efforts is to develop a standardized, prioritized and on-going maintained catalog of needs. This effort will take time and resources; it will require the city to prioritize asset management initiatives as a primary responsibility of our staff, boards, and community.



Life-cycle and maintenance needs studies are essential pieces to inform unfunded needs and future financial strategies. The process will be iterative and on-going to improve transparency with the community about investment needed for long-term infrastructure maintenance in order to balance those needs with the community's desire for new facilities and services. Articulating unfunded needs to the community and decision-makers will help the community prepare for future funding and leveraging opportunities as well as inform long-term CIP funding strategies.

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City of Boulder
SPECIAL HIGHLIGHT ON
COMMUNITY, CULTURE AND SAFETY PROJECT
2017–2022 Capital Improvement Program

Introduction

The Community, Culture and Safety (CCS) project is Boulder’s first citywide, large-scale, “pay as you go” capital improvement project funded by a special sales and use tax increase. Implementation of this multi-departmental, multiyear effort is currently underway, and is consistent with 2014 voter approval, City Council support, and steering committee recommendation.

A website has been created that allows the community to track the progress of implementation of CCS projects at <https://bouldercolorado.gov/pages/community-culture-safety>. Background information on the Community, Culture and Safety project is available in the 2016–2021 CIP document at: [2016–2021 CIP Special Highlight on Community, Culture and Safety Capital Improvement Project](#).

Overview of Community, Culture and Safety Capital Improvement Project

In November 2014, Boulder voters approved the Community, Culture and Safety tax, a three-year 0.3 percent sales and use tax increase. The ballot language projected that the revenue from this temporary tax increase will yield \$27.6 million for specific projects to improve community spaces, bolster cultural projects and organizations, and enhance safety.

Project Highlights and Status

Twelve projects will be implemented with the sales and use tax funds. The individual projects are briefly described below, and details related to each project can be found on the [CCS website](#).

Highlights at a Glance

- 12 individual projects¹ :
 - ◆ 2 completed
 - ◆ 2 under construction
 - ◆ 8 in design and planning phase
- 27% of total funding has been spent or encumbered as of June, 2016.



Table 5-1: Community, Culture and Safety Project Highlights

University Hill		
Pedestrian Lighting	<p>The existing vehicle-scale lighting will be supplemented (and in some cases replaced) with new energy-efficient LED fixtures along key pedestrian corridors on University Hill.</p> <p>Status: Construction began in May 2016</p> <p>Anticipated Completion: Fall 2016</p>	\$2 million
Event Street	<p>Creation of a street designed for vehicles, pedestrians, and bicycles, as well as the ability to easily close the portion of Pennsylvania Avenue between the alley to the west and 13th Street to the east for events.</p> <p>Status: Currently in planning/design phase</p> <p>Anticipated Completion: Spring 2017</p>	\$750,000
Street Trees Improvements	<p>Design and install an irrigation system for the trees along the sidewalk. Replace failing trees and install city-standard tree grates and guards.</p> <p>Status: Work completed in June 2016</p>	\$520,000
Civic Area		
Civic Area Improvements	<p>These improvements are part of the first phase of the larger Civic Area redevelopment project and Master Plan which was adopted in July of 2015 with the park design plan approved in November of 2015. Project components include:</p> <p>Enhancements to areas north and south of Boulder Creek, including infrastructure to link the main library and creek, playgrounds and nature play areas along both sides of the creek, and improvements in the area near the Gilbert White Memorial.</p> <p>Improvements to community spaces including: the main library café/courtyard, the north library plaza, the north municipal lawn, and the sister cities plaza.</p> <p>Connectivity and access improvements, including: creating gateways (possibly via art) and related wayfinding; pathway enhancements; signage; and improved lighting across the site.</p> <p>Status: Final design is complete</p> <p>Anticipated Completion: Fall 2017</p>	\$8.7 million



Table 5-1: Community, Culture and Safety Project Highlights (Cont.)

Boulder Creek		
Path Lighting	Design and construction of lighting along five segments of the Boulder Creek Path that will provide adequate and appropriate light levels for nighttime visibility and safety by using fully controlled luminaries. Status: In planning/design phase Expected Completion: Spring 2018	\$1.04 million
Path Improvements	Design and construction along four segments of Boulder Creek Path that will add a generally-separated pedestrian path to allow a separation of bicycle and pedestrian traffic along the corridor. Status: In planning/design phase	\$885,000
Arapahoe Avenue and 13th Street Underpass	Design and construction to renovate the pedestrian and bicycle underpass at the Boulder Creek Path, between Boulder Creek and 13 th Street. Status: In planning/design phase	\$2.5 million
Eben G. Fine Park Stream Bank Restoration	Stream bank stabilization, erosion protection, habitat restoration, and recreation enhancements within Eben G. Fine Park between the northern sidewalk and Boulder Creek. Status: Work completed in June 2016	\$700,000
Public Art		
Art Projects	Public art projects for the Civic Area, University Hill, Boulder Junction garage east face, north Boulder, a temporary neighborhood series, and additional art maintenance projects. Status: Project selection in Summer 2016	\$600,000



Table 5-1: Community, Culture and Safety Project Highlights (Cont.)

Chautauqua		
Pedestrian Safety Access and Lighting Improvements	<p>Improvements include: pedestrian lighting, and improved access and pedestrian safety along Baseline Road via new sidewalks, re-aligned parking, enhanced pedestrian crossing treatments, and related safety enhancements like lighting and wayfinding signs.</p> <p>Status: In planning/design phase Expected Completion: Spring 2017</p>	\$1.5 million
Dairy Center		
Theatre Improvements	<p>Through a funding agreement; Add soundproofing, dressing rooms, reconfigure one theater into a black box theater, expand and modernize the building's lobby and façade, and modify an outdoor deck area as a special events space.</p> <p>Status: Under construction</p>	\$3.85 million
Museum of Boulder		
Museum Improvements	<p>Through a funding agreement; Convert the building into an expanded museum that will accommodate larger displays, Smithsonian-class traveling exhibits, science and technology exhibits, as well as enhanced programming and space for children.</p> <p>Status: In design/planning phase Expected Completion: Spring 2018</p>	\$4 million

Implementation

To ensure that the city meets the spending and timing goals of the ballot measure, the city has collected spending plans for each project and is closely monitoring construction progress. Table 5-2 shows the annual expenditure plan for each project for 2015 through 2018.



Next Steps

City Council will be updated on the CCS project progress through periodic updates as part of Information Packet items and council Heads Up announcements. Public updates will be announced through press releases, social media and commemorative events as some of the key projects break ground or are completed. Information on projects that have traffic impacts will be provided to the public and media through the www.BoulderConeZones.net map and other outreach materials. Project status updates are available on the [CCS website](#).

Future Capital Improvement Program (CIP) documents will continue to include a section about the CCS projects until they are completed.



Table 5-2: 2015 – 2018 Spend Plan for Community, Culture and Safety Projects

	Project Budget	2015 Actual	2016 Pro-jected	2017 Pro-jected	2018 Pro-jected
Hill Residential Pedestrian Lighting	\$2,000,000	\$44,590	\$1,955,410	-	-
Hill Commercial District Event Street	\$750,000	\$6,086	\$133,914	\$610,000	-
Hill Commercial District Irrigation and Street Tree Improvements	\$520,000	\$38,137	\$481,863	-	-
University Hill Total	\$3,270,000	\$88,813	\$2,571,187	\$610,000	-
Civic Area	\$8,700,000	\$389,314	\$3,277,499	\$5,033,187	-
Boulder Creek Path Lighting	\$1,040,000	\$5,314	\$48,876	\$200,000	\$495,810
Boulder Creek Path Improvements	\$885,000	\$2,739	\$82,261	\$250,000	\$550,000
Boulder Creek Arapahoe Avenue/13 th Street Underpass	\$2,500,000	\$13,201	\$331,799	\$655,000	\$1,500,000
Boulder Creek Eben Fine Park Stream Bank Restoration	\$700,000	\$136,012	\$463,988	-	-
Boulder Creek Total	\$5,125,000	\$157,266	\$1,666,924	\$1,700,810	\$1,500,000
Public Art	\$600,000	\$12,750	\$400,000	\$187,250	-
Chautauqua	\$1,500,000	\$72,593	\$495,481	\$931,926	-
Dairy Center for the Arts	\$3,850,000	\$1,346,703	\$2,503,297	-	-
Museum of Boulder	\$4,000,000	\$0	\$3,725,000	\$275,000	-
Contingency/Admin	\$555,000	\$6,785	\$5,000	\$400,000	\$243,215
TOTAL	\$27,600,000	\$2,074,224	\$14,644,388	\$9,138,173	\$1,743,215

City of Boulder

SPECIAL HIGHLIGHT ON
CENTRAL BOULDER LONG-TERM PLANNING AND CITY FACILITIES ASSESSMENT
2017–2022 Capital Improvement Program

Introduction

The city is continuing with three long-term planning projects in the Central Boulder area: A Boulder Community Project: Alpine–Balsam (Alpine–Balsam); the Boulder Civic Area (Civic Area); and University Hill Reinvestment. A fourth project, the City Facilities Assessment, will inform outcomes of both the Civic Area and the Alpine–Balsam projects. This special highlight section on the Central Boulder Long–Term Planning projects serves to bring information together in one place, to show the major components of the work plan and supporting budget. It is not all inclusive and does not account for generalized support and overhead costs from various departments across the city. As has been the case for numerous citywide projects, the city comes together to achieve broad community goals as a whole.

Project Overview & Focus for 2017

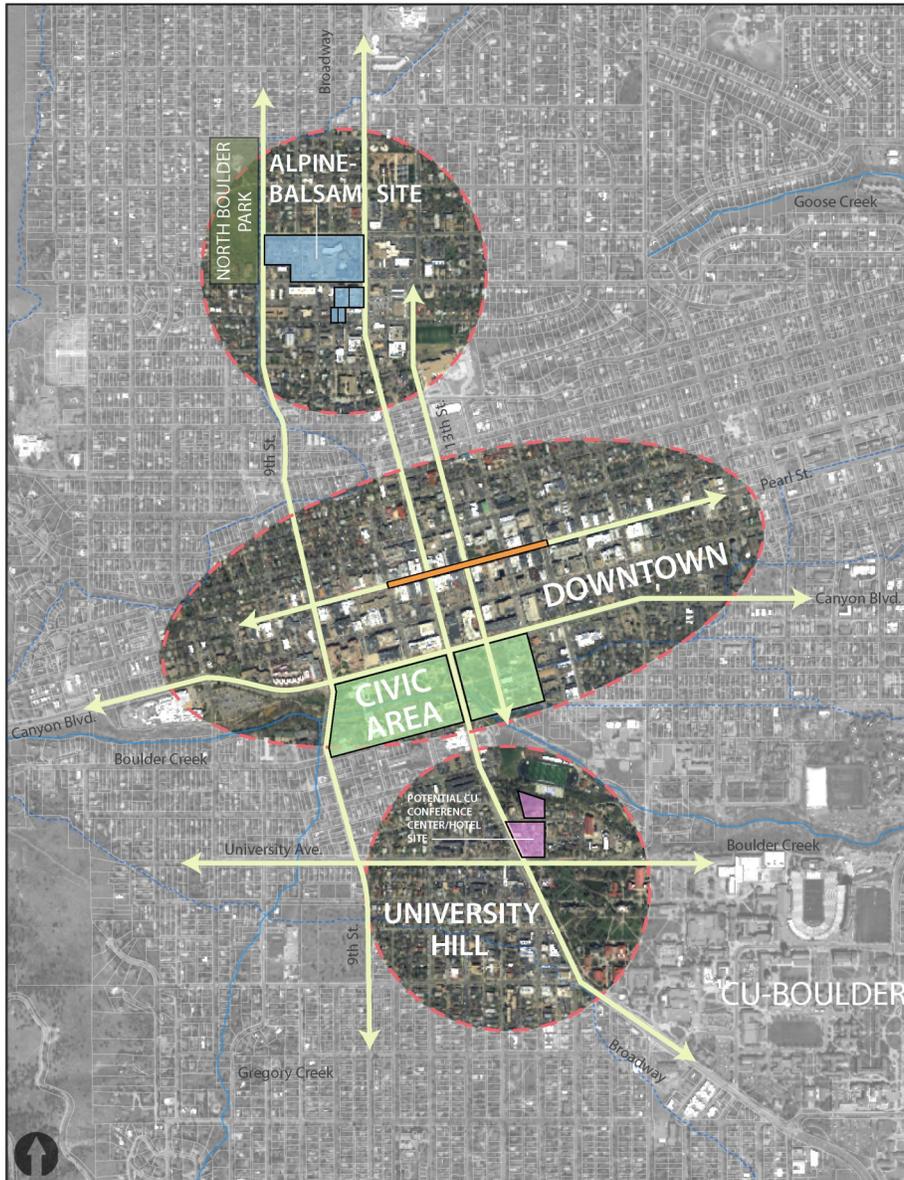
Alpine–Balsam – A Boulder Community Project: Alpine–Balsam includes 8.8 acres of property that formerly housed Boulder Community Health (BCH) campus on Broadway. The city officially purchased the BCH – Broadway campus site in Dec. 2015. The property includes over 355,000 square feet of existing building space, a five–story parking structure, and two large surface parking areas. The planning process for the site will involve extensive public participation over the next few years that will inform changes to the Boulder Valley Comprehensive Plan (BVCP), establish zoning and guidelines for the site, and ultimately shape the property’s redevelopment. The Alpine –Balsam project presents a unique opportunity to help ensure that future redevelopment of the site fits the community’s vision and goals, responds to community needs, and enhances the character of the neighborhood.

The city, working with consultant support, is in the first phase of the planning process. Rooted in both research and community input, this work will produce planning and design principles, inform potential changes to the BVCP, and serve as foundation to guide future discussions about how to use the site. For 2017, the focus will be on the second phase of work including area planning, site



Central Boulder Long-Term Planning and City Facilities Assessment

analysis, and redevelopment scenario analysis. This phase of work will include an urban design plan for the site and an area plan based on the initial planning phase completed in 2016. Additional site analysis will include geotechnical, travel demand management, and the future of healthcare services, and other topics that may be identified as needed during the planning work in 2016. The area plan will focus on the city-owned property and adjacent areas of influence. The boundary for the planning area will be determined as part of the work completed in 2016. The plan will address land uses, public spaces, community facilities, parks and trail connections, drainage, streetscape, transportation, and building design guidelines, and other site and community needs that arise during the planning process. Continuous community engagement will occur throughout this process in order to help determine the future uses of the Alpine-Balsam site.





Civic Area – The Boulder Civic Area site includes the area between Canyon Boulevard and Arapahoe Avenue and between 9th and 14th Streets. A new Civic Area Master Plan, adopted in June 2015, expresses a long-term vision to transform the Civic Area into an even more unique place that reflects the community’s shared values and diversity. Implementation of the Boulder Civic Area Master Plan is expected to take place over the next 10 to 20 years.

The first phase of implementation is currently moving forward thanks to passage of the November 2014 Community, Culture and Safety tax. In September 2016, the city began construction on the Phase I park improvements (\$8.7 million) in coordination with the more than \$5 million from the tax devoted to Boulder Creek Path improvements, 11th Street lighting, public art and Arapahoe Avenue underpass improvements at 13th Street. Subsequent phases and timing to implement the remainder of the Boulder Civic Area Master Plan will be defined by analyses currently underway, informed by community input, guided by council decision making, and dependent on the availability of funding.

For instance, the city is continuing the analysis related to the Market Hall. Earlier in 2016, the city completed a preliminary Market Hall Feasibility Analysis to determine if a year-round market hall was possible in Boulder. The preliminary analysis indicated that it was possible. The remainder of 2016 will include further exploration of the year-round Market Hall with the community to refine the Market Hall program and mission and complete an in-depth analysis of governance and finance options.

As confirmed with City Council, the priority focus for 2017 will be on continuing the planning of the East Bookend (13th Street). This will include development of urban design criteria, “test fitting” options for the public Market Hall program, determining the city office and community space needs to be accommodated in the Civic Area versus at Alpine-Balsam, incorporating the preferred design alternative for Canyon Boulevard, and identifying further park improvements east of Broadway. These work efforts will help define the full program of uses to be accommodated in the East Bookend and their potential configuration.

City Facilities Assessment – Currently, city staff and services are spread out across 41 city-owned facilities and approximately 54,000 square feet of leased space throughout the community. More than 25,000 customers are served each year in seven city buildings in the Civic Area (excluding the Main Library and Senior Center), which also regularly hosts meetings and events. The Civic Area Master Plan identified the removal of city office buildings in the High Hazard Flood Zone



(New Britain and Park Central) as well as the possibility of repurposing the Municipal and/or Atrium Buildings and creating a new “one stop” city services center, potentially on the 13th/14th Street block. The purchase of the Alpine-Balsam site has created a unique opportunity to consider both the Civic Area and the Alpine-Balsam site in responding to the city’s decentralized office challenges in a way that reflects Boulder’s vision and values.

The city, with consultant support, is evaluating city facilities space and program requirements to better address the increasing costs of maintaining and operating multiple facilities, leasing costs and inefficiencies generated by fragmented workgroups spread across different buildings. The analysis is specifically focused on identifying which city functions should be grouped at key locations around the city, including what functions should remain in the Civic Area, what functions might relocate to the Alpine-Balsam site. Through visioning exercises, this phase of work will also include the development of guiding principles for new and renovated city facilities in the context of “what is the city facility of the future for Boulder?” With input from the community, the goal is to deliberately group functions, departments and work in such a way that engages the community, provides excellent and accessible customer service, improves efficiency for staff, makes buildings easy to maintain and operate at peak performance, and reflects the vision and values of the community.

This first phase of work is in progress and estimated to be complete by early 2017. For 2017, the focus will be on the second phase of work including development of city-wide facility design guidelines and performance standards and refinement of city space needs into a complete program that could be utilized in design of facilities at Alpine-Balsam and/or in the Civic Area. This will also include an initial analysis of different redevelopment strategies for city facilities, such as the pros and cons of city ownership of facilities versus a leasing arrangement.

University Hill Reinvestment – CU Conference Center/Hotel – In 2014, Boulder City Council made it a priority to improve the quality of life on University Hill for residents, visitors and businesses. The University Hill Reinvestment Strategy provides a framework for pursuing improvements, with the city acting as a catalyst for sustained public/private partnerships and private investment over the long term. The details and recommended budget for the University Hill Reinvestment Strategy currently reside with the Community Vitality Department in the form of funding for University Hill Community Development programs and related pilot projects (Hill Employee EcoPass Program and the Residential Services District).



However, this section highlights the connection from the University Hill to the Civic Area east bookend. This is most notably related to CU's plans to move forward with development of a university-affiliated hotel and conference center on University Hill at the corner of Grandview and Broadway. Among the advantages of this site for a conference center and hotel are its adjacency to University Hill, the main campus and the Civic Area / Downtown, and its potential to act as a major "anchor use" that could significantly contribute to the Hill reinvestment efforts. A key goal of the city is to improve the convenience, function and urban design of multi-modal connections between the Grandview site/ CU campus and the Civic Area/ Downtown as well as between Grandview and the Hill Commercial Area. While development of a CU hotel/conference facility is a University-led effort, in December 2015 City Council approved a set of goals and objectives to frame and guide city staff's discussions and collaboration with the University. The key issues to address with the Grandview site include:

- Optimal size of the facility to meet both the University's and community's needs;
- Determining the appropriate level of parking to support a hotel/conference center in this location, given the robust multi-modal access that exists and adjacent parking facilities and district needs;
- Design quality of the new facilities, particularly related to the public realm;
- Potential to incorporate or relocate historic resources; and
- Strengthened multi-modal connections to and from the surrounding area.

Staff is currently working with CU to outline a potential Memorandum of Understanding to inform and guide the design and development review process for the hotel/conference facility, recognizing that it is being developed as a University facility on University land, but also recognizing that it represents a unique opportunity for the broader community as well. Potential areas for collaboration could strengthen the facility's likelihood of success while also leveraging the facility to maximize potential community benefits. The MOU will define both the potential areas of collaboration and related community benefits. Following approval of the MOU, the University anticipates preparing a formal RFQ/ RFP for subsequent design development.

The planning efforts related to the CU conference center/hotel may involve capital improvements investments from the city in future years depending on the outcome of current work efforts.



Long-Term Planning and Future Implementation

As noted previously, the Civic Area and Alpine-Balsam are multi-year projects. The planning efforts to transform the Civic Area, redevelop the Alpine-Balsam site, promote reinvestment in University Hill and support CU's development of a hotel/conference facility are all anticipated to continue through 2016 and into 2017. Phases and timing to implement these planning projects will be defined by analyses currently underway, informed by community input, guided by council decision making, and dependent on the availability of funding sources. As part of the planning efforts, the city will develop cost estimates and identify financing tools and investment strategies to pay for capital improvements in the Civic Area, connections to the CU Conference Center/Hotel on the Grandview site and development of the Alpine-Balsam site. This may lead to public financing through voter-approved bonds or sales tax in 2018 along with private partnerships. Assuming that funding is identified, then design and construction may begin in 2020. See the high level timeline graphic below for an estimated schedule. Funding for the planning studies related to the Civic Area, Alpine-Balsam and CU conference center/hotel is either in existing budgets or will come forward in the 2017 budget recommendation. Funding sources for the major capital investments that will be guided by the results of these studies is yet to be determined.

FIGURE 6-1: Central Boulder Long-Term Planning

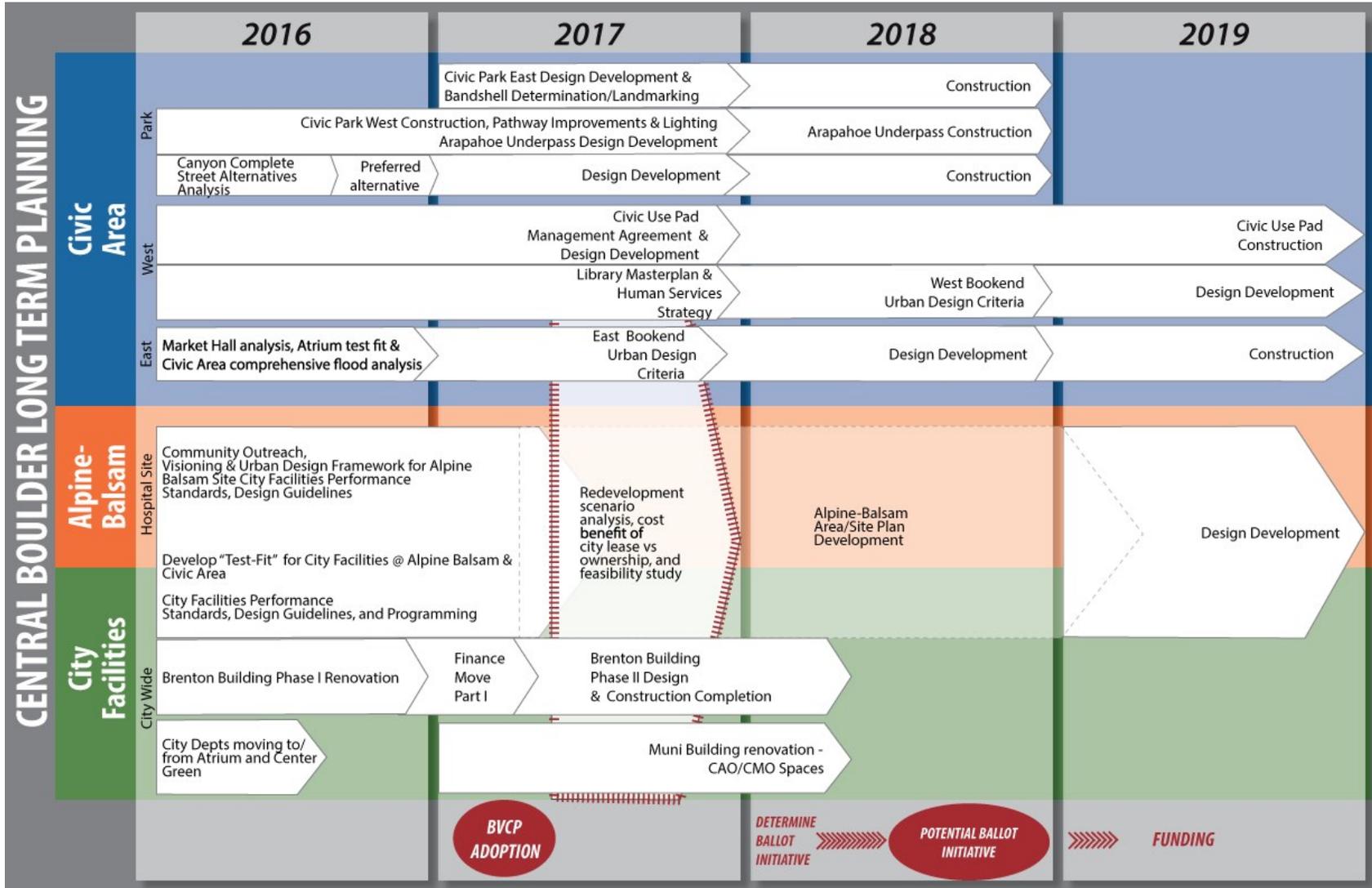
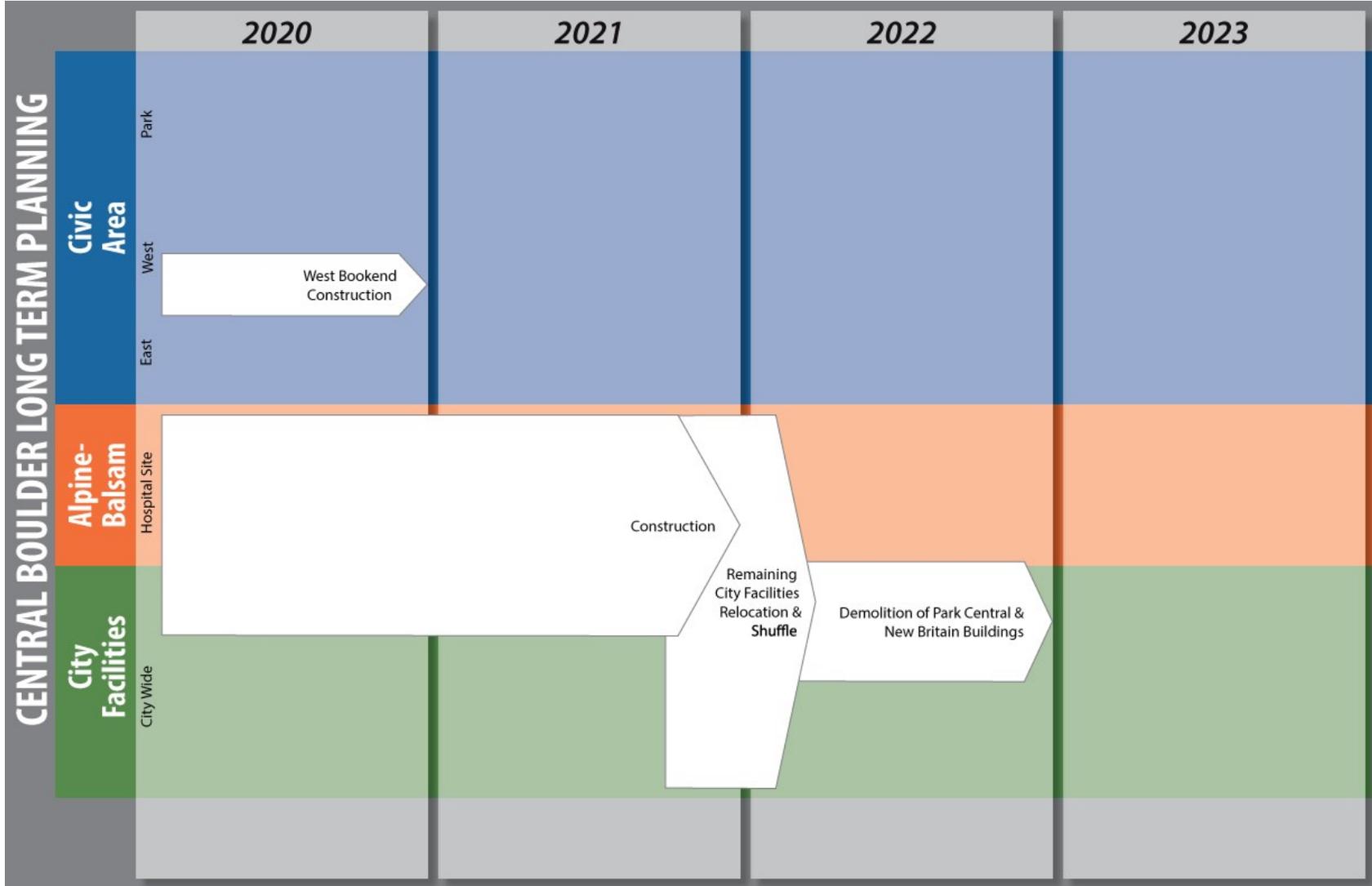


FIGURE 6-1: Central Boulder Long-Term Planning (Cont.)



City of Boulder

SPECIAL HIGHLIGHT ON DEVELOPMENT EXCISE TAX AND IMPACT FEES

2017–2022 Capital Improvement Program

Introduction

The City of Boulder has a policy that new growth should pay its own way, which is articulated in the Boulder Valley Comprehensive Plan (BVCP). Two ways that the city funds system improvement to offset the impact of new development on city infrastructure is through the imposition of development related excise taxes and impact fees. Depending upon the tax or fee, it can be charged on both residential and commercial development and it is assessed at the time of the development’s building permit.

Excise taxes are one-time revenues used to fund new infrastructure needed to accommodate new development. Aggregate excise tax levels are subject to voter approval; but as a tax, development excise tax spending requirements are somewhat flexible as taxes are designed defray the general burden of the cost of government. Development excise tax use must still fall within the confines of the voter–approved language. Impact fees are one–time fees similarly used to construct system improvements and expansion, but impact fees have strict legal requirements and tests that must connect the fee directly to the use for which it was collected. Moreover, impact fees can only be used for capital spending. This is why impact fees and development excise taxes are integrated into the Capital Improvement Plan.

Overview of Capital Development Excise Taxes and Impact Fees

The city uses three different excise taxes and seven different impact fees to fund new infrastructure to accommodate new development:

Excise Taxes

- Housing Excise Tax
 - Used to fund the construction, rehabilitation and acquisition of affordable housing; charged on residential and non–residential development.
- Park Land Excise Tax
 - Used to fund park land purchases; charged on residential development.
- Transportation Excise Tax
 - Used to fund transportation system capital improvements and enhancements such as road improvements, intersections, bike lanes, underpasses, and pedestrian enhancements. Charged on residential and non–residential development.

Impact Fees

- Library Impact Fee
 - Used to fund library facilities and materials in the library’s collections, charged on



residential development.

- Parks & Recreation Impact Fee
 - Used to fund outdoor parks, recreation center and pool facilities, and support facilities; charged on residential development.
- Human Services Impact Fee
 - Used to fund senior center facilities and the Children, Youth and Family Center facility; charged on residential development.
- Municipal Facilities Impact Fee
 - Used to fund additional municipal building space; charged on residential and non-residential development.
- Police Impact Fee
 - Used to fund police station facilities, and communication center space; charged on residential and non-residential development.
- Fire Impact Fee
 - Used to fund fire station facilities, land, and fire apparatus; charged on residential and non-residential development.
- Affordable Housing Linkage Feeⁱ
 - Used to fund additional affordable housing; charged on non-residential development.

The excise taxes and fees above are collected on behalf of a number of city departments including the Library, Parks and Recreation, Human Services, Public Works, Police, and Fire. Specific projects and their descriptions are available in the respective department sections of the CIP document where applicable. Table 7-1 summarizes the projected uses of development excise taxes and impact fees for the 2017–2022 CIP timeframe.

Excise Tax and Impact Fee Study Update and Next Steps

At the January 2015 Council Retreat, updating the 2009 Impact Fee and Excise Taxes was placed on the city work plan. On Feb. 3, 2015 Council directed staff to move forward with an update to the development-related impact fees and excise taxes. In spring of 2015, staff engaged with two consultants to conduct multiple studies and update the city’s development related impact fees and excise taxes. The study is currently underway and is expected to wrap up in the Fall of 2016. Shortly thereafter staff will bring forth a recommended set of updated development excise taxes and impact fees for council adoption. If approved, these new fee levels will affect capital funding and likely alter the capital plans of select departments in the 2018–2023 CIP and going forward. Information about the study update can be found on the city’s website at: [Development-Related Impact Fees and Excise Taxes](#).



**Table 7-1: Development Related Excise Tax and Impact Fee Funded Projects
2017-2022**

	2017 Recommend- ed	2018 Pro- jected	2019 Projected	2020 Pro- jected	2021 Projected	2022 Projected
Brenton Building – Renovation	\$2,150,000	-	-	-	-	-
Misc. Facility Projects	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Facilities & Asset Mgmt. Total	\$2,450,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Boulder Reservoir Trail	-	-	\$500,000	-	-	-
Scott Carpenter Aqua Enhancements	-	\$3,000,000	-	-	-	-
Violet Neighborhood Park	-	-	\$1,000,000	-	-	-
Valmont City Park De- velopment	-	-	\$1,000,000	-	-	-
Parks and Recreation Total	-	\$3,000,000	\$2,500,000	-	-	-
Boulder County/City Joint TMP		\$151,000				
Misc. Development Coordination	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
TIP Local Match Im- plementation	\$480,000	\$480,000	\$480,000	\$480,000	\$480,000	\$480,000
Signal Maintenance & Upgrade		\$200,000				
Transportation Total	\$530,000	\$881,000	\$530,000	\$530,000	\$530,000	\$530,000
Total	\$2,980,000	\$3,931,000	\$3,530,000	\$580,000	\$580,000	\$580,000

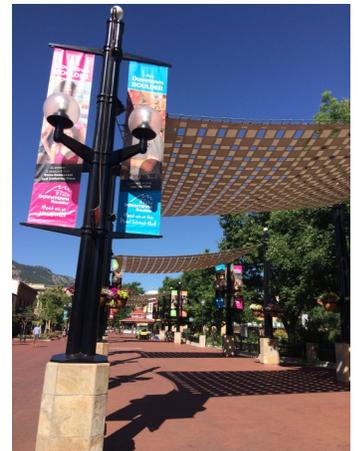
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Overview of Department Mission

Community Vitality was created in late 2015 to integrate the former Downtown and University Hill Management Division/Parking Services, and the city’s Economic Vitality function. Community Vitality serves the downtown, University Hill and now Boulder Junction and their affected communities, by providing quality program, access and parking, enforcement, maintenance and multi-modal services through the highest level of customer service, efficient management and effective problem solving. The economic vitality programs and services support businesses city-wide, with a focus on retaining primary employers. Community Vitality is home to the University Hill Reinvestment Strategy and its programs to reinvigorate the Hill commercial area.

Community Vitality operates and maintains five public parking garages and five surface permitted lots totaling 2,644 spaces, maintains parking meters/kiosks serving more than 1,700 on-street parking spaces, and administers eleven Neighborhood Parking Permit program districts, issuing nearly 2,500 resident and commuter permits in 2015. Parking Services also manages parking through enforcement to ensure turnover and neighborhood livability. The department administers transportation demand management programs including the issuance of more than 7,000 Eco Passes annually to employees of the downtown, University Hill and now Boulder Junction districts. The department sponsors B-Cycle and eGo CarShare in support of the city’s transportation and climate goals improving access for visitors to the districts by making more parking spaces available. The department administers an annual flexible rebate program to support expansion of primary employers and a microloan program. Community Vitality issues permits for downtown and Hill events as well as city-wide filming and collaborates closely with all special events in the city. Community Vitality works closely with other departments and outside partners on projects that touch on one of our districts (e.g., public-private partnerships like Trinity Commons, redevelopments), parking (e.g., the Chautauqua Access Management Plan) and/or community-wide economic vitality (e.g., Boulder Valley Comprehensive Plan update, Resiliency Plan).



Streetscape on Pearl Street.



As a new department, Community Vitality does not yet have a master plan and is seeking 2017 funding for development of a master plan. In 2016, the department will undertake a formal assessment of the CAGID parking garage assets to inform more formalized capital budgeting for future needs.

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 meter revenues
- *University Hill Commercial District Fund* – including restricted University Hill General Improvement District (UHGID) parking and tax revenues and on-street meter revenues
- *Two Boulder Junction Access District (BJAD) Funds* – Parking and Travel Demand Management (TDM) funds – including district tax revenues and PILOT (payment in lieu of taxes) payments, and parking revenues
- *General Fund* – including on-street parking revenues, Neighborhood Parking Permit program revenues, and parking enforcement revenues.

The Community, Culture & Safety Tax supports a number of projects managed by Community Vitality, which are indicated with an *.

Current Focus for Capital Planning and Projects in 2017

Community Vitality's current focus for capital planning and projects in 2017 include a focus on CAGID garages major maintenance and Downtown Pearl Street Mall amenity repairs and replacement. Design is underway for two new projects: the University Hill Event Street (Community Culture and Safety Tax project) and the Trinity Horizons Public-Private Partnership project (funded in 2016 budget).

Project Highlights

Projects expected to be completed in 2016:

- CAGID Garage Major Maintenance – Completed 2016 projects included: epoxy deck coating at the 1100 Walnut garage (Randolph Center); elevator modernization at 1100 Spruce; commencement of interior painting and lot attendant booth repairs/replacement; and garage gate access and revenue control equipment and supporting technology replacement in all five downtown garages.



- Downtown/Pearl Street Mall Improvements and Amenities Replacement – In collaboration with the Parks and Recreation Department, many projects were completed in 2016 including repainting twelve Boulder history panels, replacement of the mall planter pots, cast-metal retrofit of the mall traffic bollards, 1400 block play area surface replacement, sub grade sinkhole repairs, and architectural engineering and design work on a mall directory kiosk for the 1400 block.
- Community, Culture and Safety Tax Projects – The residential pedestrian corridor lighting and street tree irrigation projects were completed in 2016, as well as the design and community outreach phase of the Hill Commercial Area Event Street on Pennsylvania Avenue.
- Repair and replacement of the surface parking lot at 1745 14th Street.
- The Trinity Horizons Public-Private Partnership project will redevelop a surface parking lot on property owned by Trinity Lutheran Church at 2200 Broadway. The development will include a church fellowship/community hall and offices, underground parking and affordable housing for seniors. The Downtown Commercial District fund will contribute \$4.128 million to construct the parking garage to be owned and managed by CAGID that will add 56 spaces to the downtown parking supply.

Priority Projects for 2017

- CAGID Garage Major Maintenance:
 - Elevator repair and refurbishment of both elevators at the 1500 Pearl Street garage
 - Completion of interior painting of parking garages and updating/replacement of select parking attendant booths
 - Ramp coating repair and replacement at 1000 Walnut garage
 - Possible other projects that may be identified as priorities in the CAGID Asset Inventory and Assessment to be completed in 2016
- Downtown/Pearl Street Mall Improvements and Amenities Replacement:
 - Maintenance and repairs of the pedestrian light fixtures to become compliant with the dark-skies ordinance
 - Trash, recycling and compost bin replacement including bear-proof receptacles west of Broadway
 - Fabrication and construction of a mall directory kiosk west of 15th and Pearl
 - Redesign of the Boulder County map surface in the 1400 block of Pearl
- Community, Culture and Safety Tax projects
 - Construction phase of the Hill Commercial Area Event Street on Pennsylvania Avenue*



Highlights of 2018 – 2022 Projects

- CAGID Garage Major Maintenance – The CAGID Asset Inventory and Assessment Plan to be completed in 2016 will provide a detailed work program of capital repair projects that will include continued epoxy surface coatings, structural repairs and elevator repairs at 1000 Walnut as well as Americans with Disabilities Act (ADA) corrections.
- Downtown/Pearl Street Mall Improvements and Amenities Replacement – Funds are required for ongoing capital maintenance and replacement of Pearl Street Mall, West Pearl streetscape and 13th and 15th Street streetscape amenities. Funds are reserved annually for potential replacement of amenities such as the pop jet fountain and shade structure awnings.
- Downtown 14th Street Parking Lots – Funds are reserved annually for ongoing capital repair and replacement of lots.

Board Action

The Downtown Management Commission (DMC) unanimously approved the following resolution in support of the Community Vitality/Parking CIP at its September 12, 2016 meeting:

- Motion to approve the 2017 recommended expenditures from the Downtown Commercial District Fund.

Guiding Principles and Project Prioritization

1. CIP Guiding Principles

All proposed projects in the 2017–2022 CIP are consistent with the CIP guiding principles. All projects have sufficient funds for ongoing maintenance and operations. All projects in the proposed CIP maintain and improve existing assets.

The Downtown/Pearl Street Mall Improvements/Replacements support the economic sustainability of downtown Boulder by ensuring long-term sustainability of our existing infrastructure and investing in the future economic and social vitality of our community center.

The participation of CAGID in the Trinity Commons mixed-use project supports the growing access and parking demands of the downtown as well as supporting the goals of additional affordable housing in the community.

The three University Hill Community, Culture and Safety projects help support the Hill



Reinvestment Strategy: the hill irrigation project enhances the vitality of the streetscape, the pedestrian lighting project promotes safety in the high density residential area, and the event street on Pennsylvania creates a vibrant public gathering area*.

2. Prioritization

The Downtown/Pearl Street Mall improvements are prioritized based on an inventory of all streetscapes and amenities in the downtown area (identification of assets, useful life of each, estimated cost to repair/replace) generated by a Downtown Improvement Plan Task Force with input from Parks and Recreation as well as Facilities and Assets Management (FAM). Funds from the Downtown Commercial District Fund are deposited annually in a Facility Repair and Replacement fund administered by Facilities and Assets Management (FAM) to ensure availability when needed. The replacement funding is allocated as amenities age and/or need replacement or repair. In general, Downtown Commercial District funds are applied to above-ground amenities and Parks and Recreation funds are applied below-grade (e.g., irrigation, bricks). It should be noted that the Pearl Street Mall will celebrate its 40th anniversary in 2017, which will bring even more attention to infrastructure and amenities.

The University Hill Community, Culture and Safety projects – pedestrian-scale corridor lighting, commercial district tree irrigation and the event street on Pennsylvania Avenue*– all support the Council priority of Hill reinvestment and revitalization by creating a safer environment in the high density residential area, maintaining the streetscape infrastructure and creating a versatile and vibrant public gathering space.

3. Projects Not in Master Plan

As a department created in late 2015, Community Vitality does not yet have a master plan. Projects are included in the CIP based on stakeholder interest and necessary maintenance of capital assets.



Operation and Maintenance Impacts

Annual maintenance plans are covered through the ongoing operational budget. With the maintenance and operation improvements programs in place, assets will avoid deferred maintenance.

New operating and maintenance funding that will be required to maintain the parking garage at Trinity Horizons when completed will come from the Downtown Commercial District Fund, which also will receive the parking revenues from the new garage.

Projects not Previously Identified in the CIP

None

Deferred, Eliminated or Changed Projects

CAGID Parking Access and Control – The parking access and revenue control systems (PARCS) replacement project was originally scheduled to begin in 2015. Vendor selection took longer than expected. The project is expected to begin in 2016.

Unfunded Projects and Emerging Needs

Hill Commercial Area Lighting Replacement: The pedestrian-scale lighting in the University Hill Commercial District was installed approximately 20 years ago and the light fixtures are at the end of their projected lifespan. The existing fixtures are no longer available for purchase, and as the poles are damaged, parts (such as banner arms, globes, etc.) must be custom fabricated. There is insufficient replacement funding available and a major capital investment will be required to replace the entire system of 35 poles. Staff is looking at whether the pedestrian-scale lighting being installed in the residential district of the Hill would be appropriate to serve as the commercial district replacement fixture. The new fixture type would be more energy efficient (LED) for ongoing cost savings. Project scope would include: remove 35 existing outdated light poles; upgrade one existing electrical panel; and install 35 new pedestrian-scale lighting pole systems. Estimated cost for removal, new pole systems and installation is \$170,975. Estimated cost for an electrical panel upgrade is \$15,000. At this time, no funding has been identified for the project.

University Hill Reinvestment Strategy: Implementation of various projects as planning, outreach and approval processes are completed. For example, in 2016, Community Vitality will issue an RFQ for a consultant to work with city staff and stakeholders to develop a Hill Alleys Master Plan



that will identify potential enhancements to the alleys in the Hill Commercial District, including infrastructure and operational. The initial work will include engineering analysis, urban design, and public outreach. There is currently no funding for the actual public improvements, which could include burying cables; consolidating and constructing waste enclosures; landscaping; public art and more.

[It is envisioned that streetscape improvements associated with a suggested University Hill hotel public-private partnership would be a city responsibility and would be funded through certificates of participation that also would fund construction of the parking garage portion of that project.]

Installation of additional solar powered electric vehicle charging stations in downtown parking garages, downtown and University Hill surface lots and/or on-street spaces: As more electric vehicles are utilized in the community, there is increasing demand from customers for additional electric vehicle charging stations. Such charging stations must be solar-powered to truly reduce energy consumption and carbon emissions, consistent with city goals.



Mapping

The mapping for CIP projects is now in a GIS-based electronic map [accessed here](#). All the map-able projects proposed for funding in the 2017–2022 are shown. If the icons are clicked, the project name, project number (referenced on the project sheets), department, funding source, and year with initial funding will be shown. For many projects the initial funding is currently showing as 2015 as projects have funding for planning and design before actual construction. However, the construction timing may be in the future. Please consult the project sheets in each department section for project descriptions, phasing and funding information. Projects with funding earmarked for citywide or system improvements are not shown on the map. Ongoing refinement of the GIS-based map will result in greater clarity of project information.



Project Name: Downtown 14th St Prkg Lot Improve

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: DUHMD

Subcommunity: CENTRAL BOULDER

Project Number: 620CAGFLot

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

The 14th Street parking lot improvement project is an ongoing project to maintain the 3 surface parking lots on 14th Street between Canyon and Arapahoe. These lots are not owned by CAGID, they are city property, but located within the CAGID boundaries and managed by Community Vitality.

The surfaces in 14th Street lots require repair and replacement on a rotating basis. Community Vitality does not have a master plan, but identified the lack of funding to maintain the lots in the 2012 budget cycle.

Facilities and Asset Management performed an inspection in 2015 for the three lots. They found that 2 of the lots require replacement due to severity of asphalt fatigue, cracks, potholes and drainage issues in over 20% of the surface. The third lot requires patching and sealing to maintain a good operating condition. Once a lot is newly paved, it will have an estimated life span of 20 years. The total estimated cost to complete all necessary repairs was \$285,500. Surface replacement of the lots with the highest severity of issues are prioritized first.

The 1775 14th lot was removed and replaced by FAM in 2014 as part of a larger remediation project and the rebuild of the civic plaza in 13th Street.

Staff will monitor the implementation of the Civic Area Plan to ensure coordination with any redevelopment projects and responsible expenditure of funds.

Project Phasing

Community Vitality appropriates and transfers \$25,000 annually from the Downtown Commercial District Fund to a Facilities Repair and Replacement fund to establish savings to complete improvements on a rolling basis.

The priority in 2016 was to overhaul the 1745 14th lot. The lot was milled 2 inches, overlaid with asphalt and a petromat was installed along with a 3 ft wide drainpan. The lot was seal coated and restriped.

Public Process

There is no public process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Parks and Recreation, FAM and Community Vitality have all participated in the care and maintenance of the 14th St lots

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Downtown Commercial District	25000.00	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000

Funding to Completion \$0
Future Unfunded \$0

Total Funding Plan: \$175,000

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:

Operating Costs are currently covered in the Downtown Commercial Dis



Project Name: Downtown Parking Garage Elevators

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: DUHMD

Subcommunity: CENTRAL BOULDER

Project Number: 620CAGELEV

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

Both the 1100 Spruce garage, built in 1990, and the 1500 Pearl garage, built in 1998, have 2 elevators. All four elevators have not been modernized or had any significant overhaul and repairs since installation. Bids were solicited from the elevator maintenance firms.

The elevators in the 3 other downtown garages will be evaluated during the facility assessment. They will be placed into an appropriate schedule within the asset management plan.

These improvements will be funded with fund balance from the Downtown Commercial District Fund.

Project Phasing

2016 -2 elevators at 1100 Spruce garage- \$330,800

2017- 2 elevators at 1500 Pearl garage- \$278,200

Public Process

No public process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

There is no collaboration with other departments on the garage elevator repairs

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Downtown Commercial District	330800.00	\$278,200	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$609,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:

No additional O&M required



Project Name: Downtown Parking Garage Major Maint

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: DUHMD **Subcommunity:** CENTRAL BOULDER
Project Number: 620CAGMain **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

Funding for the 4 year, 4.5 million dollar major capital renovation and repair project funding ended in 2011. Beginning 2012, \$250,000 per year was allocated for ongoing repairs/renovations to maintain the garages in good standing. Major maintenance projects include, but, are not limited to: epoxy coating of exposed garage decks (on a 6-8 year replacement schedule, one structure per year), painting (interior and exterior), major elevator repairs, and concrete deterioration repairs. Many of these procedures require significant funding and are part of a rotating maintenance schedule. The intent is to maintain the garages regularly to avoid or delay significant capital outlay resulting from deferred maintenance.

Projects planned for 2017 include:
 Ramp coating repair and replacement at 1000 Walnut (St Julien) garage. Painting and attendant booth updating will take place depending on available funds.

Project Phasing

This project is for an ongoing funding program. All \$250,000 is spent on rotating projects at the 5 downtown garages each year. Projects completed in 2016 were prioritized based on severe deferred maintenance. Joint and crack repair and sealants at 1100 Walnut was completed due to exposed surface areas. The drive lanes were repaired and treated to mitigate and eliminate potential damage to occupied offices below. In addition, significant structural issues were discovered during the elevator replacement project at 1100 Spruce. These repairs required immediate attention.

Public Process

No public process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

There is no collaboration with other departments on the garage major maintenance

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Downtown Commercial District	250000.00	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$1,750,000

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**

Additional Annual O&M Description:

Operating costs are covered in the Downtown Commercial District Fund



Project Name: Downtown Pearl St Mall Amenity Repl

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: DUHMD **Subcommunity:** CENTRAL BOULDER
Project Number: 620CAGFMAL **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

Until 2012, there was no capital replacement or future improvements funding identified for the Downtown/Pearl St Mall streetscapes. The Downtown/Pearl St Mall Amenities plan consists of two components: 1) capital replacement budget for existing amenities on the Pearl St Mall (pop jet fountain, shade structure, kiosks, play areas, etc.) and existing streetscape elements within the downtown (benches, trash receptacles, bike racks, etc.) and 2) replacement of future streetscape improvements in areas outside the Pearl St Mall in downtown Boulder. Replacement funds are designated as amenities age, and need replacement or repairs.

2017 projects will include: Retrofit of pedestrian light fixtures to comply with outdoor lighting ordinance; trash, recycling and compost replacement to include bear-proof cans west of Broadway, construction of a new mall directory kiosk at 15th & Pearl, redesign the County map in the 1400 block and continued reserve funding for Pearl St Mall amenity replacement.

Project Phasing

Community Vitality appropriates and transfers \$125,000 annually from the Downtown Commercial District fund to a Facilities Repair & Replacement fund to accumulate funds for amenities replacement. In collaboration with Parks, projects completed in 2016 include: repainting 12 history panels, replacement of the mall planter pots, refurbishment of the mall traffic bollards, 1400 block play area surface replacement, and sub grade sinkhole repairs.

Public Process

A Downtown Improvement Task Force, including staff from Parks, Planning, Transportation, Community Vitality and Facilities Asset Mg prioritized and identified improvements. Also included were representatives from downtown boards and organizations. The focus of the task force was; 1) work with Parks, GIS and FAM to create an inventory of existing amenity and streetscape improvements on the Pearl St Mall/Downtown 2) Recommendation for future streetscape and infrastructure improvements.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Community Vitality works with FAM, Transportation and Parks & Rec to coordinate the downtown capital amenities replacement plan.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Downtown Commercial District	125000.00	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$875,000

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**

Additional Annual O&M Description:

Operating costs are covered in the Downtown Commercial and P&R Funds

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City of Boulder

FACILITIES AND ASSET MANAGEMENT

2017–2022 Capital Improvement Program



Overview of Department Mission

The Facilities and Asset Management 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.

Funding Overview

The Facilities and 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, Human Services, Library, Police and Municipal Facilities ceased and were replaced with impact fees. In addition, Parks and Recreation was added to the list of departments collecting impact fees. Changes to impact fees are being considered in 2016.

Facility Renovation and Replacement Fund

The Facility Renovation and Replacement Fund (FR&R) accounts for major maintenance (projects >\$3,000), renovation and building system replacement projects for FAM maintained buildings, structures and property. The majority of FR&R funding comes from the General Fund (GF). The FR&R fund also receives funding from restricted and enterprise funds for specific departmental projects including remediation work. The FR&R fund is an internal service fund managed by FAM.



Current Focus for Capital Planning and Projects in 2017

The core of FAM's operation is maintaining city facilities so that residents and employees have a safe and pleasant experience in the various facilities. As facilities are repaired and systems are replaced, FAM also looks to provide greater energy efficiency and equipment controls so that systems can be monitored 24/7. Focus areas for 2017 include:

- Major maintenance and repairs of infrastructure to multiple facilities across the city verified by formal facility assessment performed in 2015 and 2016. The assessments of 20 city facilities included fire stations, libraries, fleet services, major administrative areas, and recreation centers. Approximately \$10.6 million in backlogged maintenance was identified in these 20 facilities and \$2.6 million was further identified as critical backlog and have been programmed for 2017 to 2022.
- Major renovation of the Brenton building for city services, one of the acquired properties at the Alpine-Balsam Boulder Community Health (BCH) campus area, with goals to achieve a net-zero building
- Area development plans for the Alpine-Balsam BCH campus area with goals towards creating an Eco-District Energy Efficient projects to continue the reduction of Green House Gas (GHG) emissions produced by city facilities and operations.

Project Highlights

Projects Expected to be Completed in 2016

- Radio infrastructure study to ensure a complete asset assessment of the city's radio communication sites and identify short term, mid-term and long term system upgrades required
- Replacements of the pool air handler at the East Boulder Community Center
- Roof replacement at the North Boulder Recreation Center
- Floor replacement at BMoCA
- System replacements and upgrades at The Dairy Arts Center in combination with the Community, Culture and Safety tax project

Priority Projects for 2017

- Major renovation of the Brenton building for city services to include Finance staff and other services as determined by the city-wide review of services to be located in this area.



- 13th Street Plaza: the approved Voluntary Clean-Up Program has been partially completed and a temporary plaza re-constructed. The city is negotiating with the other responsible party for cost reimbursement and executing alternative methods for clean-up.
- BMOCA: An electrical system upgrade is planned to provide more power to support events at this heavily used venue.
- Upgrade to Radio Communication sites will be a priority as identified by the 2016 Radio Infrastructure Study.
- Facilities maintenance projects will include \$500,000 for Recreation Centers and \$680,000 for other General Fund facilities that includes backlog repairs such as roofs and HVAC systems.
- Outdoor lighting replacements to ensure compliance with the lighting ordinance.

Highlights of 2018–2022 Projects

- Facility maintenance: multiple major maintenance projects for the current CIP period totaling \$4,250,000 to reduce the FAM backlog in General Fund facilities, other than recreation centers, and continue annually programming regular maintenance activities.
- Recreation centers major maintenance: An additional \$500,000 is programmed in 2019 for backlog projects at the recreation centers. This reduces the backlog of high and medium priority facility deficiencies that have been identified as part of the asset assessments.
- Fire Stations major maintenance: Continuation of major repairs and maintenance scheduled at various fire stations to maintain these essential facilities to industry standards. The total budget for fire station maintenance is approximately \$717,000.
- Park Shelter repairs at Martin Park and North Boulder Park: Include upgrading electrical, plumbing and renewing protective coatings. These projects have been moved to 2021 due to the backlog identified in 2016 by the facilities assessments.

Guiding Principles and Project Prioritization

CIP Guiding Principles

The proposed 2017 – 2022 CIP is consistent with the CIP Guiding Principles. The primary focus of this capital investment is to sustain and improve maintenance of existing assets. As projects are developed, improvements may also require building code updates, safety and security enhancements and added efficiencies to reduce energy consumption and operating costs.



Prioritization

Projects can be identified in department master plans or studies, such as the Civic Area Plan, Municipal Service Center Master Plan, Police Space Study and Fire Response Mapping. In 2016, FAM completed asset assessments on 20 of the 138 facilities under its responsibility. Critical systems that are backlogged, such as roofs and HVAC systems, have been programmed earlier in the CIP.

In accordance to the FAM Master Plan and under current fiscally constrained funding, essential facilities are maintained to industry standards and remaining facilities at standards commensurate with available funding. Energy efficiency projects, such as the work accomplished through the Energy Performance Contracts, are funded if budget neutral or if there is less than a three-year simple payback.

In addition, FAM prioritizes its projects based on the type of facility and type of work as shown below. Should a higher priority project need arise during the current year and future years, projects are reprioritized, to address an immediate health and safety need.

Table 9-1: FAM Priority Codes

Priority Code	Type of Facility	Type of Work
1	Essential ¹	Essential ²
2	Non-Essential	Essential
3	Essential	Desirable
4	Non-Essential	Desirable ³
5	Essential or Non-Essential	Discretionary ⁴
6	Essential or Non-Essential	Deferred

¹Essential Facility: A facility necessary to sustain the most basic core of city services such as public health and safety and/or compliance with federal or state laws particularly during an emergency event. 26 facilities are identified as “essential” in the City of Boulder such as the Municipal Building, Park Central, New Britain, Public Safety Building, Municipal Service Center, Fleet Services, Fire Stations, North Boulder Recreation Center and East Boulder Community Center.



²Essential Work: Work that is performed for life, health, and safety-related situations. Also includes work that is needed so that a city service can be provided.

³Desirable Work: Work that does not meet the essential or discretionary definition.

⁴Discretionary Work: Work that is not required but would be defined as “nice-to-have.”

Examples of priority code projects:

- Priority 1: repair emergency generator at the Public Service Building
- Priority 2: repair emergency lighting at South Boulder Recreation Center
- Priority 3: replace lighting at Park Central
- Priority 4: replace lighting at Meadows Library
- Priority 5: paint walls at New Britain after 10 years
- Priority 6: replace carpet in staff spaces after 7 years

Projects Not in master Plans

FR&R projects are identified by FAM throughout the year as facilities are serviced and inspected. Even if projects are not previously identified in a Master Plan, when project needs are identified through this process, they are prioritized as noted above.

Operation and Maintenance Impacts

The O&M budget is also impacted by higher material and labor costs, which are not adequately accounted for in O&M budgets. Climate change impacts to building systems such as lower service lives of equipment and building systems will also require more frequent replacements and possibly larger equipment. Ongoing analysis related to replacement funding has begun to address these issues and strategies will continue to be implemented to identify funding mechanisms to reduce the backlog.

Projects not Previously Identified in the CIP

- Library Renovation
- Brenton Building, 1136 Alpine – Renovate 2 additional floors
- Upgrade Radio Communication Sites
- Municipal Service Center, Bldg A – Replace Central Air Unit and Roof
- Fleet Services – Various Replacements
- Boulder Museum of Contemporary Art – Electrical Upgrade
- Alpine–Balsam BCH campus area Development Plan



Deferred, Eliminated or Changed Projects

As a result of the asset assessments, funding to reduce the backlog and maintain existing assets was increased and the following renovation projects were moved later in the CIP:

- East Boulder Community Center Renovation: Portions of this project that totaled \$452,000 from 2018 to 2021 will now have backlogged repairs funded out of the \$1,000,000 in capital maintenance funds programmed in 2017 And 2019 for recreation centers
- Tantra Shop Renovation: This project was moved from 2019 to 2022 to address high priority infrastructure repairs
- West Senior Center Major Maintenance and Rehabilitation: This project was moved from 2019 to 2020 to address high priority infrastructure repairs
- Martin Park Shelter and North Boulder Park Shelter Major Maintenance and Repairs: These two projects were moved from 2017 to 2021 to address high priority infrastructure repairs
- Aquatic Facilities Major Maintenance: Funding for these projects was shifted from 2018 to 2019 and from 2020 to 2021 to align with Parks and Recreation's CIP

Unfunded Projects and Emerging Needs

The proposed FAM 2017–2022 CIP focuses on enhancing and maintaining current facilities, the impacts to FAM's Operation and Maintenance (O&M) budget will be positive in the replacement of aging and inefficient infrastructure. However, despite additional ongoing operating dollars allocated to FAM in 2014 to help slow the rate of backlog increase, FAM's current O&M budget is still funded to a level at which the backlog continues to increase annually. In 2013, the backlog was projected to be \$10.6M at the end of 2015 for 138 city facilities under FAM's purview. From the 2016 facilities assessment, the backlog was verified to be \$10.6 million in 20 of the 138 facilities, indicating actual backlogs are higher than projections.

- FAM Backlog: Only \$2.6 million is included in 2017 to 2022 to address the \$10.6 million in backlog identified in the 2016 assessment of 20 facilities. That leaves \$8 million in backlog unfunded with future assessments of additional facilities identifying more backlog
- Parking Lot Repairs: While the Capital Improvement Bond (CIB) provided funding to address the more publicly used parking lots, full replacement funding is needed for the Municipal Service Center and Public Safety Building parking lots



- **Energy Efficiencies and Renewables:** To achieve the city’s new climate action goals, extensive energy efficiency projects and additional renewables may be required for city facilities and operations
- **Electric Vehicle Infrastructure:** As the city visualizes a wider use of electric vehicles, support of a regional EV charging system may be needed in the transition from fossil fuels
- **New City Facilities:** In December 2015, the City purchased the BCH site with an option for the city consider, as part of a larger facilities–visioning process, consolidating city office space and public–facing services that are currently leased to the city in a number of locations. A thorough space analysis is being conducted in 2016 through early 2017 that will inform what new structures can be constructed, and where to consolidate and accommodate city office needs.
- **Other department major facility needs –** FAM continues to work with departments on their new facility needs such Fire & Rescue, Police in the Public Safety Building, Municipal Court, Human Services’ Master Plan, and expiring leases for Human Resources, Information Technology, Planning Development and Support, and Fire Administration.



Mapping

The mapping for CIP projects is now in a GIS-based electronic map [accessed here](#). All the map-able projects proposed for funding in the 2016–2021 are shown. If the icons are clicked, the project name, project number (referenced on the project sheets), department, funding source, and year with initial funding will be shown. For many projects the initial funding is currently showing as 2015 as projects have funding for planning and design before actual construction however, the construction timing may be in the future. Please consult the project sheets in each department section for project descriptions, phasing and funding information. Projects with funding earmarked for citywide or system improvements are not shown on the map. Ongoing refinement of the GIS-based map will result in greater clarity of project information.

Click here to access the FAM Master Plan. <https://www-static.bouldercolorado.gov/docs/fam-master-plan-2005-1-201304081131.pdf>

Click here to access all master plans for the City of Boulder. <https://bouldercolorado.gov/planning/department-master-plans-and-strategic-plans>



Project Name: Aquatics Facility Repairs

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** SYSTEM-WIDE
Project Number: 3158885715 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

As part of recommendations of the recreation master plan and the recently completed Aquatics Facility Study the department has identified deferred maintenance needs within Parks and Recreation existing facilities. The Parks and Recreation Department manages and 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.

Project Phasing

Planning: \$90,000 budgeted in 2016
 Construction: \$1,350,000.00 budgeted over 3 years

Public Process

Presented to the Parks & Recreation Advisory Board

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects have been scoped by the Parks and Recreation Department's approved Aquatics Study. See Aquatics Facility Repairs project.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	390000.00	\$0	\$0	\$723,000	\$0	\$253,000	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$1,366,000

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: BMoCA - Electrical Upgrade

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/FACILITIES & ASSET MNGMT

Subcommunity: CENTRAL BOULDER

Project Number: 3150123917

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

This project will replace outdated wiring and circuit breakers and add power capacity in support of BMoCA operations at the facility leased from the city. During events and public meetings hosted at BMoCA, power needs exceed circuit capacities, breakers are often tripped and need to be re-set, and extension cords need to be run to other circuit to provide the necessary power.

Project Phasing

Planning, Design and Construction: \$100,000 budgeted in 2017

Public Process

Facilities and Asset Management will work with BMoCA staff to minimize disruptions and impacts to their operations

DET/Impact Fees

N/A

Interdepartmental and Interagency Collaboration

N/A

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$100,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$100,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Brenton Building - Renovation

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** NORTH BOULDER
Project Number: 3155550117 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

The Brenton Building was included in the Boulder Community Hospital purchase and is the first building on the site being renovated. The building will be partially renovated in 2016 to accommodate the Finance Department in the first part of 2017. While the building is still largely vacated and the contractor mobilized, this project will provide deep energy retrofit to realize savings from the energy efficiency and set an example of working to achieve Boulder's Climate Commitment in our own city-owned and occupied buildings.

Project Phasing

Partial first phase renovation: \$680,000 budgeted with a \$740,000 ATB request.
 Second phase design and construction: \$1,500,000 budgeted. Design complete in 2017, construction complete in 2018.

Public Process

Building permits submitted for review and approval as required.

DET/Impact Fees

In accordance with the City's Development Excise Tax and Impact Fee consultants, the use of DET and Impact Fees at the BCH campus site aligns with the growth-related requirements for the use of these funds. The use of Development Excise Tax / Impact Fees places the City solidly on the path to complete the whole building renovations and infrastructure upgrades.

Interdepartmental and Interagency Collaboration

Project is being coordinated with future users of the facility which currently includes the Finance Department. Other departments that will move into the remainder of the building will be determined later in 2016.

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Capital Development	0.00	\$2,150,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$2,150,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$83,000 **Funding Source for O&M:**

Additional Annual O&M Description:
 for energy consumption and operations and maintenance



Project Name: City Facilities Analysis/Consolidat

Project at a Glance

Project Type: CIP-CAPITAL PLANNING STUDIES
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** SYSTEM-WIDE
Project Number: 3158886817 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

Boulder purchased the former Boulder Community Health site in December 2015, after Boulder Community Health relocated its acute care services to its new Foothills Hospital in East Boulder. The nonprofit put the 8.8-acre campus on Broadway between Alpine and Balsam Avenues up for sale, creating one of the biggest redevelopment opportunities in Boulder. Planning for this opportunity is part of the project now called "a Boulder Community Project: Alpine-Balsam" or Alpine-Balsam for short, based on the neighborhood cross streets near the site. The planning phase of the Alpine-Balsam project is just getting started in 2016 and will involve extensive public participation over the next few years that will inform changes to the Boulder Valley Comprehensive Plan and the result in design guidelines and goals that will shape discussions of future uses for the property. The city has retained a consultant team to lead the first phase of site planning, which will result in guiding principles for the site and a vision for city facilities, interfacing with the ongoing work at the Boulder Civic Area. This work will continue in 2017 and beyond with more detailed development of the site and new city facilities.

Project Phasing

Analysis of city Facilities: \$100,000 budgeted in 2016
 Continued analysis and planning of city Facilities: \$100,000 budgeted per year 2017 and 2018

Public Process

In 2016 there is an October study session planned with City Council to discuss the visioning process that will take place earlier this year under the guidance of a consultant. City Council will also be asked to review and comment on master plan options for the new facility and department locations as well as guiding principles for future development of all city facilities which will be further developed in 2017 into design guidelines

DET/Impact Fees

N/A

Interdepartmental and Interagency Collaboration

The Facilities and Asset Management group (FAM) is collaborating with the Planning Department on the development of the BCH site as well as within the Civic Area. As the project progresses, FAM anticipates collaborating further with Transportation and planning on the development of the site.

Change From Past CIP

no change

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$100,000	\$100,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$200,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**

Additional Annual O&M Description:



Project Name: Essential Facility Maintenance Proj

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** SYSTEM-WIDE
Project Number: 3158886717 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

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 22 facilities to work down backlogged items and replace building components on schedule.

Project Phasing

Construction: \$300,000 budgeted in 2017 for the two projects identified - Municipal Building air cooled water chiller and air handling unit replacement and Fire Station #7 roof replacement.
 Design and Construction: \$1,000,000 budgeted in 2018 to continue working down the maintenance backlog. FAM will provide a more detailed list of projects in the 2018 budget cycle.

Public Process

N/A

DET/Impact Fees

N/A

Interdepartmental and Interagency Collaboration

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$300,000	\$1,000,000	\$0	\$200,000	\$400,000	\$500,000
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$2,400,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Facility Assessments

Project at a Glance

Project Type: CIP-CAPITAL PLANNING STUDIES
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** SYSTEM-WIDE
Project Number: 3158885115 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

Funding is for study and analysis. Perform visual inspections and sampling of materials in city facilities to have an inventory of any asbestos, lead based paint and other indoor air quality concerns. Identify code and safety deficiencies in existing facilities. The inventory will provide awareness for building occupants, maintenance staff, construction personnel and emergency responders so as not to disturb the hazard. An inventory will also identify remediation projects, as needed. Expect a multi-year program to complete the 130-plus buildings managed by FAM and repeat the process.

Project Phasing

Total project cost is \$300,000.
 \$50,000 budgeted per year for the span of 6 years.

Public Process

None.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

FAM will coordinate with other departments in performing the inventory of the facilities and any subsequent remediation requirements so disruption to occupants and customers is minimized

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	150000.00	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000

Funding to Completion \$0
 Future Unfunded \$0

Total Funding Plan: \$450,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Fire Stations Major Maintenance

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** SYSTEM-WIDE
Project Number: 3158885515 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

The 24/7 occupancy of a fire station and its status as an essential facility 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 and dining areas. Work on Fire Stations 3 and 4 will be limited due to potential future replacements.

Project Phasing

Planning: \$12,000 budgeted in 2016
 Construction: \$108,000 budgeted in 2016

Public Process

Building permits will be submitted for as required

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects have been coordinated with the Fire and Rescue Department

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	120000.00	\$126,000	\$132,000	\$138,000	\$145,000	\$152,000	\$152,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$965,000

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Fleet - System Repairs/Replacements

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** CENTRAL BOULDER
Project Number: 3151154817 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

In the recent past, Fleet Services has made significant repairs and investments to the facility and equipment to include Energy Performance Contract upgrades in 2012 and 2013 for lighting upgrades, heat recovery, boiler replacement and controls, and a 46 kilowatt solar pV system. In 2014 and 2015, a high capacity lift was added, the inoperable wheel alignment rack was replaced and new tooling for mechanics purchased. In 2016, fleet software upgrades are being made along with leak detection enhancements to the fuel storage tanks. The Projects to be accomplished from 2017 to 2021 are shown in the project phasing section.

Project Phasing

In 2016 Facility Assessments included a whole building inspection of the Fleet Services building at the Municipal Services Center. The facility was constructed in 1989 and is in need of system replacements that are beyond their useful service life. Specifically by year:
 2017 - Replace 16 roll-up door motors - \$80,000
 2018 - Replace fire alarm and detection systems - \$220,000
 2020 - Replace mechanical room heating and ventilation system - \$80,000
 2021 - Replace vehicle bay infrared heaters in 2 bays - \$80,000
 These projects are funded by the Fleet Services FR&R fund, which is generated as an internal service fund by work and services performed by the Fleet staff.

Public Process

N/A

DET/Impact Fees

N/A

Interdepartmental and Interagency Collaboration

The City's internal Fleet Services Advisory Board made up of representatives from various City departments provide guidance and approval of the fleet upgrades planned.

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$80,000	\$220,000	\$0	\$80,000	\$0	\$80,000
					Funding to Completion \$0		Future Unfunded \$0

Total Funding Plan: \$460,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**

Additional Annual O&M Description:



Project Name: Main Library Restroom Renovation

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** CENTRAL BOULDER
Project Number: 3158886517 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

This project is to construct gender neutral restrooms at the Main Public Library. Analysis and design options are being developed in 2016 to identify possible locations and costs for this renovation.

Project Phasing

Construction: \$75,000 budgeted in 2017 with anticipated completion in 2017; depending on the planning and design, future CIP projects may be programmed.

Public Process

The 2016 planning and design will be reviewed by the appropriate board; for example, the library facilities by the Library Commission; Recreation Centers by the Parks and Recreation Advisory Board. Public comment has been received from the members of the LGBTQ community.

DET/Impact Fees

N/A

Interdepartmental and Interagency Collaboration

Facilities and Asset Management consults include Human Resources, Library and Arts and Parks and Recreation departments.

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$75,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$75,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**

Additional Annual O&M Description:



Project Name: Martin Park Shelter Major Maint

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/FACILITIES & ASSET MNGMT

Subcommunity: SOUTH BOULDER

Project Number: 3150340215

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

The P&R Round 1, Capial 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 flatework. 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.

Project Phasing

Planning: \$16,000 budgeted in 2017

Construction: \$153,000 budgeted in 2017

Public Process

None. Project design will be reviewed during the normal permitting process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will be coordinated with the Parks and Recreation Department.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$0	\$0	\$0	\$0	\$169,000	\$0
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$169,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Miscellaneous Facility DET Proj

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** SYSTEM-WIDE
Project Number: 3158885315 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

City's participation in accomplishing small projects and advance project planning, less than \$50,000 each, that are done in conjunction with other new construction or expansion projects related to growth. Previous projects include: Valmont Butte engineering and environmental studies, Children, youth and Family Services Addition, Outfitting the University Hill Police Annex and Public Safet Building Space Analysis.
 The project includes Misc DET
 Civic Area DET budget
 Civic Area GF budget

Project Phasing

Public Process

Any public process will be identified in conjunction with the overall project development. Project design will be reviewed by the Planning Department. Futher design reviews will be conducted by the Landmarks Board, Design Advisory Board and/or Planning Board as appropriate.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will be coordinated with the affected departments on the project.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Capital Development	97904.59	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
						Funding to Completion \$0	
						Future Unfunded \$0	
General	197629.50	\$0	\$0	\$0	\$0	\$0	\$0
						Funding to Completion \$0	
						Future Unfunded \$0	

Total Funding Plan: \$595,534

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Misc Facility Maintenance Projects

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/FACILITIES & ASSET MNGMT

Subcommunity: SYSTEM-WIDE

Project Number: 3155904615

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status:

Project Description

Replacements funded with this project include replacement of HVAC systems, boilers, parking lot repairs, and various other building systems.

Project Phasing

Public Process

Any project associated with these funds will be taken through the appropriate public process and CEAP review as part of the conceptual design if needed. Project design will be reviewed by the Planning Department. Further design reviews will be conducted by the Boards and Commissions as appropriate.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will be coordinated with the affected departments to reduce occupant and customer impacts.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	862510.00	\$380,000	\$400,000	\$400,000	\$450,000	\$400,000	\$500,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$3,392,510

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Misc Space Needs and Analysis

Project at a Glance

Project Type: CIP-CAPITAL PLANNING STUDIES
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** SYSTEM-WIDE
Project Number: 3158883614 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

To support facility space needs analysis of General Fund departments in support of a master plan, to accommodate staff growth or unanticipated relocation.

Project Phasing

Total project cost: \$480,000.
 \$80,000 budgeted each year over the span of 6 years

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Work closely with department to identify space needs associated with facility needs identified in the master plan updates.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	176627.50	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$656,628

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: MSC - Bldg A - Replace Central AHU

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:**
Project Number: 3150024517 **BVCP Area:**
CEAP Required: No **CEAP Status:**

Project Description

The Facilities Strategic Plan has identified the central air handling unit for replacement at the Municipal Service Center - Building A. The air handling unit is beyond expected service life, exhibiting corrosion on the fans and exterior cabinet panels.

Project Phasing

Design and Construction: \$80,000 budgeted in 2017.
 Design and Construction will be completed in 2017.

Public Process

N/A

DET/Impact Fees

N/A

Interdepartmental and Interagency Collaboration

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$80,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$80,000

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: MSC - Building A - Roof Replacement

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/FACILITIES & ASSET MNGMT

Subcommunity: EAST BOULDER

Project Number: 3150024417

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

The roof for the Municipal Service Center - Building A was identified for replacement in the Facilities Strategic Plan. The assessment confirmed the roof is beyond its expected service life due to the rock ballast which has melted into the roof and large cracks and bubbles found in several locations.

Project Phasing

Design and Construction: \$240,000 budgeted in 2017
Design and Construction will be completed in 2017.

Public Process

N/A

DET/Impact Fees

N/A

Interdepartmental and Interagency Collaboration

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$240,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$240,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: N Boulder Park Shelter Repair

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/FACILITIES & ASSET MNGMT

Subcommunity: CENTRAL BOULDER

Project Number: 3150330215

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

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.

Project Phasing

Planning: \$12,000 budgeted in 2017

Construction: \$108,000 budgeted in 2017

Public Process

None. Project design will be reviewed during the normal permitting process.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will be coordinated with the Parks and Recreation Department.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$0	\$0	\$0	\$0	\$120,000	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$120,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:

No additional operating costs are anticipated



Project Name: Recreation Facility Repairs

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** SYSTEM-WIDE
Project Number: 3158885615 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

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. Pending the outcome and strategies of the Recreation Facility Strategic Plan, this project will fund the initial implementation projects outlined within the plan.

Project Phasing

Planning: \$50,000 budgeted in 2017
 Construction: \$450,000 budgeted in 2017

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects will be scoped and better defined after the approval of the Recreation Center Study. See Recreation Facility Repairs project.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$500,000	\$0	\$500,000	\$0	\$0	\$0
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,000,000

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: West Senior Center Maj Maint & Reha

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** CENTRAL BOULDER
Project Number: 3150254715 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

This project provides refurbishment and replacement of the facilities including HVAC, electrical and plumbing systems. It renews all surface finishes including carpet, paint and ceilings. 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. Provides for requirements under the new 2010 ADA standards. Replaces 1995 roof sections as required.

The kitchen was remodeled in 2006 by Meals on Wheels at the cost of approximately \$400,000. This cost has been subtracted from the estimated refurbishment cost noted in the 2005 FAM Master Plan of \$1,228,000, leaving an estimated cost of \$828,000. Additional work was accomplished in the Energy Performance Contracts and a \$140,000 refurbishment of the office areas was performed due to the Sept 2013 flood.

This project is scheduled for 2019, but may change depending on the outcomes of the Civic Area Plan and the Human Services Department Master Plan.

Project Phasing

Planning: \$70,000 budgeted in 2019
 Construction: \$630,000 budgeted in 2019

Public Process

Project design will be reviewed during the normal permitting process and the master plan portions affecting this project will be approved by City Council

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will be coordinated with the Human Services Department and the Civic Area planning process.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$0	\$0	\$0	\$700,000	\$0	\$0
					Funding to Completion	\$0	\$0
					Future Unfunded	\$0	\$0

Total Funding Plan: \$700,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Tantra Shop Renovation

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** SOUTH BOULDER
Project Number: 3150400415 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

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.

Project Phasing

Planning: \$30,000 budgeted in 2022
 Construction: \$270,000 budgeted in 2022

Public Process

Future of Tantra property will be part of the Park and Recreation Master Plan

DET/Impact Fees

Interdepartmental and Interagency Collaboration

FAM will continue to coordinate with Parks and Recreation in identifying future renovation and replacement needs for the Tantra Park Shop

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$0	\$0	\$0	\$0	\$0	\$300,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$300,000

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Upgrade Radio Communications Sites

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/FACILITIES & ASSET MNGMT **Subcommunity:** SYSTEM-WIDE
Project Number: 3158886617 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

This project will provide system-wide enhancements to the city's radio communication infrastructure sites. The scope will be determined by the 2016 Radio Infrastructure Study. That study is determining the city's interim and future radio system needs and will likely require enhancements to the current site(s) that may include expanding the radio building envelopes, providing back-up power, adding heating and cooling and repairing roof systems at locations that will be vital to providing the service levels and coverage needed.

Project Phasing

In 2016, a CIP was approved for the Radio System Analysis. That analysis will update the existing radio system inventory, provide a strategic plan for replacements and upgrades needed to have reliable radio communication throughout the city, now and into the future. For the analysis, funding was split 75% to the General Fund and the remaining 25% covered by Utilities, Transportation, Open Space & Mountain Parks and Parks and Recreation.

Public Process

None

DET/Impact Fees

N/A

Interdepartmental and Interagency Collaboration

The 2016 Radio Infrastructure Analysis will include consultation with Boulder County Emergency Operations and with other agencies that the City has mutual aid or response agreements

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Facility Renovation & Replace	0.00	\$200,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$200,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:

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Overview of Department Mission

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

Funding Overview

The Fire Department is funded by the General Fund. Currently there is no specific capital funding source for General Fund departments and capital needs are addressed on a case by case basis, as funds are available. Strategies for addressing unfunded capital needs are being developed (see Appendix A) and will be presented to council in the coming months.

Potential sources of funding for the capital projects noted below include each of the following or any combination of:

- An increase in sales and use tax,
- An increase in property tax mill levy,
- Bond funding, or
- Use of existing operating funding to build a capital fund or pool of money available for capital projects.
- Use of impact fees and DET

Current Focus for Capital Planning and Projects in 2017

As a part of the overall capital funding strategic work, capital needs for the Fire Department are being evaluated, including capital improvements over the next several years that would include land acquisition for fire station 3 and allow for an increase in Emergency Medical Services to include ambulance or rescue type vehicles.

Highlights

Projects expected to be completed in 2016

The department requested proposals for a replacement station alerting system anticipated to be operational by second quarter of 2016. The new technology will allow for simultaneous dispatch of multiple stations and automated information flow to reduce emergency response times. This



project was not identified in a previous CIP but was identified and presented to City Council at a study session in early 2015. Funding was identified from the General Fund to facilitate this safety improvement.

Priority Projects for 2017

None

Highlights of 2018 – 2022 Projects

None

Guiding Principles and Project Prioritization

CIP Guiding Principles

The fire station projects are guided by strategies and initiatives in the 2012 Fire-Rescue Master Plan. All of the listed projects help the Fire Department maintain and improve public safety. Proper fire station location improves accessibility to services provided to the community by the Fire Department and ensures a timely response to emergencies occurring in the neighborhood. The construction or remodel of facilities will use Leadership in Energy and Environmental Design (LEED) targets to ensure energy efficiency. Each project listed identifies the estimated on-going funds needed to operate and maintain the project.

Prioritization

Projects listed below in Unfunded Projects and Emerging Needs are in priority order based on the critical need, degree of deficiency in each project, and the degree to which the project advances efficiency or community livability goals. Station 3 relocation is listed first because of its susceptibility to flooding and impact to our emergency response system if it were out of service. The remaining facilities' positions on the list reflect the degree to which each station does not fulfill the department's needs for effective, efficient and safe fire station design.

In the fall of 2014, the City of Boulder hired Trestle Strategy Group to conduct a space needs assessment of Fire Station 3, based on recommendations of the 2012 master plan update which identified Station 3 as the highest priority. The master plan update also recommended an evaluation of the location, size and design of all our fire stations for effectiveness. Station replacement prioritization is based on preliminary analysis of our stations' age, size and location.

Projects Not in Master Plans

The following projects are not specified in the Master Plan and are added here because of their expense, over \$50,000, and life cycle of at least 15 years:

- Warehouse Storage Facility
- Fire Training Center (FTC) Phase 2: driving area and storage building
- FTC Phase 3: additional classroom, office and conference room space.



Operation and Maintenance Impacts

The primary Fire Department emerging need is to relocate and/or renovate facilities. Three of the seven existing fire stations are over fifty years old and all are inadequately sized for today's needs and future capacity. A comprehensive community risk analysis is underway including response times from existing stations and emergency call demand loads. Preliminary findings demonstrate potential better locations for some stations and reaffirm others are correctly located. Further analysis is needed before final recommendations on station relocations are made. Analysis will continue with the help of a newly hired analyst with results available by 4th quarter 2016 to be implemented into the fire department standards of cover.

Projects Not Previously Identified in a CIP

As noted above, the replacement of the system wide fire alerting system had not previously been included in a CIP. Due to the potential life-saving impact of increased response time with an upgraded system and with one-time General Fund dollars identified, this was added to the 2015 CIP.

On-going operation and maintenance projections for fire station replacements are listed below.

Deferred, Eliminated, or Changed Projects

None

Unfunded Projects and Emerging Needs

Identified unfunded projects include:

- Relocate Fire Station 3 out of the 100-year floodplain, and construct a separate storage facility for fire vehicles and equipment storage
 - In 2011, 13 sites were identified as potential locations for Station 3. After analyzing multiple criteria, six sites remained. Since that time, meetings have been conducted on various sites in an attempt to narrow the focus and make an offer on a suitable site. The process is ongoing with approval from the CM office.
 - Estimated cost for FS 3 is \$5,100,000 (17,000 sq ft x \$300 sq ft to build), property estimate is \$4,500,000 depending on location and availability
 - The current storage facility for apparatus and equipment is an OSMP facility that the Fire Department was using on a temporary basis. BFD is in need of 6000-10000 square feet of warehouse space for lease (\$15-\$20 per square foot) or purchase (\$100-\$120 per square foot) to accommodate storage of apparatus and equipment to ensure better accountability and improve support service processes.
 - Estimated cost to build a warehouse is \$1,200,000 (10,000sq ft x \$120.00 sq), property estimate is \$2,500,000 depending on location and availability. Ongoing cost would be approximately \$65,000.00



- Replace Fire Station 4 north of the current location of 4100 Darley Avenue.
 - Constructed in 1967 with 2,000 square feet this station is too small and needs to be 6,514 square feet to house one fire engine and crew.
 - Estimated costs are: building \$2,442,750, land acquisition up to \$2,000,000, annual operations and maintenance \$165,000
- Remodel Fire Station 6 currently located at 5145 N 63rd Street
 - Constructed in 1979 with 3,435 square feet this station is too small and needs to be 6,514 square feet to house one fire engine and crew.
 - We are currently exploring the possibility of co-locating our fire engine and crew with Boulder Rural in their station located at 6230 Lookout Rd. The building and land at Station 6 could be sold.
 - If this is not possible costs are estimated at: One-time \$1,154,625 for remodel, On-going \$165,000 for maintenance.
- Remodel Fire Station 2 at the current location of 2225 Baseline Road.
 - Constructed in 1959 with 4,752 square feet this station is too small and needs to be 15,000 square feet to house one fire engine, one type 6 wildland engine and one ambulance with crews. Remodel would be contingent on the possible historical designation
 - Estimated costs are: one time building construction \$3,842,000, land acquisition up to \$3,500,000, annual maintenance \$229,500.
- Remodel Fire Station 5 at the current location of 4365 19th Street.
 - Constructed in 1992 with 3,622 square feet this station is too small and needs to be 6,514 to house one fire engine and crew. Remodel is contingent of possible flood plain problems.
 - Estimated costs are: one time building cost \$1,084,500, annual maintenance \$229,500
- Remodel Fire Station 1 at the current location of 2441 13th Street.
 - Constructed in 1957 at 7,941 square feet this station is too small and poorly designed. It needs to be 17,000 square feet to house one fire engine, one ladder truck, one ambulance and crews plus a battalion chief.
 - Estimated costs are: one time building \$3,397,125, annual maintenance \$128,800
- Remodel Fire Station 7 at the current location of 1380 55th Street.
 - Constructed in 2000 with 5,081 square feet this station is too small and needs to be 8,006 square feet to house one fire engine, the Hazardous Materials Team and crew.
 - Estimated costs are: one time building \$1,096,875, annual maintenance \$42,000.
- Fire Training Center Phase 2 – Driving area and storage building
 - Construct a concrete driver training area totaling approximately 200,000 square feet. This was approved as a future phase of improvements in the original development approval. Construct a 10,000 square foot storage building for training props and equipment.



- Estimated costs are: Concrete \$2,500,000, Building \$2,250,000, annual maintenance \$60,000.
- Fire Training Center Phase 3 – Additional classroom and office space.
 - To complete the original design of facilities eliminated in the construction due to budget constraints add more classrooms, offices and conference room space totaling 4,000 square feet.
 - Estimated costs are: One-time \$1,500,000, on-going \$56,000.

Click here to access the Fire-Rescue Master Plan. <https://www-static.bouldercolorado.gov/docs/fire-master-plan-1-201306031433.pdf>

Click here to access all master plans for the City of Boulder. <https://bouldercolorado.gov/planning/department-master-plans-and-strategic-plans>



Table 10-1: Unfunded Projects

Description	One-Time			On-Going
	Building	Land	Equipment	
Station 3	\$5,100,000	\$4,500,000	\$ 0	\$ 459,000
Warehouse Storage	\$1,200,000	\$2,500,000	\$ 0	\$ 65,000
Station 4	\$ 2,442,750	\$ 2,000,000	\$ 0	\$ 165,000
Station 6	\$ 1,154,625	\$ 0	\$ 0	\$ 165,000
Station 2	\$ 3,842,000	\$ 3,500,000	\$ 0	\$ 229,500
Station 5	\$ 1,084,500	\$ 0	\$ 0	\$ 229,500
Station 1	\$ 3,397,125	\$ 0	\$ 0	\$ 128,800
Station 7	\$ 1,096,875	\$ 0	\$ 0	\$ 42,000
FTC Phase 2	\$ 4,750,000	\$ 0	\$ 0	\$ 60,000
FTC Phase 3	\$ 1,500,000	\$ 0	\$ 0	\$ 56,000
TOTAL	\$25,567,875	\$12,500,000	\$ 0	\$1,599,800

City of Boulder

INFORMATION TECHNOLOGY

2017–2022 Capital Improvement Program

Overview of Department Mission

The mission of the Information Technology (IT) Department is to create an environment of seamless integration between people and technology. Our services include long-range technology planning; citywide hardware/software procurement; support for employee workstations, servers, and databases; disaster recovery and business continuity; systems security; fiber optic network infrastructure; business analysis; custom application development; and support for numerous mission critical applications such as payroll, web technologies, and public safety.

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.

Beginning in 2010 the city has appropriated approximately \$350k per year from the General Fund to an Information Technology CIP. Though often supplemented by limited operating transfers from departments such as IT, this allocation has been the primary, predictive revenue source for IT capital investments, particularly major software procurements. To date the majority of this funding has been dedicated to supplement the critical, bond-funded finance, human resources and payroll system replacement project. As this project nears completion, work has started on replacement of the enterprise permit and licensing system as well as initial planning for implementation of a citywide asset maintenance management



The City of Boulder website.



software system. These projects were all partially funded by the Capital Improvement Bond (CIB) Fund projects managed by IT. CIB funding is indicated by the following symbol: 

Current focus for capital planning and projects in 2017

For 2017 there will be limited hardware replacements completed. Work will continue on several big projects started in 2015 and 2016, but will not be completed until 2017 or 2018. They include:

- New permits, licensing and land records system implementation (2015 – 2017)
- Asset and maintenance management software improvements (2016–2017)
- Incremental central telephone system hardware and software upgrades (2016–2019)

Project Highlights

Projects Expected to be Completed in 2016

- Server Hardware Replacement: The city’s virtual server hardware, software and storage systems are scheduled to begin replacement in 2015. This will include not only upgrades to central computer hardware, but will add an analysis of current and emerging storage and server technologies to ensure an optimal solution with available funds. (Funded by earmarked Computer Replacement Fund reserves). The vendor selection and design work started in 2015, but hardware replacement will not be complete until 2016.
-  Complete the implementation of payroll and human resources modules of Tyler Munis system: Following final configuration, testing and staff training activities, the new payroll and human resources modules of the Tyler Technologies “Munis” system are fully operational early in 2016. (Funded by bond proceeds and IT CIP)

Priority Projects for 2017

- Continue implementation of new integrated permits, licensing and land records system: Following a needs assessment and procurement process undertaken in 2013, the EnerGov system was selected in early-2014 and implementation of this critical system replacement project began in early-2015. The new system is estimated to reach live operation by the first quarter of 2017. (Funded by bond proceeds and restricted fund operating reserves)
- Asset and Maintenance Management software improvements: After concluding that the asset and maintenance management capabilities of the Tyler Munis (financial software) and EnerGov (permits and licensing software) products were not sufficient to meet citywide business needs,



a consultant was engaged to undertake an organization-wide reassessment of automation needs and business process improvement opportunities in these areas. A pilot project has started in the Utilities department.

Highlights of 2018–2022 Projects

- Ongoing implementation of document management implementation program (2015–2017)
- New permits, licensing and land records system implementation (2017)
- Asset and maintenance management software improvements (2016–2017)
- Incremental capital maintenance replacements of network hardware, end user devices and database server hardware
- Incremental central telephone system hardware and software upgrades (2016–2019)
- Majority of city's Network hardware will be replaced beginning in 2019 with project completion in 2020.

Guiding Principles and Project Prioritization

Proposed projects in the 2017–2022 CIP are consistent with the CIP guiding principles focusing on maintaining and enhancing the supporting city-wide business systems over the long term.

Prioritization

A major update to the IT Strategic Plan is currently underway covering the period from 2017 to 2020 that will inform future capital needs and priorities. The IT funding study conducted in 2015 reaffirmed the need to create an organization wide savings plan for software replacement, inclusive of both enterprise wide systems as well as departmental business tools.

Projects Not in Master Plan

None.

Operation and Maintenance Impacts

Assets funded by IT managed internal service funds are added to the replacement plan, and on-going maintenance costs are budgeted there. Historically the department has been able to accommodate changes or operating costs within the model with little to no increase in end user rates.



Projects Not Previously Identified in a CIP

None

Deferred, Eliminated, or Changed Projects

All projects have been adjusted to reflect current cost estimates and project timing.

Unfunded Projects and Emerging Needs

Though critical, short-term technology investment needs have been significantly aided by the one-time funding from the recent capital bond initiative, current annual IT CIP funding allocations of roughly \$350k annually will not address the funding needs associated with new, emerging software-based automation opportunities that will continually arise. In addition, current ongoing CIP funding will not address the need to accumulate reserves for future replacements and/or expansion of critical enterprise software (e.g. finance and payroll) and departmental systems (e.g. police records management, parks and recreation registration, court case management and many others).

From a broader perspective, the Computer Replacement and Telecommunication internal service funds currently used to accumulate reserves for future IT infrastructure replacement (e.g. PCs, networks, servers, telephones, etc) are based on a funding model that only accounts for the replacement of current systems. As central and mobile computing infrastructure (e.g. mobile devices, wireless networks, virtualized servers, associated security systems), data storage, and use of cloud-based applications and data storage expand significantly over the next several years, we lack capital funding to address changes in infrastructure capacity needs to sustain them.

A focus of the pending major update to the IT Strategic Plan (2017–2020) will include identification and costing of expanded automation and deferred capital replacement needs. At a basic level, it is anticipated that the updated plan will move beyond planning for the needs of only enterprise systems (those impacting nearly all departments) by expanding to include the critical business and automation needs of individual departments – including current critical systems without future replacement funding strategies. The growth of electronic services, mobile computing, hardware and software virtualization and cloud computing (all of which the City is pursuing in current CIP projects or smaller tactical projects) will also be a key theme of the new plan.



Click here to access the Information Technology Strategic Plan. <https://www-static.bouldercolorado.gov/docs/it-strategic-plan-1-201309241228.pdf>

Click here to access all master plans for the City of Boulder. <https://bouldercolorado.gov/planning/department-master-plans-and-strategic-plans>

Table 11-1: 2017-2022 Funding Summary By Department

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
INFORMATION TECHNOLOGY	Department Total	\$ 7,029,857	\$ 927,873	\$ 974,343	\$ 1,802,277	\$ 1,287,119	\$ 1,203,067	\$ 835,179
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 7,029,857	\$ 927,873	\$ 974,343	\$ 1,802,277	\$ 1,287,119	\$ 1,203,067	\$ 835,179
	Data Backup and Disaster	\$ 122,234	\$ 41,895	\$ 80,339	\$ -	\$ -	\$ -	\$ -
	Database Hardware Replacement	\$ 77,900	\$ -	\$ -	\$ 25,900	\$ 42,000	\$ 10,000	\$ -
	End User Device Replacement	\$ 3,576,372	\$ 619,147	\$ 567,449	\$ 604,629	\$ 570,950	\$ 561,350	\$ 652,846
	Network Hardware Replacement	\$ 2,640,351	\$ 226,968	\$ 237,155	\$ 1,112,180	\$ 671,969	\$ 209,746	\$ 182,333
	Security Administration	\$ 62,861	\$ 1,862	\$ -	\$ 30,068	\$ -	\$ 30,931	\$ -
	Server Hardware Replacement	\$ 550,140	\$ 38,000	\$ 89,400	\$ 29,500	\$ 2,200	\$ 391,040	\$ -

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Project Name: Data Backup and Disaster Recovery

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: INFORMATION TECHNOLOGY **Subcommunity:** SYSTEM-WIDE

Project Number: 1901901520 **BVCP Area:** SYSTEM-WIDE

CEAP Required: No **CEAP Status:**

Project Description

The project reflects the hardware, software and support needed to ensure reliable high speed backup of files, databases and application 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. No major changes are planned to this system until late 2018 / early 2019.

Project Phasing

This is an ongoing program.

Public Process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Change From Past CIP

Updated to reflect latest estimates for timing and cost

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Computer Replacement	0.00	\$41,895	\$80,339	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$122,234

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**

Additional Annual O&M Description:



Project Name: Database Hardware Replacement

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: INFORMATION TECHNOLOGY

Subcommunity: SYSTEM-WIDE

Project Number: 1901901530

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status:

Project Description

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.

Project Phasing

This is an ongoing program, designed to fund the periodic replacement of database servers. Timing is dependent on age of exiting hardware and projected useful life of current equipment.

Public Process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Change From Past CIP

Updated to reflect latest estimates for timing and cost

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Computer Replacement	10000.00	\$0	\$0	\$25,900	\$42,000	\$10,000	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$87,900

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: End User Device Replacement

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: INFORMATION TECHNOLOGY **Subcommunity:** SYSTEM-WIDE
Project Number: 1901901505 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

Funding for replacement of PCs, printers, and other end user hardware.

Project Phasing

This is on-going annual funding for purchase of hardware with useful life of 3-5 years.

Public Process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

City-wide Enterprise service supporting all city departments.

Change From Past CIP

Adjusted to reflect planned replacement timing of assets

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Computer Replacement	977,449.00	\$619,147	\$567,449	\$604,629	\$570,950	\$561,350	\$652,846
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$4,553,821

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Network Hardware Replacement

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: INFORMATION TECHNOLOGY **Subcommunity:** SYSTEM-WIDE
Project Number: 1901901511 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

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. In years 2016 – 2018, a limited amount of the city’s network hardware will be replaced as part of on-going system maintenance plans. In 2019, nearly 50% of the system is due for replacement resulting in significant changes to the city’s overall network infrastructure at that time. Another 25% will be replaced during 2020.

Project Phasing

This is an ongoing program.

Public Process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Change From Past CIP

City-wide enterprise project supporting all city departments.

Updated to reflect most current information available on replacement

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Computer Replacement	197896.00	\$226,968	\$237,155	\$1,112,180	\$671,969	\$209,746	\$182,333
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$2,838,247

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Security Administration

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: INFORMATION TECHNOLOGY **Subcommunity:** SYSTEM-WIDE
Project Number: 1901901517 **BVCP Area:** SYSTEM-WIDE
CEAP Required: N/A **CEAP Status:**

Project Description

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. A majority of the systems are due for replacement in 2016. Planning of future enhancements will be included in the upcoming IT Strategic Plan redevelopment process.

Project Phasing

This is an ongoing program.

Public Process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Change From Past CIP

Updated to reflect latest timing and cost information

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Computer Replacement	8724.00	\$1,862	\$0	\$30,068	\$0	\$30,931	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$71,585

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Server Hardware Replacement

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: INFORMATION TECHNOLOGY **Subcommunity:** SYSTEM-WIDE
Project Number: 1901901515 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

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.

During 2016 the city's virtual server farm and Network Attached storage will be replaced. This project was originally scheduled for 2015.

Project Phasing

This is an ongoing program.

Public Process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Change From Past CIP

Updated to reflect latest information on cost and timing

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Computer Replacement	398539.68	\$38,000	\$89,400	\$29,500	\$2,200	\$391,040	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$948,679

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:

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Overview of Department 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.

Funding Overview

The Library and Arts department is funded through a combination of the General Fund and Library Fund support although the General Fund provides more than 90% of the support. The Library department does receive dedicated Capital Facility Impact Fees that can be used to support capital expansion of library facilities. Outside of that funding source, there is no dedicated funding source for major capital projects at the Library and Arts department. Ongoing renovation and maintenance oriented capital needs are addressed on a case-by-case basis in conjunction with the Facilities and Asset Management 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 and Arts department is sourced through the following:

- An increase in sales and use tax,
- An increase in property tax mill levy,
- An increase in Capital Facility Impact Fees,
- Third-party grants and donations,
- Bond funding,
- Use of existing operating funding to build capital fund or pool of money available for capital projects.

Current Focus for Capital Planning and Projects in 2017

The Library Department is currently undergoing a Master Plan update with expected completion in the first quarter of 2017. This master plan is re-envisioning Library services and spaces and it will



serve as a catalyst for future capital planning efforts. The current Library Master Plan from 2007 identified a number of space needs which were addressed in the \$4.8 million Library renovation that was funded with 2011 Capital Bond dollars.

Meanwhile, the Office of Arts and Culture completed the Community Cultural Plan in late 2015 and is developing a complementary Public Art Policy which will inform implementation of a public art program within the city. This program will have a substantive capital component. Concurrent to this effort, the Office of Arts and Culture is managing the initial deployment of up to \$600,000 in funding dedicated to a series of public art projects throughout the city. These revenues are being generated through the pay-as-you-go Community, Culture and Safety Tax.

Highlights

Projects Expected to be Completed in 2016

- Public Art: Boulder Junction Garage East Face (\$50,000); North Boulder (\$70,000), Neighborhood Projects (\$70,000)
- Renovation of the Meadows Branch (\$160,000)
- Automated Materials Handling Machine Improvements at Reynolds Branch (up to \$490,000)
- Makespace (Bldg. 61) Completion at Main Library (\$60,000)

Highlights of 2017–2021 Projects

- None

Guiding Principles and Project Prioritization

CIP Guiding Principles

Any future Library and Arts Department capital projects will be developed in alignment with CIP Guiding Principles. They will be fully supported by Master Plans, leverage outside funding sources where possible, and rely on collaboration with other departments so as to efficiently leverage internal resources and expertise.

Prioritization

Future and on-going capital needs will be identified and prioritized through the updated Library Master Plan, Community Cultural Plan, and Public Art Policy.



New Facilities or Infrastructure Projects

None

Operation and Maintenance Impacts

Please see Facilities and Asset Management Section for more details.

Deferred, Eliminated, or Changed Projects

None.

Unfunded Projects and Emerging Needs

In conjunction with the soon-to-be-completed Library Master Plan, the Library will incorporate new initiatives into the planning and budget processes as city resources allow. The Office of Arts and culture will take the same approach in concert with their governing documents. A few examples of a major potential future capital projects within the Library and Arts department are the construction of a new library branch located in North Boulder and library service expansion in Gunbarrel.

Click here to access the Library Master Plan. <https://boulderlibrary.org/about/library-master-plan/>

Click here to access all master plans for the City of Boulder. <https://bouldercolorado.gov/planning/department-master-plans-and-strategic-plans>

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City of Boulder

OPEN SPACE AND MOUNTAIN PARKS

2017–2022 Capital Improvement Program



Overview of Department Mission

The City of Boulder’s Open Space and 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 and Mountain Parks has focused on a reorganization of the work force and filling vacant and new positions created in the organization. OSMP leadership has used the charter as a guide to identify CIP project priorities that fit within the Sustainability Framework. The top priorities for 2017 including completing the recovery of damage caused by the September 2013 flood in order to qualify for FEMA reimbursement, working to implement the priorities of several OSMP management plans and working with partners to develop regional trails. The 2017–2022 CIP represents a marked shift towards system stewardship and taking care of existing



infrastructure. In addition, OSMP will be working on an update to the Visitor Master Plan which will be recast as the Open Space Master Plan.

Funding Overview

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

- Approximately 92 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 and which has no sunset; and 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.
- Open Space and Mountain Parks also expends Lottery Funds on CIP projects. 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.

Current Focus for Capital Planning and Projects in 2017

While core service delivery continues throughout the year, OSMP also is pursuing high profile community initiatives in support of board and council goals. Those community initiatives translated into department priority projects are as follows:

- Complete Flood Recovery of Trails and Habitat that are FEMA reimbursable and continue work on flood projects that are not reimbursable (includes county coordination);
- Visitor Master Plan Update to be Recast as Open Space Master Plan or OS(MP)² – Continue plan, completing it in 2019 – establishes 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;
- Implement Top Priorities of West TSA, North TSA, Agricultural Resource Management Plan, and reduce facility deficiencies and maintenance backlogs.
- Continue to Implement Grassland Ecosystem Management Plan and Forest Ecosystem Management Plan (FEMP), giving special attention/guidance to elements that need updating or refreshing, particularly the FEMP; and
- Develop Regional Trails through strategic property acquisition, coordination with other agencies, and other avenues as needed (e.g., Eldorado to Walker Ranch, Joder and the Boulder



Creek Path extension).

Project Highlights

Projects Expected to be Completed in 2016 by Service Area

Community Connections and Partnerships

- North Trail Study Area Plan approved by Open Space Board of Trustees and City Council, planning and permitting for implementation of priority projects begins

Resources and Stewardship

- Continue recovery efforts stemming from the September 2013 flood
- Forest Management – thin 165 acres of forested land in the mountain backdrop to restore forest health and reduce fire risk
- Agricultural fences – clean flood debris out of fences, repaired fences
- Improve and add structures to organic farmsteads
- Continue repair of historic buildings on farmsteads, including Hartnagle and Hunter Kolb

Trails and Facilities

- Complete repairs on several trails damaged in the September 2013 flood
- Begin design work on Fourmile Creek Bridge
- Implement priorities of the West Trail Study Area, including 3rd Flatiron Descent, Sunshine Crossing Trail, and Long Canyon re-route
- Begin a Facilities Assessment to prioritize investment in structures across the Open Space system

Priority Projects for 2017 by Service Area

Community Connections and Partnership

- Begin the Visitor Master Plan update, to be recast as the Open Space Master Plan

Resources and Stewardship

- Complete resource recovery efforts stemming from the September 2013 flood
- Improve and add structures to organic farmsteads
- North TSA – begin resource protection measures identified in the North TSA
- Grassland Ecosystem Management Plan – implement resource conservation projects in the Grassland Management Area Plan



- Forest Ecosystem Management Plan (FEMP) – continue implementation of the FEMP by thinning 200 acres of forested land in the mountain backdrop to restore forest health and reduce fire risk
- Continued repair of historic buildings

Trails and Facilities

- Complete the repair and restoration of trails damaged in the September 2013 flood
- Continue to implement priority projects of the West TSA Plan, including designing Chapman Drive Trailhead and Flagstaff Summit Improvements
- Begin planning and design work on recommendations of the North TSA Plan
- Construction and installation of the bridge over Fourmile Canyon Creek on Foothills Trail
- Create and implement a plan to reduce deferred maintenance and repair on all OSMP structures as determined by facilities assessment consultant.

Highlights of 2018–2022 Projects

Community Connections & Partnerships

- Complete the Open Space and Mountain Parks Master Plan
- Complete the East Trail Study Area Plan in 2020 with implementation in 2021 and beyond

Ecological Systems

- Completion of restoration projects called for in the West TSA Plan
- Substantial completion of restoration projects called for in the North and East TSA Plans and in the Open Space Master Plan
- Substantial completion of agricultural projects called for in the Agricultural Management Plan
- Goodhue Ditch fish passage project – construct fish passage on the Goodhue Ditch diversion structure to improve habitat for native and sport fish in South Boulder Creek
- Riparian Area Restoration – substantially complete restoration of streams and riparian areas impacted by flooding
- Repair and renovate major farmstead properties
- Substantial completion of agricultural projects called for in the North and East TSA Plans

Trails and Facilities

- Completion of trail and trailhead projects called for in the West TSA Plan
- Substantial completion of trail and trailhead projects called for in



the North and East TSA Plans

- Continue to implement the recommendations of the 2016 Facilities Assessment, including deferred maintenance on priority projects
- Implement medium and long term office and work space plans

Board Action

At its June 8, 2016 meeting, the Open Space Board of Trustees unanimously passed a motion approving the 2017 – 2022 OSMP CIP and recommended approval of the same by the Planning Board and City Council.

Guiding Principles and Project Prioritization

CIP Guiding Principles

All proposed projects in the 2017 – 2022 CIP are consistent with the established CIP guiding principles. OSMP staff developed budget guiding principles specific to OSMP services and in support of CIP guiding principles.

Many of the OSMP CIP projects support and are consistent with Council-accepted management plans. All projects will ensure that OSMP helps the City achieve its sustainability goals. While this CIP program is very ambitious, the department still feels that should another emergency occur, department personnel have the ability to respond appropriately and the Open Space fund can support any additional or immediate needs.

An important theme in the 2017–2022 CIP is an increased investment in taking care of existing infrastructure. OSMP recently formalized investments in agricultural, historic, and cultural asset maintenance and management through creation of programs with annual funding in the OSMP CIP. Beginning in 2017, OSMP will create similar investments in ecological system maintenance, facilities maintenance and major trail maintenance. The priorities of these programs will be informed by assessments taking place in 2016 and 2017, including a facilities assessment and a trails condition study. OSMP Campus Relocation will be funded in the CIP for a second year, with annual funds programmed through 2022. This responds to the need to address inadequate space and infrastructure to support OSMP staffing, vehicles, equipment and materials. Projects addressing community desires in the NTSA and investments in new facilities beyond current infrastructure are incorporated into the CIP.



As OSMP increases its investment in stewardship and maintenance programs, it also continues a significant real estate acquisition program that is connected to our regional partnerships. The 2017–2022 CIP represents a shift in the real estate acquisition program, which has been funded at \$5.4M annually for several years. This funding will decrease in 2017 to \$4.5M per year, with additional adjustments in later years to account for a partial sunset of the Open Space sales tax and a potential future bond issue. The land system that new acquisitions will create in accordance with the approved Acquisition Plan will be similar in character as exists today. It will range from natural lands management, striving to balance preservation of valuable and unique ecosystems with access and passive recreation; to agricultural and cultural lands that support livestock and local farming; to open lands providing a defining border and character for the Boulder community.

Financial projections indicate that sufficient funds will be available over the term of this CIP to pay for these projects.

Prioritization

Ongoing assessments of facilities, trail conditions, and space needs will impact the 2017–2022 CIP, as will a departmental shift towards system stewardship and taking care of existing infrastructure. Staff is striving to establish a reasonable and responsive direction in the proposed 2017 – 2022 CIP. As the organization transitions, there is ample opportunity to make adjustments in the out years of the CIP while the OSMP fund remains fiscally sound.

Operation and Maintenance Impacts

As new and rerouted trails are built along with new trailheads, the need for operations and maintenance funds will increase. The impact is slight in the near term and, in fact, may decrease since older infrastructure will be replaced with new. Also, staff has been striving to design and build more sustainable trail systems such that less maintenance is required over time. For example, more sustainable trail design techniques proved to be effective during the September 2013 rain event with those trails requiring substantially less repair work. However, as trails and trailheads age they will need maintenance just as any aging facility does. Maintenance funds will be needed to keep farmsteads and indeed all OSMP infrastructures in acceptable or better condition.

It is anticipated that additional funding will be required for operation and maintenance as the OSMP infrastructure expands. The 2017–2022 CIP addresses these impacts through annual



investment in agricultural, historic, and cultural maintenance and through new CIP programs to support ecological, facilities, and major trail maintenance. Over the 2017–2022 horizon, investment in these programs gradually increases, anticipating the results of facilities and other assessments to understand long-term operation and maintenance impacts. Current projections indicate that existing revenue sources for OSMP will be adequate to provide that needed operation and maintenance funding.

Projects not Previously Identified in the CIP

- Flood repair projects at the Skunk/Mesa Trail Crossing and Amphitheatre Trail bridge over Gregory Canyon Creek
- Boulder and South Boulder Creek confluence area restoration
- Ecological system maintenance and restoration
- Facilities maintenance
- Major trail maintenance
- OSMP Campus Relocation, previously characterized as OSMP Space Needs
- New property stabilization on newly acquired properties

Deferred Eliminated, or Changed Projects

Due to the September 2013 flood, other projects have been deferred, delayed and/or modified. For example, West TSA overall completion is being deferred by a few years. Some flood recovery projects are in the West TSA, repairing trails and infrastructure in place or through re-routing to allow for more resilient infrastructure. To focus on the Confluence Area Restoration project, Goodhue Ditch Fish Passage has been delayed to 2018. In order to allow more time for the public process in Master Plan development, the East TSA Plan has been delayed to 2019. Finally, as OSMP increases its investment in stewardship programs, it has adjusted the annual funding of the real estate acquisition program, beginning with a decrease from \$5.4M to \$4.5M in 2017.

Unfunded Projects and Emerging Needs

No unfunded projects or needs have been identified at this time. However, some may be discovered once OSMP develops its Master Plan and has completed its Asset Management assessment, which will provide a clear vision for OSMP's future.



Mapping

The mapping for CIP projects is now in a GIS-based electronic map [accessed here](#). All the map-able projects proposed for funding in the 2017–2022 are shown. If the icons are clicked, the project name, project number (referenced on the project sheets), department, funding source, and year with initial funding will be shown. For many projects the initial funding is currently showing as 2015 as projects have funding for planning and design before actual construction however, the construction timing may be in the future. Please consult the project sheets in each department section for project descriptions, phasing and funding information. Projects with funding earmarked for citywide or system improvements are not shown on the map. Ongoing refinement of the GIS-based map will result in greater clarity of project information.

Click here to access the Open Space and Mountain Parks Visitor Master Plan (VMP). <https://bouldercolorado.gov/osmp/visitor-master-plan>

Click here to access all master plans for the City of Boulder. <https://bouldercolorado.gov/planning/department-master-plans-and-strategic-plans>



Project Name: Agriculture Facilities Projects

Project at a Glance

Project Type:	CIP-CAPITAL MAINTENANCE		
Department:	OPEN SPACE & MOUNTAIN PARKS	Subcommunity:	SYSTEM-WIDE
Project Number:	555AG15001	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

This item funds smaller capital maintenance projects for the repair, replacement or renovation of existing OSMP agricultural infrastructure. Typically this money is used for replacement or new installation of fences (approx. 8-10 fence projects per year at \$5k-\$10k per project) and agricultural irrigation items such as head gates, division boxes and irrigation ponds (approx. 4-6 irrigation projects per year at \$7k to \$12k). The projects are either identified in the Agricultural Resource Management Plan that is on track to be adopted in early 2016, the current OSMP fence inventory, or as opportunistic projects identified throughout the year.

Project Phasing

Construction Phase for smaller capital maintenance projects. Planning and Design: \$0
 Construction: \$110,000 in 2017, slightly increased costs projected through 2022 (\$120,000 in 2018 and 2019, \$130,000 in 2020, 2021 and 2022).

Public Process

The Agricultural Resource Management Plan will go through a public process and may identify some of the projects to be funded in this category. For the individual sites, the infrastructure is already present and these funds will generally be used to replace the existing infrastructure with facilities of similar design and function. Adjacent property owners will be consulted, as necessary.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

The city's Utilities staff may be involved with some water infrastructure projects as they are often shareholders in the same local ditch companies as OSMP.

Change From Past CIP

None. This program is funded annually in the OSMP CIP.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	152581.13	\$110,000	\$125,000	\$150,000	\$175,000	\$175,000	\$200,000
					Funding to Completion \$0		
						Future Unfunded \$0	

Total Funding Plan: \$1,087,581

Additional Annual Operating and Maintenance

Additional Annual O&M: 0 **Funding Source for O&M:**

Additional Annual O&M Description:

This maintenance work will reduce future O&M costs.



Project Name: Confluence Area Restoration Phase 2

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: OPEN SPACE & MOUNTAIN PARKS
Subcommunity: AREA III
Project Number: 555ES15002
BVCP Area: AREA III
CEAP Required: No
CEAP Status: N/A

Project Description

Project will restore riparian habitat in the Boulder Creek and South Boulder Creek confluence area. The September 2013 flood impacted the creeks through this area by eroding banks and depositing sediment in the channel. The work will entail restoring streambank and streambed structure, creating aquatic habitat and planting riparian trees and shrubs to create a sustainable riparian area.

Project Phasing

Phase 1 permitting and design completed in 2016.
 Construction - \$300k for Phase 2
 2017 funds are additional construction funds added to prior year design and construction funds.

Public Process

This flood recovery project was presented to OSBT and Council after the September 2013 flood. Public input opportunities at OSBT public meeting, press release, and notification via the permitting process.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will be coordinated with the COB utilities and transportation workgroups and the existing city utilities in this area, the CDOT US36 Wetland Mitigation project, the Colorado Water Conservation Board, the Colorado Parks and Wildlife Division, affected landowners.

Change From Past CIP

Added 2017 funding.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	242729.10	\$300,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$542,729

Additional Annual Operating and Maintenance

Additional Annual O&M: 0
Funding Source for O&M:

Additional Annual O&M Description:

Monitoring and weed control during establishment by staff.



Project Name: Cultural Resource/Facility Restorat

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: OPEN SPACE & MOUNTAIN PARKS
Subcommunity: SYSTEM-WIDE
Project Number: 555CR15001
BVCP Area: SYSTEM-WIDE
CEAP Required: No
CEAP Status: N/A

Project Description

Improvement of the condition of historic structures, including but not limited to barns, hosues, sheds, and shelters, as well as planning and development of a cultural preservation assessment and prioritization plan that will inform the priorities for the future.

Project Phasing

Planning - \$30k. The early fundng will cover an assessment and prioritization of the OSMP cultural and historic resources. This effort will inform the future spending in coordination with the department master plan.
 Construction - \$80k. All remaining funds will be used for maintenance activities.

Slightly increased funding is scheduled for out years (\$120k in 2018 and 2019, \$130k in 2020, 2021, and 2022).

Public Process

Updates on work will be provided to the OSBT, as needed. Most work is maintenance to existing structures so public process is not anticipated.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Work will be coordinated with Boulder County Preservation staff and the State Historic Preservation office

Change From Past CIP

None. Program is funded annually in the OSMP CIP.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	48335.92	\$110,000	\$125,000	\$150,000	\$175,000	\$175,000	\$200,000
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$983,336

Additional Annual Operating and Maintenance

Additional Annual O&M: 0
Funding Source for O&M:

Additional Annual O&M Description:

Improvements to facilities will likely reduce O&M needs



Project Name: Ecological System Maintenance/Restr

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: OPEN SPACE & MOUNTAIN PARKS

Subcommunity: SYSTEM-WIDE

Project Number: 555ES17001

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status: N/A

Project Description

As OSMP shifts from acquisition to system stewardship, these ongoing capital dollars will support ecological system maintenance and restoration as directed by the Open Space Master Plan, Trail Study Area Plans, Grassland and Forest Management Plans, and Agricultural Plan.

Project Phasing

Funding will begin in 2017 with \$110k, with slightly increased funding in subsequent years.

2018 and 2019 - \$120k

2020-2022 - \$130k

Public Process

Projects will be priorities of the Open Space Master Plan, Trail Study Area Plans, Grassland and Forest Management Plans, and Agricultural Plan, all of which involved public process.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Adjacent agency property owners.

Change From Past CIP

New project with annual funding in the OSMP CIP.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	0.00	\$110,000	\$125,000	\$150,000	\$175,000	\$175,000	\$200,000
					Funding to Completion \$0		
						Future Unfunded \$0	

Total Funding Plan: \$935,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

Improvements will likely reduce O&M needs



Project Name: ETSA - Plan and Implementation

Project at a Glance

Project Type:	CIP-CAPITAL PLANNING STUDIES		
Department:	OPEN SPACE & MOUNTAIN PARKS	Subcommunity:	AREA III
Project Number:	555ETSA001	BVCP Area:	AREA III
CEAP Required:	No	CEAP Status:	N/A

Project Description

The East Trail Study Area (TSA) encompasses approximately 11,000 acres of OSMP including Sawhill Ponds, the East Boulder Trail, the Bobolink and Teller Farm trailheads. It extends general east of the City of Boulder, southeast of the Diagonal Highway and north of US 36. The East Trail Study Area (TSA) Plan seeks to improve visitor experiences and increase the sustainability of trails and trailheads while conserving the area's natural, cultural and agricultural resources.

Project Phasing

Funding was originally scheduled to begin in 2018. This has been delayed to 2019 to first complete the Open Space Master Plan update.
 Planning - 2019: \$50,000, 2020: 200,000 Followed by implementation in 2021 and beyond.

Public Process

There will be ample opportunity for community input. Staff is currently experimenting with a number of techniques to broaden community participation in the North TSA plan and will also learn from the OSMP master plan effort. The results of these processes will inform staff's approach to public process in the East TSA.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

The East TSA plan includes opportunities to collaborate with other departments around issues such as ecological conservation, fitness and health, climate action, multi-modal linkages, etc. The level of collaboration with other agency partners will be carried out as appropriate to the identified issues.

Change From Past CIP

Shifted start date to 2019 to focus on Open Space Master Plan.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	0.00	\$0	\$0	\$50,000	\$200,000	\$300,000	\$400,000
					Funding to Completion \$0		Future Unfunded \$0

Total Funding Plan: \$950,000

Additional Annual Operating and Maintenance

Additional Annual O&M: TBD **Funding Source for O&M:**

Additional Annual O&M Description:

Monitor, maintain, rehabilitate trails when needed.



Project Name: Facilities Maintenance

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: OPEN SPACE & MOUNTAIN PARKS

Subcommunity: SYSTEM-WIDE

Project Number: 555FA17001

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status: N/A

Project Description

In 2016, OSMP will conduct a facilities assessment with Case Forensics 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 will be delivered to OSMP in a database to which additional structures and their data can be added and from which reports can be generated.

Project Phasing

Funding will begin in 2017 at \$200K with slightly increased funding in future years.

- 2018 - \$200k
- 2019 - \$225k
- 2020 - \$225k
- 2021 - \$250k
- 2022 - \$250k

Public Process

Public process is not anticipated, as Facilities projects will involve maintenance to existing structures. Project priorities will be identified through the 2016 facilities assessment.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Change From Past CIP

New project with annual funding in the OSMP CIP.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	175000.00	\$200,000	\$250,000	\$300,000	\$300,000	\$325,000	\$325,000
					Funding to Completion \$0		
						Future Unfunded \$0	

Total Funding Plan: \$1,875,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

This will reduce future O&M costs.



Project Name: Farm Site Improvements

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	OPEN SPACE & MOUNTAIN PARKS	Subcommunity:	SYSTEM-WIDE
Project Number:	555AG16001	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

This funding is for deferred maintenance to existing agricultural buildings and infrastructure. It is mainly for out-buildings and structures that are used for hay and equipment storage, livestock shelters and grain storage. The funding could also be used for maintenance on farm homes that exist on OSMP properties that are used to support agricultural production. The improvements may be identified in the Agricultural Resource Management Plan that is expected to be approved in 2016 or through other methods such as prioritization of the soon-to-be-completed facilities condition assessment. The necessary work and funding level may be revised in future years as the needs and the work planning is completed.

Project Phasing

Construction Phase for maintenance to existing OSMP infrastructure. Planning and Design: \$0
 Construction: \$60,000 in 2017 (same through 2022)

Public Process

The projects are maintenance to existing structures on OSMP properties so no process is anticipated.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Project funds used in accordance with the OSMP Agricultural Plan and the Open Space Master Plan. Most of this maintenance work is on OSMP property and, if needed, will be coordinated with the adjacent property owners and the cultural resources staff in OSMP.

Change From Past CIP

None. This program is funded annually in the OSMP CIP.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	60000.00	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$420,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

The maintenance will lessen O&M requirements.



Project Name: Flood Eng. Trails

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: OPEN SPACE & MOUNTAIN PARKS

Subcommunity: AREA III

Project Number: 555BOULD33

BVCP Area: AREA III

CEAP Required: No

CEAP Status: N/A

Project Description

This CIP project titled Flood Engineered Trails is a group of repairs that are intended to correspond with the related FEMA project, or worksheet, for OSMP trail reconstruction when the trail is replaced at least partially outside of the existing trail alignment.

Locations included in this project include the Lower Big Bluestem Trail repair, the South Mesa Trail repair and smaller trails that will be partially reconstructed outside of their current alignment.

In 2017, funding will be added to support the Skunk/Mesa Trail Crossing and Restoration project, initially outside of the FEMA scope of work but now potentially eligible for reimbursement.

Project Phasing

2017 - Skunk/Mesa trail crossing and restoration project \$150,000.

Public Process

The OSMP flood recovery plan has been presented to OSBT and Council, with periodic updates on flood recovery projects.

Regarding all projects within Flood Engineered Trails, staff will provide updates to the Open Space Board and will hold public hearings for these discussions, if the trail realignments are significant.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

All work will be coordinated with OSMP Ecologists and Cultural Resources Staff. In addition OSMP will coordinate with city's central flood recovery group.

Change From Past CIP

Added 2017 funding for Skunk/Mesa project.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Lottery	360363.86	\$0	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0
Open Space	1007342.26	\$150,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$1,517,706

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

Trail reconstruction will reduce O&M cost



Project Name: Flood Trails

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: OPEN SPACE & MOUNTAIN PARKS

Subcommunity: AREA III

Project Number: 555BOULD24

BVCP Area: AREA III

CEAP Required: No

CEAP Status: N/A

Project Description

This project is a grouping of flood recovery locations intended to correspond with the related FEMA project (worksheet) for OSMP trail reconstruction when trails are replaced in the previously existing trail alignment. Specific projects to be continued or started in 2017 include: Chautauqua trail repairs, Shanahan trail repairs, and other smaller trail repairs. In 2017, funding will be added to support the Amphitheatre Bridge project, initially outside of the FEMA scope of work but now potentially eligible for reimbursement.

Project Phasing

2017 - Amphitheatre Bridge project \$305,000.

Public Process

The OSMP flood recovery plan has been presented to OSBT and Council, with periodic updates on flood recovery projects. For those projects within Flood Trails, no public process is planned as the trail repair is occurring in the current location. Trail users will be notified through public outreach methods including press releases and the website.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Work will be coordinated with OSMP Ecologists and Cultural and Historical Staff along with City and County Planning staff. In addition OSMP will coordinate with city's central flood recovery group.

Change From Past CIP

Added 2017 funding for Amphitheatre Bridge project.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	2472935.39	\$305,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$2,777,935

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

Trail reconstruction will reduce O&M cost from flood damage.



Project Name: Goodhue Ditch Fish Passage

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	OPEN SPACE & MOUNTAIN PARKS	Subcommunity:	AREA III
Project Number:	555ES16001	BVCP Area:	AREA III
CEAP Required:	No	CEAP Status:	N/A

Project Description

Design and construct a fish passage structure on the Goodhue Ditch Diversion on South Boulder Creek to allow for the passage of native and sport fish and to connect upstream and downstream aquatic habitat.

Originally programmed in the 2017 CIP, this project has been delayed to 2018 to complete time sensitive flood recovery efforts related to Boulder and South Boulder Creek confluence area restoration.

Project Phasing

- Project delayed until 2018. 2018 funds:
1. Design \$25,000
 2. Permitting \$20,000
 3. Construction \$255,000

Public Process

Originally included in the 2015 CIP which was presented to OSBT and Council, this project was delayed for one year to focus on flood recovery projects. Public input opportunities at OSBT public meeting, press release, and notification via the permitting process.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Collaborate with the ditch company and shareholders, Colorado Parks and Wildlife, local conservation groups and the affected public.

Change From Past CIP

Project shifted from 2017 to 2018 to complete flood recovery projects

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	0.00	\$0	\$300,000	\$0	\$0	\$0	\$0
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$300,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 0 **Funding Source for O&M:**

Additional Annual O&M Description:

This new structure will require no O&M for many years.



Project Name: Major Trail Maintenance

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: OPEN SPACE & MOUNTAIN PARKS
Subcommunity: SYSTEM-WIDE
Project Number: 555OSTP001
BVCP Area: SYSTEM-WIDE
CEAP Required: No
CEAP Status: N/A

Project Description

In 2016 OSMP initiated a trails capacity study, the results of which will shape major trail maintenance investment in the coming years. This CIP project is part of an increased department-wide investment in land and system stewardship. Spending will be guided by the Open Space Master Plan and Trail Study Area Plans.

Project Phasing

Funding will begin in 2017 at \$110k with slightly increased funding in subsequent years.

2018 and 2019 - \$120k
 2020-2022 - \$130k

Public Process

Public process is not anticipated, as projects will involve maintenance of existing trails. These projects will be noticed on our web page.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Work will be coordinated with OSMP Ecologists and Cultural and Historical Staff.

Change From Past CIP

New project with annual funding in the OSMP CIP.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	-253990.01	\$110,000	\$125,000	\$150,000	\$175,000	\$175,000	\$200,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$681,010

Additional Annual Operating and Maintenance

Additional Annual O&M: 0
Funding Source for O&M:

Additional Annual O&M Description:

Improvements will likely reduce O&M needs



Project Name: Mineral Rights Acquisition

Project at a Glance

Project Type: CIP-LAND ACQUISITION

Department: OPEN SPACE & MOUNTAIN PARKS

Subcommunity: SYSTEM-WIDE

Project Number: 555MRA001

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status: N/A

Project Description

This on-going 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. The definition of a CIP project includes "the purchase of the physical assets of the community." By purchasing the rights to the mineral, the city is purchasing a physical asset. Funds also provide for research, mapping and analyzing potential acquisitions. This project is for ongoing funding program. 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.

Project Phasing

Funding is for mineral acquisitions and associated costs only.

Public Process

Public process is not anticipated for this project.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Collaboration with other departments and agencies are generally not required for the acquisition of mineral rights.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	611219.85	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,211,220

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

Included in annual appropriation for operations



Project Name: New Property Stabilization

Project at a Glance

Project Type: CIP-LAND ACQUISITION
Department: OPEN SPACE & MOUNTAIN PARKS
Subcommunity: SYSTEM-WIDE
Project Number: 555RE15001
BVCP Area: SYSTEM-WIDE
CEAP Required: No
CEAP Status: N/A

Project Description

Funds for new property stabilization/immediate improvements on OSMP Real Estate Acquisitions. Previously, the amount of funding allocated to this project was by property as indicated in the Closing Memo at the time of acquisition. This has resulted in insufficient funding to bring new properties to OSMP standards, including breakdown and/or restoration of structures, fencing, etc. Beginning in 2017, there will be a set amount per year dedicated to this purpose.

Project Phasing

2017-2022 - \$200k per year

Public Process

Each property acquisition is presented to the OSBT and City Council for approval. New Property Stabilization dollars are identified in the property closing memo and include costs to bring the property into the OSMP system.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Change From Past CIP

New project with annual funding in the OSMP CIP.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	159150.00	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,359,150

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

Improvements will likely reduce O&M needs



Project Name: NTSA Implementation

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: OPEN SPACE & MOUNTAIN PARKS
Subcommunity: AREA III
Project Number: 555NTSA001
BVCP Area: AREA III
CEAP Required: No
CEAP Status: N/A

Project Description

The NTSA encompasses approximately 7,700 acres and includes the North Foothills area north of Lee Hill Road and the Boulder Valley Ranch area extending east to SH 119/Diagonal Highway. The Plan delineates some new trails, major maintenance for some designated trails, and closure and reclamation of the other undesignated trails. Also detailed in the plan are conservation projects, trailhead improvements and upgraded and/or additional regulatory, way-finding and interpretive signs. The Plan was adopted by Council in July 2016 with implementation beginning in 2016 and taking up to ten years to complete.

Project Phasing

2017 implementation will include trailhead projects such as Degge and Daggel and design and initial implementation of conservation projects.

Estimated total implementation costs are divided across a 6-year implementation horizon.

Public Process

All projects called out in the NTSA Plan went through the lengthy public involvement process of plan development. Once detailed plans are developed for some of the larger projects, such as the North Sky Trail, additional outreach to the community will be needed. These project plans will also be vetted by the Open Space Board of Trustees.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Coordination with the city Parks and Recreation Department for the Boulder Reservoir Master Plan, with Boulder County Parks and Open Space on neighboring properties and with CDOT on properties adjacent to their facilities, including US36.

Change From Past CIP

Funding added in out years based on plan costing.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	154932.54	\$400,000	\$500,000	\$500,000	\$400,000	\$400,000	\$300,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$2,654,933

Additional Annual Operating and Maintenance

Additional Annual O&M: TBD
Funding Source for O&M:

Additional Annual O&M Description:

Monitor, maintain, rehabilitate trails when needed



Project Name: OSMP Campus Relocation

Project at a Glance

Project Type: CIP-LAND ACQUISITION
Department: OPEN SPACE & MOUNTAIN PARKS
Subcommunity: SYSTEM-WIDE
Project Number: 555FA16001
BVCP Area: AREA III
CEAP Required: No
CEAP Status: N/A

Project Description

Currently, OSMP has roughly 13,000 square feet of office space. In 2015, OSMP completed Phase 1 of its space analysis, which identified short-, medium-, and long-term departmental space needs. This analysis found that the department needs approximately 35,000 square feet of space. In 2016, Phase 2 will evaluate space alternatives including utilization of the current space (spread across various locations either as it exists or reconfigured), or if there is a need to pursue a new OSMP campus. The analysis will identify preferred alternatives that may require remodeling existing spaces and/or reconstruction of some facilities, and/or evaluating new space on currently owned or potentially acquired property.

Project Phasing

2017 funding will likely cover the short term alternatives identified in the space needs analysis. In 2017, further analysis will be completed by internal teams around potential future sites for an OSMP campus. The medium to long term solutions will be identified and funded in out years of the CIP. Funding amounts will be modified in out years, if needed.

Public Process

Public process is not anticipated at this time. In 2016, OSMP will form an internal team to identify space needs and options for a campus relocation.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This effort will be coordinated with FAM so they can serve as a technical resource to help direct and review any proposals and cost estimates. Furthermore, coordination with FAM allows for potential collaboration on current and future citywide solutions.

Change From Past CIP

Increased annual funding in the OSMP CIP.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	200000.00	\$1,400,000	\$1,400,000	\$1,000,000	\$200,000	\$200,000	\$200,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$4,600,000

Additional Annual Operating and Maintenance

Additional Annual O&M: TBD
Funding Source for O&M:

Additional Annual O&M Description:

Any additional O&M can't be quantified until the plan is developed.



Project Name: OSMP Innovations

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: OPEN SPACE & MOUNTAIN PARKS

Subcommunity: AREA III

Project Number: 555CO16001

BVCP Area: AREA III

CEAP Required: No

CEAP Status: N/A

Project Description

Explore and encourage the use of innovations on OSMP property, to evaluate different approaches to design and management of the OSMP system. For example, an initial biomimicry innovation project could utilize biological concepts to rethink road and trail design.

The use of innovations will be explored further starting in 2016 and continuing with the first year of funding in 2017.

Project Phasing

Funding will be defined in late 2016 and early 2017 to determine next steps likely starting with design and followed by construction in 2018 and beyond.

Public Process

These projects will be noticed on the OSMP web site. OSBT will be informed of these projects and asked for guidance as to appropriateness.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Interdepartmental and Interagency Collaboration will be defined in 2016 and into early 2017 depending on the type and extent of the innovation projects. Specifically for biomimicry, the EPA consultant will continue to provide guidance throughout the process, as available.

Change From Past CIP

None. This program is funded annually in the OSMP CIP.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	0.00	\$75,000	\$175,000	\$100,000	\$100,000	\$100,000	\$100,000
					Funding to Completion \$0		
						Future Unfunded \$0	

Total Funding Plan: \$650,000

Additional Annual Operating and Maintenance

Additional Annual O&M: TBD

Funding Source for O&M:

Additional Annual O&M Description:

We have no history but should reduce future maintenance costs.



Project Name: OSMP Master Plan Update

Project at a Glance

Project Type: CIP-CAPITAL PLANNING STUDIES
Department: OPEN SPACE & MOUNTAIN PARKS
Subcommunity: SYSTEM-WIDE
Project Number: 555OSMP001
BVCP Area: SYSTEM-WIDE
CEAP Required: No
CEAP Status: N/A

Project Description

At the 2016 retreat, City Council requested that staff provide a public process breather for the community and focus on an update to the Visitor Master Plan. The department will recast this plan as the Open Space Master Plan, which will address a set of previously identified overarching issues such as carrying capacity, night-time and temporal use and climate change mitigation and adaptation. The plan will also establish a set of policies and priorities and to align the department with shared goals, measureable objectives and metrics to implement the Open Space sections of the City Charter. An OSMP Master Plan will improve integration of departmental work group efforts and be clearly linked to the Boulder Valley Comprehensive Plan. The process is anticipated to take between 18 and 24 months to complete.

Project Phasing

2016 - Data gathering and inventory - \$252k
 2017 - Planning begins in first half of year - \$300k

Implementation - 2018 - 2022 - the amount to be refined or reallocated based on the outcome of the plan.

Public Process

There will be ample opportunity to community input. Staff is currently experimenting with a number of techniques to broaden community participation in the North TSA plan. The results of that effort will inform staff's approach to public process in for the OSMP master plan.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

The OSMP Master plan will link with the Boulder Valley Comprehensive Plan. This will provide a nexus for interdepartmental collaboration around issues such as ecological conservation, fitness and health, climate action, multi-modal linkages, etc. The level of collaboration with Boulder County, Colorado Parks and Wildlife, and other agency partners will be commensurate with their interest and the benefit to the community.

Change From Past CIP

Funding adjusted in out years based on revised costing.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	252000.00	\$300,000	\$100,000	\$100,000	\$0	\$0	\$0
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$752,000

Additional Annual Operating and Maintenance

Additional Annual O&M: TBD **Funding Source for O&M:**

Additional Annual O&M Description:

Cannot be determined until Plan is developed and approved by Council.



Project Name: OSMP Real Estate Acquisition

Project at a Glance

Project Type: CIP-LAND ACQUISITION

Department: OPEN SPACE & MOUNTAIN PARKS

Subcommunity: SYSTEM-WIDE

Project Number: 555REA001

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status: N/A

Project Description

This project is the acquisition of additional acres of open space, subject to available funding within the Open Space and Mountain Parks acquisition plan area as approved by OSBT and the City Council.

The amount of this CIP project will decrease in 2017 as funds from this project are shifted to the OSMP Campus Relocation and New Property Stabilization projects.

Project Phasing

All of this funding is for property acquisition. Beginning in 2017, associated costs including immediate deferred maintenance needs will be funded separately, in the New Property Stabilization project. In 2020, this project will be reduced from \$4.5M annually to \$2M to account for the sunset of part of the Open Space sales tax revenue.

Public Process

Each property acquisition must be approved by OSBT and Council.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Coordinate with internal OSMP staff including ecologists, cultural and historic, integrated pest management, agricultural management and water resources. Typically other department or outside agency coordination is not required.

Change From Past CIP

Reduced over time to reflect shift to stewardship.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	14137659.93	\$4,500,000	\$4,500,000	\$4,500,000	\$4,000,000	\$3,750,000	\$3,500,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$38,887,660

Additional Annual Operating and Maintenance

Additional Annual O&M: Minimal

Funding Source for O&M:

Additional Annual O&M Description:

Incremental maintenance costs for new properties



Project Name: S.Bldr Crk at E.Bldr Ditch Const

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: OPEN SPACE & MOUNTAIN PARKS
Subcommunity: EAST BOULDER
Project Number: 555ES16003
BVCP Area: AREA III
CEAP Required: No
CEAP Status: N/A

Project Description

Improve existing ditch infrastructure to minimize impacts to OSMP land from ditch maintenance activities while ensuring delivery of water rights. Improvements will also allow fish passage at the existing diversion.

Project Phasing

1. Design \$50,000
2. Permitting \$60,000
3. Construction \$190,000

Public Process

This flood recovery project was presented to OSBT and Council after the September 2013 flood. Public input opportunities at OSBT public meeting, press release, and notification via the permitting process.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Collaborate with Ditch Company and shareholders, Colorado Parks and Wildlife, local conservation groups and the affected public.

Change From Past CIP

One-time funding to complete flood recovery project.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	0.00	\$300,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$300,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 0 **Funding Source for O&M:**

Additional Annual O&M Description:
 O&M costs for ditch maintenance are reduced by this project.



Project Name: Visitor Infrastructure Amenities

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: OPEN SPACE & MOUNTAIN PARKS

Subcommunity: SYSTEM-WIDE

Project Number: 555VISW001

BVCP Area: AREA III

CEAP Required: No

CEAP Status: N/A

Project Description

In the past, this program provided funding on a system-wide basis for planning capital maintenance and new construction on existing trails and trailheads, other facilities that improved the visitor experience (e.g. safe roads crossings) and capital restoration of areas where visitor impacts are high. In 2017, the project will be updated to support amenities, for example bike racks, trash and recycle cans, and visitor center improvements. Projects will be identified by staff, public concerns and through the various trail study area plans or opportunistically as needs arise throughout the year.

Project Phasing

2017-2022 Construction- \$200k/year

Public Process

OSBT, Council and the public will have input as the various OSMP plans are developed. In addition, these projects will be noticed on the OSMP web site.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Work will be coordinated with OSMP Ecologists and Cultural and Historical Staff. Where appropriate OSMP will coordinate with City of Boulder Parks and Recreation, City Planning, Boulder County staff and CDOT staff, depending on the project and its location.

Change From Past CIP

Funding added in out years to make this an annual OSMP CIP project.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	100000.00	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,300,000

Additional Annual Operating and Maintenance

Additional Annual O&M: Minimal

Funding Source for O&M:

Additional Annual O&M Description:

Monitor, Maintain, rehabilitate trails when needed.



Project Name: Water Rights Acquisition

Project at a Glance

Project Type: CIP-LAND ACQUISITION
Department: OPEN SPACE & MOUNTAIN PARKS
Subcommunity: SYSTEM-WIDE
Project Number: 555WRA001
BVCP Area: SYSTEM-WIDE
CEAP Required: No
CEAP Status: N/A

Project Description

This on-going 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. Program funding includes water acquisitions in the Coal Creek, South Boulder, Boulder and Lefthand Creek watersheds. Funding will also be used for professional fees, legal and engineering fees, analysis and mapping necessary to manage and protect the water rights portfolio. Because of continuing wildlife and habitat concerns, the Open Space and Mountain Parks Resource Operations staff will continue to work with other city departments to assist in enhancing in-stream flow where possible. Senior water rights can exceed \$100,000 per share. Additionally, the department has annual expenditures for the attorney fees and engineering fees that are required, as noted in this project's description, to defend the departments water rights portfolio. This project is for an ongoing funding program. 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.

Project Phasing

All funds are for water rights acquisition and associated costs.

Public Process

Public process is not anticipated for this project.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Coordinate with internal OSMP staff including ecologists, cultural and historic, integrated pest management, agricultural management and water resources. Typically other department or outside agency coordination is not required.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	255817.23	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,455,817

Additional Annual Operating and Maintenance

Additional Annual O&M: Minimal
Funding Source for O&M:

Additional Annual O&M Description:

Included in annual appropriations for operations



Project Name: WTSA Implementation

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: OPEN SPACE & MOUNTAIN PARKS

Subcommunity: AREA III

Project Number: 555WTSA001

BVCP Area: AREA III

CEAP Required: No

CEAP Status: N/A

Project Description

This funding is for implementation of trail projects that were identified in the West Trail Study Areas. The funds will allow for implementation of the following projects: Chautauqua Phase II (Ski Jump reroute, Chautauqua Trail repair, 6th street connector designation and repair), Flagstaff Trail reroute (as it drops down into Gregory Canyon Trailhead/Road), Royal Arch repairs, Long Canyon Reroute, Completion of Lion's Lair (Wittemyer), partial implementation of trail projects on NIST, the Dakota Ridge connector trails (in conjunction with the work occurring at Sanitas).

Project Phasing

In 2017, WTSA funds will support Chapman Drive TH Infrastructure, Amphitheatre, Baseline Trail to Sidewalk Connections, 3rd Flatiron Descent, Lower Flagstaff, and Ski Jump.

Future years- Construction (\$400k in 2018, \$150k/year 2019-2021, \$100k in 2022).

Public Process

Implementation projects are identified priorities of the West Trail Study Area Plan, which went through a lengthy public involvement process. However, the Flagstaff Trail Reroute and next steps of the NIST project may require additional public process including outreach to interested community members and OSBT.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Depending on which alternative is pursued for the Flagstaff Trail project, additional collaboration with City Transportation may be needed.

Change From Past CIP

Funding adjusted in out years based on implementation status.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Open Space	69529.99	\$400,000	\$400,000	\$150,000	\$150,000	\$150,000	\$100,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,419,530

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

Trail repairs will reduce on-going O&M.

Monitor, maintain, and rehabilitate trails as needed.

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Overview of Department Mission

In 2014 the City Council adopted the Boulder Parks and 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 & wellness; taking care of what we have; financial sustainability; building community; youth engagement; and organizational readiness.

In 2016 the department is focusing on community engagement through the Year of the Neighbor with expanded neighborhood and family services and development of close to home park improvements. 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 2016 the department will complete implementation of the Asset Management Program and begin work with expanded partnership development with both agencies like BVSD and non-profits such as the PLAY Foundation to secure capital funding for enhancements and new facilities.

Funding Overview

.25 Cent Sales Tax Fund

With the renewal of this tax in November 2012, the revenues from this funding source were pledged “to fund Parks and Recreational services, development, renovation and refurbishment, and parkland acquisition for passive and active recreational uses” (.25 Cent Sales Tax ballot language).

Permanent Parks and Recreation Fund

The Permanent Parks and Recreation Fund consists of a .9 mill levy of assessed valuation of all taxable property in the city, gifts and donations to the fund, and proceeds from the sale of park or recreation property or equipment. 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

The Lottery Fund is based on proceeds from the Conservation Trust Fund that is distributed by the State of Colorado on a per capita basis to entities. Funding can be used for the acquisition, development and maintenance of new conservation sites and capital improvements for recreational purpose.

Capital Development Fund

The capital development fund accounts for citywide development impact fee collections allocated to growth-related parks and recreation facility 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 the Boulder Junction Area that will be reinvested into key public improvements in this area.

Capital Improvement Bond Fund

Additionally, funding from the Capital Improvement Bond (CIB) Fund supports a number of projects managed by FAM. CIB funding is indicated by the following symbol: 

Current Focus for Capital Planning Projects in 2017

The department will continue to focus on the key themes identified in the department master plan including:

- Community Health and Wellness – facilities are being improved with upgrades to the Scott Carpenter Aquatics Facility and expansion of outdoor fitness and athletic facilities as the results of recent plans and studies.
- Taking Care of Existing Facilities – through implementation of the Asset Management Software and increase in funding for playgrounds, turf and irrigation, court resurfacing and park structures to extend the useful life of critical facilities and increase the condition of many assets.
- Building Community Relationships – through improvements to the Civic Area, many opportunities exist to enhance the gathering spaces and activation areas to invite all members of the community to enjoy this unique public space in downtown Boulder.



- Youth Activity and Engagement – many youth sports facilities and play areas will be enhanced and renovated through the 2017 CIP projects that will continue to allow the department to focus on youth and provide opportunities for children in the community.



Crestview Park.

Project Highlights

Projects Expected to be Completed in 2016

-  Holiday Park Shade structure will be installed as part of the final bond project funds for the department. This project was on hold as bond funding was reallocated to flood recovery for the past two years and is now able to continue the final project associated with bond funding.
- Aquatics Facility Upgrades: Renovations and enhancements for indoor aquatics facilities will start in 2016 with North Boulder Recreation Center pool repairs and enhancements that were identified as part of the Aquatics Study completed in 2014. These projects will be funded from both parks and recreation CIP as well as Facilities and Asset Management.
- Recreation Facility Plan: This study identified the current condition and 10-year O&M and capital repairs needed to maintain recreation centers and the Boulder Reservoir at desired standards. This study will inform future capital investments and identify funding to address deficiencies in the Boulder Reservoir buildings.
- Historic Railroad Coach Restoration: Renovation of the city-owned railroad coach currently located at the Railroad Museum in Golden, CO. The coach has antique wood siding that is in critical need of repair to maintain the coach at an acceptable standard as indicated in a recent grant from the State Historical Fund.
- Coot Lake Restoration: Stabilization and restoration of the north bank of Coot Lake that currently poses a critical safety issue and continued degradation of the resource values of the lake. The project will include trail restoration, bank stabilization and vegetative restoration of this important and highly used natural area within the city's system
- Emerald Ash Borer Response Measures: As a result of the recent discovery of the Emerald Ash Borer (EAB), a response plan is currently in development 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 would provide annual funding to hire contractors for removal and replacement of the trees affected by the EAB to re-establish streetscapes and park areas.



- Urban Forest Strategic Plan: Comprehensive plan to provide specific management direction through policies that will balance the long-term sustainability of the urban forest
- Demolition of the Flatirons Event Center from 2013 flood damage and due to obsolete building systems and the addition of portable restrooms until partnership funding for future development can be identified.
- Neighborhood park improvements will include renovations at Burke Park and Christensen Park.
- Completion of flood damaged projects with the reconstruction of the Knollwood Tennis Courts.

Priority Projects for 2017

- Boulder Reservoir Bathhouse and Administration Building will be renovated or replaced based on design assessment and outdoor amenities including shade shelters, picnic pavilions, beach area, ADA, boat storage and parking improvements.
- Scott Carpenter Aquatics Center was identified in the Aquatics Study as past the acceptable life cycle and that a replacement facility should be provided along with upgrades will be designed to replace this aging 6-lane facility with a modern 10-lane outdoor 50-meter pool and bathhouse.
- Neighborhood park improvements will include renovations to Arapahoe Ridge, Howard Heuston and Tantra Parks as identified through the asset management system.
- Civic Area Park Improvements are being coordinated with the park planning group as well as other city departments to upgrade and expand civic use of the park and surrounding buildings.

Highlights of 2018–2022 Projects

- Athletic Field Improvements: The upgrade of existing natural grass fields and the conversion of select fields to artificial turf will increase the capacity of field use within the community by extending the season of use of the fields and allow more programmed uses resulting in improved benefits from field rentals and tournament play. The department has recently conducted feasibility studies and intends to design and construct priority field improvements at locations determined through the athletic field study.
- Aquatics Upgrades: Renovations and enhancements for indoor aquatics facilities will continue with East Boulder Recreation Center pool repairs and enhancements planned for 2018 and South Boulder Recreation Center or Spruce Pool for 2020.
- Recreation Center Upgrades: Based on the recommendations of the Recreation Facility Strategic Plan major repairs and upgrades to existing facilities will be undertaken at North,



East and South Boulder Recreation Centers in partnership with FAM. These projects will address major backlog of repairs as well as upgrades necessary to maintain the facilities at the desired high standard of the community.

- Improvements to Tom Watson Park including playground, parking lot, shelter and athletic field upgrades.

Board Action

The Parks and Recreation Board (PRAB) unanimously approved the following two resolutions in support of the BPRD 2017–2022 CIP at the March 28, 2016 meeting: a motion to approve the 2017 recommended expenditures from the Permanent Parks and Recreation Fund and a motion to approve the recommended 2017 – 2022 Parks and Recreation Department Capital Improvement Program (CIP).

Guiding Principles and Project Prioritization

CIP Guiding Principles

The proposed projects identified in the 2017–2022 CIP are consistent with the CIP Guiding Principles and the current Parks and Recreation Master Plan. In addition, the following guiding principles are applied when identifying and evaluating priority capital improvement projects:

- **Safety/Compliance (S):** Projects represent important deficiencies or safety and compliance concerns. Project may focus on annual infrastructure repair and replacement and/or refurbishment of park play equipment and amenities, irrigation systems, landscape and turf upgrades and facility improvements
- **Commitment (C):** Projects that are required by law or a ballot initiative, or are in-process of development as part of a prior development agreement and/or are required to be completed within a specific period of time
- **Efficiencies (E):** The department will consistently seek efficiency improvements in both operational and capital investments. Projects will represent important operational and/or maintenance efficiencies resulting in improved life cycles, cost efficiencies and savings in resources, energy or water usage (e.g., Flatirons Golf Course Irrigation System Replacement, Computerized Irrigation System)
- **Revenue (R):** The department will invest in facilities and programs that generate revenues to support valued recreational opportunities in the Boulder community. Projects will enhance the department's ability to earn revenue beyond initial investment and operational costs and may include possible collaboration/ partnership opportunities leveraging outside funding sources.



Prioritization

A principle objective of the current Parks and Recreation Master Plan Update focuses on maintaining existing parks and recreation facilities by “taking care of what we have.” As a result, the department has prioritized CIP projects based on meeting essential safety and compliance considerations, as well as maintaining existing facilities through ongoing annual repair and refurbishment programs and life-cycle replacement programs of park playground equipment and irrigation infrastructure systems.

In most cases, projects identified in the 2017–2022 CIP are intended to improve ongoing maintenance needs by reducing the backlog of deferred maintenance projects that have increased maintenance over time. Projects such as Aquatics Facility Maintenance and the Recreation Facility Strategic Plan strive to improve long-term operational needs and protect existing assets while reducing annual operation and maintenance costs.

A second important objective is to improve efficiencies in operational and capital investments resulting in extending life cycles of equipment and facilities whenever possible. The proposed CIP projects contribute to improving citywide energy efficiency and water conservation efforts addressing existing parks and recreational facilities. Projects are also consistent with the community’s overall greenhouse gas (GHG) and carbon footprint reduction objectives. Projects such as the Recreation Facility Strategic Plan will address department-wide efficiencies aimed at improving operational practices and seeking alternative funding opportunities needed to support the department’s mission.

The department has also initiated Asset Management Best Practices through the use of Facility Condition Index (FCI) and an Asset Priority Index (API) to refine prioritization of projects. These include the following additional criteria that are reviewed by the department prior to project funding:

- Economic Impact to the Community – This criterion asks you to think about how the asset contributes economically to the community. Does it increase property values or provide for an activity that will generate income for businesses.
- Substitutability – This measure considers the uniqueness of the asset or the impact if the asset were lost, destroyed, or disposed of.
- Resource preservation – Asset plays a direct role in an agency’s natural and/or cultural resource management programs or improves the ecological functions for the surrounding community



- Use – Asset facilitates the highest level of affordability, accessibility, and ease of use by all demographic segments of the community.
- Community Benefit – Asset supports community and social values of the department.

Projects Not in Master Plan

None

Operation 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, the majority of 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 the department fulfills commitments relative to long-term planning needs such as the Boulder Junction Pocket Park and Violet Neighborhood Park in the future, the department will need to further prioritize and explore funding opportunities to maintain these new facilities.

Projects not Previously Identified in the CIP

- Scott Carpenter Aquatics Center Enhancements: This aging facility was determined as a high priority by PRAB as well as the community. Improvements were identified in the Aquatics Facility Report with recommendations to replace the 60-year old facility rather than continue with repairs.
- Trail around Boulder Reservoir: Construction of a bike/pedestrian trail along 51st Street to address growing outdoor recreation demand on the area and improve safety. This project will be coordinated with Open Space and Mountain Parks, Transportation and Boulder County.

Deferred, Eliminated, or Changed Projects

Due to the September flood of 2013, the department had to focus on some of the critical damages to parks and recreation infrastructure. Overall the department sustained about \$2million in damages to infrastructure some of the costs of which are eligible for FEMA reimbursement. Some of the regularly scheduled infrastructure renovations had to be delayed due to this unexpected increase in work load and funding needs. However, as funds are reimbursed by FEMA, the department will have the opportunity to return to the normal prioritization of infrastructure renovations as scheduled through the department's asset management program and typically funded through the CIP. Projects that were deferred include:



- Various site amenity funding accounts have been consolidated under Neighborhood & Community Park Improvements based on asset management tracking. This combined funding for shelters, ADA, playgrounds, irrigation, courts and parking lots into one funding source. Assets will be tracked using new Asset Management Software that identifies existing condition of assets and compares to life cycle estimates to determine optimal time for reinvestment.

Unfunded Projects and Emerging Needs

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 recently completed 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.

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 for the future. With maintenance backlog estimated at over \$27 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 indications of a modest economic turnaround and the passage of 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.

To mitigate the impacts of limited funding, staff is:

- Working collaboratively with Facilities and 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
- Reevaluating work plans and investing in projects that mitigate ongoing maintenance and operational expenses
- Redirecting funding or accelerating projects to achieve energy efficiencies at recreation facilities
- Developing a long-term capital investment strategy to identify partnerships and non-traditional funding sources to support desired new facilities and enhancements to existing facilities.

The department has unfunded significant deficiency and high priority projects included in the current capital investment strategy program.

Key unfunded projects include:

- The recently completed 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. With the focus on the Boulder Reservoir and Scott Carpenter Pool funding to adequately address the recreation centers was deferred.
- Increased capacity and additional facilities for youth and adult sports.
- 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 using future DET funds for growth
- Infrastructure associated with Valmont City Park Phase 2 development including athletic fields and infrastructure investments, and space needs for a potential Park Maintenance Operations relocation.

Table 14-1: 2017-2022 Funding Summary By Department

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PARKS & RECREATION	Department Total	\$ 39,564,000	\$ 5,420,000	\$ 10,144,000	\$ 9,250,000	\$ 5,500,000	\$ 4,250,000	\$ 5,000,000
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 24,200,000	\$ 3,250,000	\$ 7,700,000	\$ 4,250,000	\$ 2,750,000	\$ 3,250,000	\$ 3,000,000
	Aquatic Facility Enhancements	\$ 2,500,000	\$ -	\$ -	\$ 2,000,000	\$ -	\$ 500,000	\$ -
	Athletic Field Development	\$ 2,950,000	\$ 500,000	\$ 200,000	\$ 250,000	\$ 250,000	\$ 750,000	\$ 1,000,000
	Boulder Reservoir 51st Street Path	\$ 1,000,000	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -
	General Park Improvements	\$ 8,000,000	\$ 1,500,000	\$ 500,000	\$ 1,000,000	\$ 1,000,000	\$ 2,000,000	\$ 2,000,000
	Lighting Ordinance Implementation	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Scott Carpenter Aqua Enhancements	\$ 8,000,000	\$ 1,000,000	\$ 7,000,000	\$ -	\$ -	\$ -	\$ -
	Tom Watson Park Enhancements	\$ 1,500,000	\$ -	\$ -	\$ -	\$ 1,500,000	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 7,940,000	\$ 1,720,000	\$ 1,720,000	\$ 1,000,000	\$ 500,000	\$ 1,000,000	\$ 2,000,000
	Boulder Reservoir South Improvement	\$ 3,000,000	\$ 1,500,000	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -
	EAB Response Measures	\$ 2,440,000	\$ 220,000	\$ 220,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
	Flatiron Golf Course Repairs	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ -
	Recreation Facility Repairs	\$ 2,000,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ 1,500,000
CIP-CAPITAL PLANNING STUDIES	Subtotal	\$ 350,000	\$ 100,000	\$ -	\$ -	\$ 250,000	\$ -	\$ -
	Parks and Rec Master Plan	\$ 250,000	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -
	Yard/Maintenance Facility Site Plan	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
CIP-LAND ACQUISITION	Subtotal	\$ 1,874,000	\$ -	\$ 374,000	\$ 1,500,000	\$ -	\$ -	\$ -
	Boulder Junction Rail Plaza	\$ 1,874,000	\$ -	\$ 374,000	\$ 1,500,000	\$ -	\$ -	\$ -
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 5,200,000	\$ 350,000	\$ 350,000	\$ 2,500,000	\$ 2,000,000	\$ -	\$ -
	Boulder Junction Pocket Park	\$ 700,000	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -
	Valmont City Park Development	\$ 4,000,000	\$ -	\$ -	\$ 2,000,000	\$ 2,000,000	\$ -	\$ -
	Violet Neighborhood Park	\$ 500,000	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -



Mapping

The mapping for CIP projects is now in a GIS-based electronic map [accessed here](#). All the map-able projects proposed for funding in the 2017–2022 are shown. If the icons are clicked, the project name, project number (referenced on the project sheets), department, funding source, and year with initial funding will be shown. For many projects the initial funding is currently showing as 2015 as projects have funding for planning and design before actual construction however, the construction timing may be in the future. Please consult the project sheets in each department section for project descriptions, phasing and funding information. Projects with funding earmarked for citywide or system improvements are not shown on the map. Ongoing refinement of the GIS-based map will result in greater clarity of project information.

Click here to access the Parks and Recreation Master Plan. <https://bouldercolorado.gov/parks-rec/parks-recreation-master-plan>

Click here to access the Aquatics Feasibility Plan. <https://bouldercolorado.gov/parks-rec/aquatics-feasibility-plan>

Click here to access all master plans for the City of Boulder. <https://bouldercolorado.gov/planning/department-master-plans-and-strategic-plans>



Project Name: Aquatic Facility Enhancements

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PARKS & RECREATION **Subcommunity:** SYSTEM-WIDE
Project Number: 5152185510 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

Based on recommendations of the aquatics Facility Study, these projects would provide implementation of key indoor aquatic facility enhancements or “watertainment” facilities that encourage additional community use for all age groups. These features include expanded waterplay for youth, warm water experiences for aging population and a variety of family oriented water features from a “lazy river” to water climbers. Projects will be developed with an extensive public engagement process for each facility.

Project Phasing

The Aquatic Facility Report identified enhancements to existing facilities. Initial work will take place at North Recreation Center Pool with additional work in out years at EBRC and Spruce Pool.

Public Process

A full public engagement process was completed as part of the department’s Aquatics Facility plan. As projects are ready for construction additional community engagement will be done for pool improvement projects that receive upgrades and improvements.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects are coordinated with FAM for upgrades and project management tasks

Change From Past CIP

New project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
.25 Cent Sales Tax	400000.00	\$0	\$0	\$2,000,000	\$0	\$500,000	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$2,900,000

Additional Annual Operating and Maintenance

Additional Annual O&M: None **Funding Source for O&M:**

Additional Annual O&M Description:

Existing funding is in place as part of budget



Project Name: Athletic Field Development

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PARKS & RECREATION

Subcommunity: SYSTEM-WIDE

Project Number: 5153302060

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

As recommended in the department's master plan and the Athletic Field Study, the Parks and Recreation Department intends to improve existing natural turf athletic fields and to replace some targeted existing turf fields with new synthetic turf in select park sites. The upgrade of existing natural grass fields and the conversion of select fields to artificial turf will increase the capacity of field use within the community by extending the season of use of the fields and allow more programmed uses resulting in improved benefits from field rentals and tournament play. The department has recently 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.

Project Phasing

Improvements to existing fields will be done on an annual basis.

Public Process

Public process will be conducted for major athletic field upgrades as part of normal park and recreation facility upgrades.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects are coordinated with FAM for upgrades and project management tasks

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Permanent Parks & Recreation	500000.00	\$500,000	\$200,000	\$250,000	\$250,000	\$750,000	\$1,000,000

Funding to Completion \$0
Future Unfunded \$0

Total Funding Plan: \$3,450,000

Additional Annual Operating and Maintenance

Additional Annual O&M: None

Funding Source for O&M:

Additional Annual O&M Description:

Existing funding is in place as part of budget



Project Name: Boulder Junction Pocket Park

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PARKS & RECREATION **Subcommunity:** CROSSROADS
Project Number: 5153501100 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

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 pocket improvement 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.

Project Phasing

Project development is coordinated with on going site improvements.

Public Process

A full public engagement process was completed as part of the city's planning process.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects are coordinated with other city departments including transportation and public works.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Bldr Junction Cap Imprvmt	750000.38	\$350,000	\$350,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$1,450,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 6,668 **Funding Source for O&M:**

Additional Annual O&M Description:

Annual maintenance will include irrigation, mowing, and maintenance.



Project Name: Boulder Junction Rail Plaza

Project at a Glance

Project Type: CIP-LAND ACQUISITION

Department: PARKS & RECREATION

Subcommunity: CROSSROADS

Project Number: 5153501050

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

This project was included in the list of Key Public Improvements as part of the Transit Village Area Plan (TVAP) - Implementation Plan. This project includes the land acquisition costs for the development of the Rail Plaza in 2019, pending coordination with private development in the location of the plaza.

Project Phasing

Project development is coordinated with on going site improvements.

Public Process

A full public engagement process was completed as part of the city's planning process.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects are coordinated with other city departments including transportation and public works.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Bldr Junction Cap Imprvmt	0.00	\$0	\$374,000	\$1,500,000	\$0	\$0	\$0

Funding to Completion \$0

Future Unfunded \$0

Total Funding Plan: \$1,874,000

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Boulder Reservoir 51st Street Path

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PARKS & RECREATION **Subcommunity:** AREA III
Project Number: 5153300510 **BVCP Area:** AREA III
CEAP Required: Yes **CEAP Status:**

Project Description

As an outcome of the 2012 Boulder Reservoir Master Plan and subsequent outreach related to needed improvements at the Reservoir, this project will complete a new pathway along 51st and 55th Streets along the west side of the Reservoir. This path segment will provide connectivity for larger trail networks including the Colorado Front Range Trail, Trail Around Boulder and many regional trails within the City's North Trail Study Area. The key need for this path is related to the safety of pedestrians and cyclist already using the county roads in this area and the need for a separated pathway.

Project Phasing

Final design will be completed in early 2019 with construction anticipated to begin in the fall of 2019.

Public Process

The community and key user groups will be engaged in the development of the alignment and design of the path to balance recreational needs with the distinct ecological needs of the area. The community will be invited to provide feedback on the design options and construction methods to satisfy the needs of the users. Staff will also explore grant funding opportunities and other alternative funding sources to leverage the public funding contributions. The Parks and Recreation Advisory Board will review and consider the preferred alignment for approval.

DET/Impact Fees

50/50 shared cost for trail - DET funding and Permanent Parks and Recreation Fund

Interdepartmental and Interagency Collaboration

Staff will work closely with Boulder County Transportation and capital projects staff, Open Space and Mountain Parks related to trail connectivity at Eagle Trailhead and Public Works staff related to the engineering aspects of the design and construction.

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Permanent Parks & Recreation	0.00	\$0	\$0	\$500,000	\$0	\$0	\$0
						Funding to Completion \$0	Future Unfunded \$0
Capital Development	0.00	\$0	\$0	\$500,000	\$0	\$0	\$0
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,000,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$65,000 **Funding Source for O&M:**

Additional Annual O&M Description:

on-going trail maintenance



Project Name: Boulder Reservoir South Improvement

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PARKS & RECREATION

Subcommunity: AREA III

Project Number: 5153305020

BVCP Area: AREA III

CEAP Required: Yes

CEAP Status:

Project Description

The department's master plan and the Reservoir Master Plan identified a number of deferred maintenance backlog items to buildings and grounds. Many of these facilities have not had major repairs or upgrades for a number of years and no longer function as designed. These funds will support the recent bond funded improvements made to the infrastructure at the Reservoir including new bath house and shelter, renovated boat house and improvements to picnic and family areas.

Project Phasing

Initial work will include site assessments for major buildings and development of design drawings prior to construction.

Public Process

A full public engagement process was completed as part of the department's Reservoir Management Plan. Additional public engagement will take place in 2016 as part of the final design development for the site.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects are coordinated with FAM and Public Works for upgrades to infrastructure and with Fire Department for coordination of access and public safety.

Change From Past CIP

New project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Permanent Parks & Recreation	0.00	\$1,500,000	\$1,500,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$3,000,000

Additional Annual Operating and Maintenance

Additional Annual O&M: None

Funding Source for O&M:

Additional Annual O&M Description:

Existing funding is in place as part of budget



Project Name: EAB Response Measures

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PARKS & RECREATION **Subcommunity:** SYSTEM-WIDE
Project Number: 5152183100 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

In late September 2013, the department's Forestry staff discovered an Emerald Ash Borer (EAB) infestation within the city. The subsequent delimitation survey showed that EAB is 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.

Project Phasing

As part of the Forest Management Plan and the EAB Response Plan annual work plans will be developed to address expanded EAB infestation.

Public Process

An extensive public process will be conducted for education and replacement options as the infestation of EAB expands.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This is an inter-department and inter-agency process including CU, State and Federal agencies.

Change From Past CIP

Increased funding in out years

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
.25 Cent Sales Tax	237015.25	\$220,000	\$220,000	\$500,000	\$500,000	\$500,000	\$500,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$2,677,015

Additional Annual Operating and Maintenance

Additional Annual O&M: None **Funding Source for O&M:**

Additional Annual O&M Description:
 Annual funds are utilized to remove and replace existing Ash trees



Project Name: Flatiron Golf Course Repairs

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PARKS & RECREATION **Subcommunity:** SOUTHEAST BOULDER
Project Number: 5153304150 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

The Flatirons Golf Course is the city's only course and provides a unique and highly valued service to the region. The department's master plan as well as other supporting plans prioritizes the maintenance and management of the course to ensure the community's needs are met in a safe and aesthetic facility. Currently the course is in need of repairs to the many cart paths along the course to ensure safety and accessibility to all users. Additionally, due to the recent removal of the event center and needs to improve the clubhouse, this project will provide funding to begin the repairs and redevelopment of the site in conjunction with additional leveraged funding sources. This project allows the golf course to remain competitive in a growing market.

Project Phasing

This initial project will be completed within one year.

Public Process

Public process will be conducted with facility user groups as appropriate to provide notification of work and minimize disturbance to facility use.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This work will be coordinated with other departments as needed.

Change From Past CIP

Added \$100,000 in 2016

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Permanent Parks & Recreation	300000.00	\$0	\$0	\$0	\$0	\$500,000	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$800,000

Additional Annual Operating and Maintenance

Additional Annual O&M: None

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: General Park Improvements

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PARKS & RECREATION **Subcommunity:** SYSTEM-WIDE
Project Number: 5152112110 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

Boulder's park system is foundational to the mission of the Parks and Recreation Department. Upon completion of the department's master plan in 2013, 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.

Project Phasing

As part of the Asset Management Program (AMP) all systems have been evaluated and are placed on a 20 year rotation for upgrades and repairs.

Public Process

Public process will be conducted with specific neighborhood and user groups the year prior to the projects to identify concerns and community desires for play structures and park features.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects are coordinated with other departments to identify overlapping work and shared savings.

Change From Past CIP

Increased due to moving operating costs out of lottery fund

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Lottery	360300.00	\$754,800	\$428,000	\$428,000	\$428,000	\$428,000	\$428,000
						Funding to Completion \$0	Future Unfunded \$0
.25 Cent Sales Tax	239700.00	\$745,200	\$72,000	\$572,000	\$572,000	\$1,572,000	\$1,572,000
						Funding to Completion \$0	Future Unfunded \$0
Total Funding Plan:	\$8,600,000						

Additional Annual Operating and Maintenance

Additional Annual O&M: None **Funding Source for O&M:**

Additional Annual O&M Description:
Existing funding is in place as part of budget



Project Name: Lighting Ordinance Implementation

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PARKS & RECREATION

Subcommunity: SYSTEM-WIDE

Project Number: 5152182070

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status:

Project Description

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 renovations of playgrounds and irrigation systems to ensure safe, functional and attractive facilities. The specific playground and park irrigation system that will be renovated will be decided on an annual basis through an asset management life-cycle program and communicated to the public through an extensive public engagement process. Projects are necessary to comply with goals and commitments identified in the department's master plan and to maintain quality and safety standards as facilities age. 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.

Project Phasing

This project will include design and replacement of existing lighting.

Public Process

Public process will be coordinated with other department's doing similar work in individual neighborhoods as needed.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This work will be coordinated with other departments responsible for light replacement as needed.

Change From Past CIP

No changes

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
.25 Cent Sales Tax	250000.00	\$250,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$500,000

Additional Annual Operating and Maintenance

Additional Annual O&M: None

Funding Source for O&M:

Additional Annual O&M Description:

Existing funding is in place as part of budget



Project Name: Parks and Rec Master Plan

Project at a Glance

Project Type: CIP-CAPITAL PLANNING STUDIES
Department: PARKS & RECREATION **Subcommunity:** SYSTEM-WIDE
Project Number: 5153300500 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:** n/a

Project Description

This project will provide a comprehensive update to the department's master plan that was last updated in 2014. The department has a goal of reviewing and updating the plan on a 5 year cycle to ensure the department services, programs and facilities are delivered to the community based on the best available data and community needs. This project will provide background data collection, needs assessment and a prioritized implementation schedule with policy recommendations.

Project Phasing

The planning process will begin in 2020 and continue for approximately one year.

Public Process

The master plan process will include an exhaustive public engagement component to involve the community in a variety of opportunities and innovations to ensure everyone has a voice to share input and feedback. The Parks and Recreation Advisory Board and City Council will ultimately have the final opportunity to review and consider the plan for approval.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will involve virtually every department within the city organization as staff works with the inter-departmental master plan coordination group. External stakeholders will also be engaged to determine efficiencies and opportunities for partnership with allied service providers.

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Permanent Parks & Recreation	0.00	\$0	\$0	\$0	\$250,000	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$250,000

Additional Annual Operating and Maintenance

Additional Annual O&M: No direct impact on O&M **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Recreation Facility Repairs

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PARKS & RECREATION

Subcommunity: NORTH BOULDER

Project Number: 5152186150

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

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 will complete a strategic plan for all recreation centers that illustrates implementation priority for critical projects. Pending the outcome and strategies of the Recreation Facility Strategic Plan, this project will fund the initial implementation projects outlined within the plan. A critical project that has been identified previously includes renovating the front desk area at the North Boulder Recreation Center to increase operational efficiency of user access and safety of center customers.

Project Phasing

The department is undertaking a comprehensive analysis of all major recreation facilities including building condition assessments and programming needs in 2016. Design for major upgrades identified in this study will be programmed in appropriate years.

Public Process

Public process will be conducted as part of the Recreation Facility Plan with additional public outreach prior to individual facility upgrades being implemented.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects are coordinated with FAM for overall building facility condition assessments as well as with Human Services as part of their overall master plan for facilities.

Change From Past CIP

No Change

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
.25 Cent Sales Tax	0.00	\$0	\$0	\$500,000	\$0	\$0	\$1,500,000
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$2,000,000

Additional Annual Operating and Maintenance

Additional Annual O&M: None

Funding Source for O&M:

Additional Annual O&M Description:

Existing funding is in place as part of budget



Project Name: Scott Carpenter Aquatics

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PARKS & RECREATION **Subcommunity:** CROSSROADS
Project Number: 5152184500 **BVCP Area:** AREA I
CEAP Required: Yes **CEAP Status:**

Project Description

Based on the outcomes of the Aquatics Feasibility Plan, the replacement of Scott Carpenter Pool is necessary based on the lifecycle analysis and increased demand for lap swimming. This project will replace and enhance the Scott Carpenter pool, enhance the bathhouse and provide necessary park upgrades to accommodate the enhancements. 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). Design will be completed in 2017 with construction beginning in 2018 and completed in 2019.

Project Phasing

Aquatics Feasibility Plan: 2015
 Planning and Design: \$100,000 budgeted 2016
 Construction: \$7,000,000 budgeted over 2 years (2017-2018)

Public Process

The design of the project will be based on the community needs and outcomes from the Aquatics Feasibility Plan. The community will be involved in reviewing design concepts and providing feedback. The Parks and Recreation Advisory Board will review and consider the design for approval.

DET/Impact Fees

Expansion of pool from 6 lanes to 10 lanes due to population growth and increased demand for swimming facilities

Interdepartmental and Interagency Collaboration

Staff will coordinate with Public Works related to facilities, transportation, floodplain and engineering review. The Boulder Fire Department will also be consulted with related to the location of the Fire Station adjacent to Scott Carpenter Park.

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
.25 Cent Sales Tax	0.00	\$1,000,000	\$4,000,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0
Capital Development	0.00	\$0	\$3,000,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$8,000,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$625,000 **Funding Source for O&M:**

Additional Annual O&M Description:
 Increase in O&M for expanded pool and included in current budget; materials, supplies and staff to safely operate



Project Name: Tom Watson Park Enhancements

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PARKS & RECREATION **Subcommunity:** GUNBARREL
Project Number: 5152184600 **BVCP Area:** AREA I
CEAP Required: Yes **CEAP Status:** n/a

Project Description

This project will provide key enhancements to public amenities within Tom Watson Park based on outcomes from a public planning process as well as opportunities for leveraging private funding with public resources.

Project Phasing

Project planning and design will be completed in 2019 with initial construction to begin in 2020 pending partnership involvement and funding availability.

Public Process

The Gunbarrel community will be involved in reviewing design alternatives and providing prioritization of key improvements based on available funding. Key project partnerships will also be explored to leverage alternative funding sources with public funding. The Parks and Recreation Advisory Board will review and consider the final design for approval.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Department staff will coordinate with various city departments as necessary including OSMP, Public Works and Community Vitality. Similarly, Boulder County will be involved as necessary related to surrounding county properties.

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
.25 Cent Sales Tax	0.00	\$0	\$0	\$0	\$1,500,000	\$0	\$0
					Funding to Completion	\$0	\$0
					Future Unfunded	\$0	\$0

Total Funding Plan: \$1,500,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**

Additional Annual O&M Description:

Improvements to the park will reduce the annual O&M



Project Name: Valmont City Park Development

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PARKS & RECREATION **Subcommunity:** EAST BOULDER
Project Number: 5152104700 **BVCP Area:** AREA I
CEAP Required: Yes **CEAP Status:**

Project Description

As an outcome of the 2015 concept plan update for Valmont City Park, this project will provide the development of the park areas south of Valmont Road to meet the needs of the growing community and fulfill commitments of the Parks and Recreation Master Plan for levels of service related to Boulder's only city park. Pending final design and funding availability, key improvements may include innovative children's play areas, adventure-themed active recreation areas, community event spaces, disc golf expansion and large picnic areas.

Project Phasing

Detailed design will begin in 2019 with construction anticipated in 2020 pending funding availability.
 Design total: \$200,000, Construction total: \$3,800,000

Public Process

The community will be involved in reviewing design alternatives and providing feedback related to the prioritization of key amenities that are scheduled for construction. Staff will be exploring partnerships and opportunities to leverage alternative funding sources with the community. The Parks and Recreation Advisory Board will review and consider the final design for approval.

DET/Impact Fees

Portion of project eligible for use of DET funding due to growth in population size and increased demands for recreation opportunities

Interdepartmental and Interagency Collaboration

Staff will coordinate among many teams within Planning and Public Works as necessary related to parking, transportation, flood analysis and general engineering requirements.

Change From Past CIP

new project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Capital Development	0.00	\$0	\$0	\$1,000,000	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0
.25 Cent Sales Tax	5035.62	\$0	\$0	\$1,000,000	\$2,000,000	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$4,005,036

Additional Annual Operating and Maintenance

Additional Annual O&M: \$80,000 **Funding Source for O&M:**
Additional Annual O&M Description:

Increased maintenance of new amenities within the undeveloped park



Project Name: Violet Neighborhood Park

Project at a Glance

Project Type:	CIP-NEW FACILITY/INFRASTRUCTUR		
Department:	PARKS & RECREATION	Subcommunity:	NORTH BOULDER
Project Number:	5152102500	BVCP Area:	AREA I
CEAP Required:	Yes	CEAP Status:	Pending

Project Description

Violet Park is an undeveloped neighborhood park located along Violet Avenue east of Broadway in North Boulder. The park was acquired several years ago to satisfy the level of service requirements for the City to meet the needs of the growing community by providing park land and amenities to North Boulder. This project will allow funding for the initial development of the park in conjunction with the planned Fourmile Canyon Creek Greenway improvements through this reach of the creek. The Greenway Project will provide funding for the multi-use path while the park funding will allow for initial phase of development of the park. By combining the projects, the City will realize an economy of scale with both projects developing concurrently. Funding for ongoing Operations and Maintenance costs has not yet been identified. It is anticipated that this will be identified prior to completion of the project in 2019.

Project Phasing

This is a new park development and will include a public planning and design phase in 2018 with the construction phase beginning in 2019.

Public Process

The neighborhood will be involved in the design process of the park by reviewing design options and providing feedback to develop a preferred alternative. The preferred alternative will be presented to the Parks and Recreation Advisory Board for review and consideration for approval.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Department staff will work closely in coordination with Public Works staff to develop an integrated design solution that is sensitive to the flood mitigation and path alignment along Fourmile Canyon Creek while also providing a vibrant neighborhood park that is sustainable and meet the objectives for flood safety and mitigation as well as the recreation needs of the neighborhood.

Change From Past CIP

No Changes

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Capital Development	0.00	\$0	\$0	\$500,000	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$500,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$2,529 per acre

Funding Source for O&M:

Additional Annual O&M Description:

New facilities planned for the park. Final O&M TBD



Project Name: Yard/Maintenance Facility Site Plan

Project at a Glance

Project Type: CIP-CAPITAL PLANNING STUDIES

Department: PARKS & RECREATION

Subcommunity: EAST BOULDER

Project Number: 5153302310

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status:

Project Description

The recent General Maintenance and Management Plan developed for the department outlined a deficiency and need for improved or new maintenance facilities to accommodate the level of staffing and storage of equipment to maintain parks and recreation facilities at acceptable standards. This project will provide the prioritized development of site plans and cost estimates for capital repairs and expansion to existing maintenance facilities per the master plan, the General Maintenance and Management Plan and the Municipal Service Center recommendations.

Project Phasing

This is a planning study to evaluate maintenance operations for efficiency and required asset improvements.

Public Process

Internal public engagement with staff and various departments will be conducted as part of this process.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This plan will coordinate closely with all YARDS service related departments

Change From Past CIP

New project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Permanent Parks & Recreation	0.00	\$100,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$100,000

Additional Annual Operating and Maintenance

Additional Annual O&M: None

Funding Source for O&M:

Additional Annual O&M Description:

Planning will not have a direct impact on O&M

Overview of Department Mission

The Boulder Police Department's (BPD) mission is working 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.

Funding Overview

The Police Department is funded by the General Fund. Currently there is no specific capital funding source for General Fund departments and capital needs are addressed on a case by case basis, as funds are available. Strategies for addressing unfunded capital needs are being developed.

Potential sources of funding for the capital projects noted below include each of the following or any combination of:

- An Increase in sales and use tax,
- An increase in property tax and mill levy,
- Bond funding, or
- Use of existing operating funding to build a capital fund or pool of money available for capital projects.

Current Focus for Capital Planning and Projects in 2017

The Police Department along with Facilities and Asset Management (FAM) are having a study done to evaluate the City Radio Infrastructure and equipment. The current system is used not only by Police and Fire, but also by Open Space and Mountain Parks, and Public Works. The study will address issues with the current infrastructure as well as identify the next steps to meet the emerging needs of the radio system.



Highlights

Projects Expected for Completion in 2016

The Asset Forfeiture Funds allowed the department to purchase a new Records Management System (RMS). The RMS is an important tool to more efficiently use the current technology to document crime, analyze crime trends, and determine appropriate police response. The new RMS is projected to be online by December of 2016. The department is also creating a safer, more secure, entrance into the Public Safety building by securing the gate entrances at both the North and South sides of the building. This project should be completed by October 2016.

Priority Projects for 2017

None

Highlights of 2018–2022 Projects

None

Guiding Principles and Project Prioritization

CIP Guiding Principles

Projects included in the CIP are in line with CIP Guiding Principles. These projects have been identified in the Police Master Plan, leveraged funding was accessed where possible, and the department is working collaboratively with multiple other departments in a comprehensive look at the radio system infrastructure, in order to maximize public safety and minimize duplicative efforts and costs.

Prioritization

Future and on-going capital needs have been identified and prioritized through the 2013 Police Master Plan and are listed in the unfunded section below.

Projects Not in Master Plan

None

Projects not Previously Identified in the CIP

None

Operation and Maintenance Impacts

The department has nothing identified for 2017–2022.



Deferred, Eliminated, or Changed Projects

None

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 in order 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. Estimated cost \$25 to \$30 million.
- **City-wide Radio Infrastructure.** Over the next 5 years, much of the city's radio infrastructure will need to be replaced due both to age and new unfunded narrow-banding mandates from the Federal Communications Commission (FCC). This will include the need for new infrastructure as well as new radios, and radio pack sets for all departments using the radio system. Police, Fire, OSMP, Transportation and other departments within the city all use radios as a means of communication, especially in emergencies. Facilities and Asset Management (FAM) is having a cost analysis done in 2016 to determine what the upgrades to the radio infrastructure will cost. The estimated cost of the infrastructure upgrades is \$5 to 6 million.
- **Gold Elite Radio Consoles.** The new narrowing banding mandates, required by the FCC, will make this type of system necessary in the Police/Fire Communications Center. Estimated cost \$1.5 million.

Click here to access the Boulder Police Department Master Plan. https://www-static.bouldercolorado.gov/docs/MasterPlan_final.9.2.13-1-201309040853.pdf

Click here to access all master plans for the City of Boulder. <https://bouldercolorado.gov/planning/department-master-plans-and-strategic-plans>

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Overview of Department/Division Mission

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 focus on 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 five separate funds:

- Airport Fund
- Transportation Fund
- Transportation Development Fund
- Boulder Junction Improvement Fund
- Community Culture and Safety Fund

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 Moving Ahead for Progress in the 21st Century Act (MAP-21) federal. In November of 2013, Boulder voters passed two tax initiatives that increase the transportation fund by .15% dedicated sales tax annually for the next 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 and growth. Funding for the Transportation Development Fund is provided primarily through the transportation excise tax (TET) revenues. The TET was instituted in the 1980s to fund transportation improvements related to growth and is paid by commercial and residential 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 the Boulder Junction Area that will be reinvested into Key Public Improvements in this area. Transportation Excise and Transportation and General Fund Construction Use Taxes collected from development in the area is being used on these improvements in addition to other money budgeted in the Transportation CIP and funds obtained from federal transportation grants (Pearl N. Multiway Boulevard and Multi-use Path). Other department funding sources is also being used for these projects including Public Works Utilities (infrastructure upgrades) and Parks and Recreation (Boulder Junction Fund– new park facilities).

Current Focus for Capital Planning and Projects in 2017 Project Highlights

The projects in the capital improvements program are selected



The Runway and Eastern Taxiway at Boulder Municipal Airport. A rehabilitation project is supposed to be complete by 2020.



and developed to implement TMP priorities. The TMP prioritized a system of multimodal corridors in the city for strategic investment and completion. The term multimodal corridor has now been replaced with “complete street.” Complete Streets not only include the street envelope but also facilities for the associated ¼ mile travel shed on either side. Also, Complete Streets capital projects incorporate commissioned art in the design and infrastructure, typically at a rate of 1 to 1.5%, and address or recognize place-making in coordination with land use and zoning and adjacent land owners.

Projects Expected for Completion in 2016

- Diagonal – 28th Street to East of 30th Street – reconstruction and multi-modal Improvements
- 28th Street Multi-Use Path and On-Street Bicycle Facility Improvements from Iris to Yarmouth – Project will be completed in summer of 2016
- Baseline Underpass – east of Broadway and associated Multi-use Path and sidewalk Improvements
- Transit Stop Improvements – this project implemented transit stop improvements and enhancements at 12 locations around the city
- Frontier Avenue Bridge Replacement – This bridge was had fallen into a state of disrepair and needed replacement.
- 29th/Valmont Safety Project with Federal Hazard Elimination Grant – installation of a traffic signal and associated pedestrian improvements.
- Hanover Multi Use Path – implementation of a multi-use path along the north side of Hanover Avenue as well as traffic calming intersection improvements at each of the intersections.

Priority Projects for projects for 2017

- 30th/Colorado Corridor Study –This is a corridor study that began in 2016 and will also be a significant effort in 2017 and is anticipated to conceptually identify future key transportation projects. Projects identified and their associated costs will be prioritized so that the projects can be included and implemented in later capital project funding.
- Canyon Corridor Study – In conjunction with the Civic Area revitalization and planning efforts, this is a transportation corridor study that began in 2016 and will also be an important effort into 2017. The 2017 effort will identify future key transportation projects along the corridor in addition to an implementation and phasing plan that is anticipated to be included and implemented in later capital project funding.
- 19th Sidewalk Project – This is an important north-south corridor within North Boulder that is



in need of a “complete street” improvement. 2017 will see the project concepts and design fully developed and an implementation plan prepared for the current and future CIP.

Highlights of 2018–2022 Projects

- TIP Projects – 2016 was a significant transition year for integration of the project submittals that were successful in securing federal funding through the Denver Regional Council of Governments (DRCOG) Transportation Improvement Program (TIP). Funding identified in the prior year’s CIP generically as “TIP local match” was redistributed for the required local match for the below noted TIP projects that are all in design as of 2016 and will be heading for construction in the 2018–2019 time frame:
 - Boulder Slough Multi–use Path (30th to 3100 Pearl): \$480k
 - Broadway Reconstruction (Violet to US 36): \$6,225k
 - 30th and Colorado Ave. Ped/Bike Underpass: \$4,750k
 - Colorado and Foothills Underpass: \$3,200k
- TAP/SRTS Grant Funds – In addition to TIP funds for the aforementioned projects, the city was successful during 2015/2016 in obtaining \$140k of Transportation Alternatives Program (TAP) grant funds and was notified in early 2017 of an additional award of \$350k of Safe Routes to School (SRTS) funds. Both of these grants will go toward the 19th Street corridor project between Norwood and Yarmouth, with a strong focus on implementing improved pedestrian facilities between Norwood and Sumac, adjacent to Crestview Elementary School. Funding identified in the prior year’s CIP generically as “TIP local match” was redistributed for the required local match for the above TAP/SRTS 19th Street project.
- Joint Projects with County – In addition to the grant funded projects the city is also a funding partner on two Boulder County TIP projects. This funding is identified in the 2017–2022 CIP under the “Boulder County/City Joint TIP Projects” line item. The total city contribution is \$289k. The two projects are bike/pedestrian infrastructure improvements:
 - 71st St Multi–use Path (Winchester to Idylwild Trail) – \$151k
 - Williams Fork Trail Multi–use Path (63rd to Twin Lakes) – \$138k
- Quiet Zone Implementation – The City, along with regional community partners such as Boulder County, has received funding to initiate and implement railroad crossing Quiet Zone improvements along the Burlington Northern Santa Fe (BNSF) railroad corridor. The objective is to address train horn noise impacting communities in and around Boulder. There are a total of nine crossings, five within the City of Boulder and four adjacent to the city. For the



crossings adjacent to the city limits, it is anticipated that these Quiet Zones would be implemented in partnership with Boulder County. The crossings will be evaluated and prioritized based on feasibility, estimated benefit, and cost. Selected crossings will be implemented within the identified budget and a phasing plan developed for any remaining crossings. The total cost to upgrade all city of Boulder crossings to quiet zones is estimated to cost between \$3.5M and \$5.0M. Funding currently programmed in the CIP is for the DRCOG TIP (\$1.2M) funding and associated city match (\$300k). The final project scope and funding strategy will be determined by an extensive stakeholder and public engagement process.

- Major Capital Maintenance Investments– the primary strategy for the major capital maintenance budgets is to make ongoing and sustainable allocations to maintenance and operations activities that are consistent with the gap identified through the development of the transportation maintenance fee.
- Airport CIP – Rehabilitation of Airport Parking Ramp in 2018 and the Airport Runway in 2018/2020. Funding is (95%, 2.5%, 2.5%) FAA, Colorado Department of Transportation (CDOT), and City respectively.

Board Action

The Transportation Advisory Board (TAB) approved the recommendation of the 2017–2022 Capital Improvement Program Budget on June 13, 2016.

Guiding Principles and Prioritization

All proposed projects in the 2017–2022 CIP are consistent with the TMP, updated in 2014, and its budget guiding principles. The citywide CIP Guiding Principles share many of the same traits as the TMP Budget Guiding Principles including focusing on maintenance and safety of the existing system, leveraging external funding and supporting community sustainability goals.

Guiding Principles

Key Guiding Principles include the following:

- As top priority, maintain and operate the existing, valuable multi-modal system, including investments in safety
- As additions are made to the system, address ongoing operation and maintenance needs
- Continue to advance innovations in the design, construction, operation and maintenance of the system



- Strategically enhance the Complete Street network, prioritizing projects that have maximum impact improving safety, mobility and efficiency
- Advance corridor studies integrating the city's Sustainability Framework and Resiliency
- Leverage external funds extending the ability of local dollars to implement city goals
- Continuously strive for efficiency and effectiveness in how work is accomplished
- Assure budget decisions are sustainable over time
- Keep in mind the goal of identifying long-term, sustainable funding that is tied to vehicle use

Prioritization

Aligning with the policies of the Transportation Master Plan is an important aspect of the Transportation Budget's guiding principles. The TMP calls for developing a balanced multimodal system that offers transportation choices. In Council/Board budget processes, a list of budget guiding principles has been developed and updated to reflect the positive vote in November, 2013. It includes priorities and strategies that are used to develop the Transportation CIP. The 2014 TMP stated priorities include the following:

- Priority #1 – system operations, maintenance and travel safety
- Priority #2 – operational efficiency improvements and enhancement of the transit, pedestrian and bicycle system
- Priority #3 – quality of life, such as sound walls and traffic mitigation
- Priority #4 – auto capacity additions (new lanes and interchanges)

Projects Not in Master Plans

The TMP Update process was completed in 2014 with acceptance by City Council on August 5, 2014. Results from the update have been used to inform the 2017–2022 CIP. All projects presented in this CIP are represented in the 2014 TMP Update and Action Plan.

Operation and Maintenance Impacts

The 2017–2022 CIP largely implements projects that will lead to reduced maintenance at key locations where greater maintenance efforts are being expended due to facilities reaching the end of their service life. Recent sales tax initiatives have led to an additional 0.15% tax increase annually that has been and will continue to fund deferred and newly identified transportation maintenance. The transportation division has been adding a significant portion of the transportation sales tax increases over the last few years into the maintenance and operations of the system.



One notable administrative/accounting change for transportation major capital maintenance is associated with a modification in accounting practice. This change will move four capital maintenance budget line items (Miscellaneous Sidewalk Maintenance, Multi-use Path Capital Maintenance, Major Street Reconstruction, and Pavement Maintenance Program) from the operating to the capital budget. The amount of funding for each function is unchanged.

Projects Not Previously Identified in a CIP

Transportation Fund

The recommended Transportation Fund 2017–2022 CIP includes the following changes not previously identified in a CIP:

- TIP Local Match/TMP Implementation—as mentioned above in the budget strategy section, CIP funding in this line item was reallocated to cover the local match requirements of the successful DRCOG TIP submittals as well as the recently awarded SRTS grant. Remaining line item funding in the next three years of the CIP (2017–2020) will be focused on TMP implementation with an emphasis on the top corridor priorities (Arapahoe, 30th Street and Colorado Avenue). As implementation strategies for these corridors become more focused from the study efforts, individual projects will be programmed into the future years of the CIP.
- Quiet Zone Implementation— as noted above, the City, along with regional community partners such as Boulder County, has received funding to initiate and implement railroad crossing Quiet Zone improvements along the Burlington Northern Santa Fe (BNSF) railroad corridor. The total cost to upgrade all city of Boulder crossings to quiet zones is estimated to cost between \$3.5M and \$5.0M. Funding currently programmed in the CIP is for the DRCOG TIP (\$1.2M) funding and associated city match (\$300k). The final project scope and funding strategy will be determined by an extensive stakeholder and public engagement process.
- Major Capital Maintenance – As noted above, an administrative/accounting change for transportation major capital maintenance has been made for 2017 and beyond. This is an accounting practice modification that will move four capital maintenance budget line items (Miscellaneous Sidewalk Maintenance, Multi-use Path Capital Maintenance, Major Street Reconstruction, and Pavement Maintenance Program) from the operating to the capital budget. The amount of funding for each function is unchanged.

Transportation Development Fund

The recommended Transportation Development Fund 2017–2022 CIP includes the following three



changes:

- TIP Local Match/TMP Implementation– Consistent with the funding approach for TIP Local Match/TMP Implementation for the Transportation Fund, funding from the Transportation Development Fund will be focused on TMP implementation with an emphasis on the top corridor priorities (Arapahoe, 30th Street and Colorado Avenue). Moreover, a proposed budget change for the 2017–2022 CIP is that the Transportation Development Fund will be providing funding toward the following TIP projects previously awarded:
 - Boulder Slough Multi–use Path (30th to 3100 Pearl)
 - 30th and Colorado Ave. Ped/Bike Underpass
 - Boulder County/City Joint TIP Projects

The ability of Transportation Development Fund to make contributions toward these TIP projects permits the Transportation Fund to continue to make improvements and investments in preserving the system.

Deferred, Eliminated, or Changed Projects

Transportation Fund

- TIP Local Match/TMP Implementation–as mentioned above in the budget strategy section, CIP funding in this line item was reallocated and increased for some projects to cover the local match requirements of the successful prior year DRCOG TIP submittals as well as increased construction program costs.

Transportation Development Fund

- TIP Local Match/TMP Implementation–funding for this item has been increased by \$2.91 Million over the 2017–2022 CIP. This increase in funding contribution will help to offset escalating project costs due to construction prices exceeding the rate of inflation. Moreover, funding in future years will be focused on TMP implementation with an emphasis on the top corridor priorities (Arapahoe, 30th Street and Colorado Avenue).

Boulder Junction Improvement Fund

- The Boulder Junction Improvement Fund CIP is approaching the end of the planned improvements. The Boulder Junction Improvement Fund CIP is unchanged from the 2017–2022 CIP.



Unfunded Projects and Emerging Needs

The unfunded projects list in the Transportation Fund is informed by the area/corridor planning processes including next phase Civic Area planning, Envision East Arapahoe and 30th Street/ Colorado Avenue planning. The transportation project needs identified in the plans are currently unfunded. Planning and design efforts would help inform future capital bond initiatives and potential leveraged funding opportunities, such as through competitive TIP or state grant opportunities. Also, Boulder Junction implementation may potentially have additional transportation connections needs that are not currently funded beyond the first phase of high priority Key Public Improvements in the Phase 1 area.

In the bigger picture of transportation unfunded improvements, the 2014 TMP established updated funding at three levels —Current Funding, Action Plan, and Vision Plan – through 2035. Much of the Action Plan and all of the Vision Plan capital improvements are unfunded at current funding levels.

With regard to emerging needs, as noted above, in areas of change such as Civic Area, East Arapahoe and CU Boulder’s East campus, capital improvements will likely need funding in the future.

Table 16-1: 2017-2022 Funding Summary By Department

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PW/TRANSPORTATION	Department Total	\$ 91,742,810	\$ 16,227,635	\$ 24,696,635	\$ 11,579,635	\$ 16,079,635	\$ 11,579,635	\$ 11,579,635
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 41,763,000	\$ 8,407,500	\$ 14,673,500	\$ 4,670,500	\$ 4,670,500	\$ 4,670,500	\$ 4,670,500
	19th St (Norwood to Sumac)	\$ 744,000	\$ 567,000	\$ 177,000	\$ -	\$ -	\$ -	\$ -
	Bldr County/City Joint TIP Projects	\$ 151,000	\$ -	\$ 151,000	\$ -	\$ -	\$ -	\$ -
	Broadway Recon Violet to 36	\$ 6,825,000	\$ 1,250,000	\$ 5,575,000	\$ -	\$ -	\$ -	\$ -
	Foothills & Colorado Underpass	\$ 4,400,000	\$ 960,000	\$ 3,440,000	\$ -	\$ -	\$ -	\$ -
	Greenways Program Transportation	\$ 585,000	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500
	Misc Development Coordination	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	Pavement Management Program	\$ 24,258,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000	\$ 4,043,000
	Quiet Zone Implementation	\$ 1,320,000	\$ 660,000	\$ 660,000	\$ -	\$ -	\$ -	\$ -
	TIP Local Match TMP Implementation	\$ 2,880,000	\$ 480,000	\$ 480,000	\$ 480,000	\$ 480,000	\$ 480,000	\$ 480,000
	Valmont & 29th Hazard Elimination	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 20,512,810	\$ 2,703,135	\$ 3,073,135	\$ 2,559,135	\$ 7,059,135	\$ 2,559,135	\$ 2,559,135
	Deficient Street Light Pole Replace	\$ 749,000	\$ 265,000	\$ -	\$ 121,000	\$ 121,000	\$ 121,000	\$ 121,000
	Major Capital Reconstruction	\$ 4,800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000
	Major Street Reconstruction	\$ 2,304,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000	\$ 384,000
	Multiuse Path Capital Maintenance	\$ 2,382,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000	\$ 397,000
	Ped Facilities Repair, Replace, ADA	\$ 3,774,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000	\$ 629,000
	Rehab Runway & Eastern Taxiway	\$ 4,935,000	\$ -	\$ 435,000	\$ -	\$ 4,500,000	\$ -	\$ -
	Sidewalk Maintenance	\$ 1,368,810	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135	\$ 228,135
	Signal Maintenance & Upgrade	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -
CIP-CAPITAL PLANNING STUDIES	Subtotal	\$ 100,000	\$ 100,000	\$ -				
	Trans Corridor 30th & Colorado	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 29,367,000	\$ 5,017,000	\$ 6,950,000	\$ 4,350,000	\$ 4,350,000	\$ 4,350,000	\$ 4,350,000
	30th St and Colorado Bike/Ped Under	\$ 5,200,000	\$ 600,000	\$ 4,600,000	\$ -	\$ -	\$ -	\$ -
	30th St and Colorado Bike/Ped Under	\$ 2,000,000	\$ 700,000	\$ 1,300,000	\$ -	\$ -	\$ -	\$ -
	Baseline Underpass Broadway to 28th	\$ 700,000	\$ 700,000	\$ -	\$ -	\$ -	\$ -	\$ -
	BJ Traffic Signal Bluff St & 30th	\$ 228,000	\$ 228,000	\$ -	\$ -	\$ -	\$ -	\$ -
	BJ Traffic Signal Jct & Valmont	\$ 304,000	\$ 304,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Junction - Develop Coord	\$ 75,000	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Slough Multiuse Path 30th	\$ 435,000	\$ 435,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Slough Multiuse Path 30th	\$ 125,000	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Multiuse Path - Enhancements	\$ 1,350,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000
	Ped Facs Enh Missing Links Crossing	\$ 750,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
	TIP Local Match/TMP Implementation	\$ 18,200,000	\$ 1,500,000	\$ 700,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000



Mapping

The mapping for CIP projects is now in a GIS-based electronic map [accessed here](#). All the map-able projects proposed for funding in the 2017–2022 are shown. If the icons are clicked, the project name, project number (referenced on the project sheets), department, funding source, and year with initial funding will be shown. For many projects the initial funding is currently showing as 2015 as projects have funding for planning and design before actual construction however, the construction timing may be in the future. Please consult the project sheets in each department section for project descriptions, phasing and funding information. Projects with funding earmarked for citywide or system improvements are not shown on the map. Ongoing refinement of the GIS-based map will result in greater clarity of project information.

Click here to access the Transportation Master Plan. <https://bouldercolorado.gov/transportation/tmp>

Click here to access the Airport Master Plan. <https://bouldercolorado.gov/airport/airport-master-plan>

Click here to access all master plans for the City of Boulder. <https://bouldercolorado.gov/planning/department-master-plans-and-strategic-plans>



Project Name: 19th St (Norwood to Sumac)

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/TRANSPORTATION **Subcommunity:** NORTH BOULDER
Project Number: 310TR154NG **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:** N/A

Project Description

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. Project phasing and description will be updated upon receipt of additional funds.

Project Phasing

2016: Planning: \$257,000
 2017: Construction - \$567,000 (\$390,000 from DRCOG TIP funding)
 2018: Construction - \$177,000

Public Process

This project was submitted to TAB and Council as a Transportation Alternatives Program (TAP) project prior to submitting it to CDOT for federal funding. Staff will hold public meetings and meet with adjacent property owners to acquire input for the project.

DET/Impact Fees

This project is not funded with development excise tax.

Interdepartmental and Interagency Collaboration

The project will be coordinated with other city departments, particularly P&DS as well as Utilities.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	257000.00	\$567,000	\$177,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$1,001,000

Additional Annual Operating and Maintenance

Additional Annual O&M: Minimal **Funding Source for O&M:**

Additional Annual O&M Description:
 May result in minimal incremental increases in ongoing maintenance



Project Name: 30th St and Colorado Bike/Ped Under

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/TRANSPORTATION **Subcommunity:** UNIVERSITY
Project Number: 310TD153NG **BVCP Area:** AREA I
CEAP Required: N/A **CEAP Status:** N/A

Project Description

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.

Project Phasing

2017 Construction: \$700,000
 2018 Construction: \$1,300,000

Public Process

This project was submitted to TAB and Council as a Transportation Improvement Project (TIP) prior to submitting it to DRCOG for federal funding. Staff will hold public meetings and meet with adjacent property owners to acquire input for the project.

DET/Impact Fees

A total of \$1,700,000 of this project will be funded by Transportation Development Excise Tax. The City will also receive \$3,950,000 in DRCOG TIP funding, with the remaining estimated project cost of \$1,450,000 being funded by sales tax revenue.

Interdepartmental and Interagency Collaboration

The project will be coordinated with other city departments, particularly P&DS as well as Utilities.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation Development	0.00	\$700,000	\$1,300,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$2,000,000

Additional Annual Operating and Maintenance

Additional Annual O&M: Yes **Funding Source for O&M:**
Additional Annual O&M Description:
 Funded by MUP Cap Maintenance



Project Name: 30th St and Colorado Bike/Ped Under

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/TRANSPORTATION **Subcommunity:** UNIVERSITY
Project Number: 310TR153NG **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:** N/A

Project Description

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.

Project Phasing

2015 - 2016: Planning: \$1,000,000
 2017: Acquisition/Construction: \$600,000 (\$600,000 from DRCOG TIP funding)
 2018: Construction: \$4,600,000 (\$3,350,000 from DRCOG TIP funding)

Public Process

This project was submitted to TAB and Council as a Transportation Improvement Project (TIP) prior to submitting it to DRCOG for federal funding. Staff will hold public meetings and meet with adjacent property owners to acquire input for the project.

DET/Impact Fees

\$1,700,000 of this project is funded with Transportation Development Excise Tax revenue. These funds are budgeted separately in the Transportation Development Fund.

Interdepartmental and Interagency Collaboration

The project will be coordinated with other city departments, particularly P&DS as well as Utilities.

Change From Past CIP

Added to CIP in 2017

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	997626.00	\$600,000	\$4,600,000	\$0	\$0	\$0	\$0
					Funding to Completion	\$0	\$0
					Future Unfunded	\$0	\$0

Total Funding Plan: \$6,197,626

Additional Annual Operating and Maintenance

Additional Annual O&M: Yes **Funding Source for O&M:**

Additional Annual O&M Description:

Funded by MUP Cap Maint



Project Name: Baseline Underpass Broadway to 28th

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR

Department: PW/TRANSPORTATION

Subcommunity: SOUTH BOULDER

Project Number: 310TR059NC

BVCP Area:

CEAP Required: Yes

CEAP Status: Completed in 2013

Project Description

This project constructs a grade separated crossing of Baseline Road east of Broadway (SH-93) and 10 foot-wide, multi-directional path connections to the sidewalks at the location of the current pedestrian crossing signal, and a connection to the Skunk Creek path to the south including improving the sidewalk along Broadway adjacent to the Basemar Center. The project also constructs multi-use path and bicycle lanes on Baseline Road in the vicinity of the underpass. The project will provide 20 bicycle parking spaces (10 of the spaces covered). The underpass serves the University of Colorado on the north side and connects to retail and housing on the south side.

This project meets the Transportation Master Plan focus area and objectives of implementing a balanced multimodal-based transportation system that is usable, connected, and integrated. The underpass replaces the pedestrian signal that was installed to address an accident problem in the short term until the underpass, or long term solution, could be funded and built. The project meets sustainability goals by providing transportation alternatives, and when people use transportation alternatives to vehicles, it reduces greenhouse gas emissions.

The city received Fast funding from CDOT for design of this project and additional CDOT funding for the resurfacing of Baseline in this area. The city also received federal funding in the last DRCOG TIP cycle for 2011 to 2014 funding years. Additional funding of \$700,000 is being added in 2017 to address construction cost inflation.

Project Phasing

Planning Phase - \$1,440,000

Acquisition - \$260,000

Construction - \$4,400,000

Public Process

This project was submitted to TAB and Council as a Transportation Improvement Project (TIP) prior to submitting it to DRCOG for federal funding.

DET/Impact Fees

This project is not funded with development excise tax.

Interdepartmental and Interagency Collaboration

N/A

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	5017704.99	\$700,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$5,717,705

Additional Annual Operating and Maintenance

Additional Annual O&M: Minimal

Funding Source for O&M:

Additional Annual O&M Description:

Minimal incremental increases



Project Name: BJ Traffic Signal Bluff St & 30th

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/TRANSPORTATION **Subcommunity:** CROSSROADS
Project Number: 310BJ002NC **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:** N/A

Project Description

This project includes fronting the design/construction cost of a new traffic signal at the intersection of proposed Bluff Street and 30th Street. This project was included in the list of Key Public Improvements for public funding as part of the Transit Village Area Plan (TVAP) – Implementation Plan, and is also a part of the TVAP Connections Plan and the Transportation Master Plan. This new traffic signal will facilitate transit and traffic movements, provide safe pedestrian crossings, and facilitate connections from surrounding neighborhoods and future redevelopment projects. Implementation is anticipated to be coordinated with adjoining private redevelopment. This project is anticipated to occur in 2017, in conjunction with future private redevelopment near this intersection.

Project Phasing

2017: Planning: \$25,000
 2017: Acquisition: \$0
 2017: Construction: \$203,000

Public Process

The development and adoption of the TV AP was the result of a 3-year planning process that included design charrettes, open houses and numerous meetings with property owners in the area. The plan was approved by the Planning Board and City Council.

DET/Impact Fees

This project is funded by Transportation Development Excise Tax, Transportation Use Tax and Construction Use Tax.

Interdepartmental and Interagency Collaboration

The TVAP and this project was a coordinated multi-department design effort between Planning, Public Works (Transportation and Utilities), Housing and Human Services, Parks and Recreation, Downtown and University Hill Management Divisions and Parking Services and other departments.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Bldr Junction Cap Imprvmt	0.00	\$228,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$228,000

Additional Annual Operating and Maintenance

Additional Annual O&M: Yes **Funding Source for O&M:**

Additional Annual O&M Description:

Project may result in minimal incremental increases in on-going maint



Project Name: BJ Traffic Signal Jct & Valmont

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/TRANSPORTATION **Subcommunity:** CROSSROADS
Project Number: 310BJ003NC **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

This project includes fronting the design/construction cost of a new traffic signal at the intersection of proposed Junction Place and Valmont Road. This project was included in the list of Key Public Improvements for public funding as part of the Transit Village Area Plan (TVAP) – Implementation Plan, and is also a part of the TVAP Connections Plan and the Transportation Master Plan. This new traffic signal will facilitate transit and traffic movements, provide safe pedestrian crossings, and facilitate connections from surrounding neighborhoods and future redevelopment projects. Implementation is anticipated to be coordinated with adjoining private redevelopment. This project is anticipated to occur in 2017, in conjunction with future private redevelopment near this intersection.

Project Phasing

2017: Planning: \$25,000
 2017: Acquisition: \$0
 2017: Construction: \$279,000

Public Process

The development and adoption of the TV AP was the result of a 3-year planning process that included design charrettes, open houses and numerous meetings with property owners in the area. The plan was approved by the Planning Board and City Council.

DET/Impact Fees

This project is funded by Transportation Development Excise Tax, Transportation Use Tax and Construction Use Tax.

Interdepartmental and Interagency Collaboration

The TVAP and this project was a coordinated multi-department design effort between Planning, Public Works (Transportation and Utilities), Housing and Human Services, Parks and Recreation, Downtown and University Hill Management Divisions and Parking Services and other departments.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Bldr Junction Cap Imprvmt	0.00	\$304,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$304,000

Additional Annual Operating and Maintenance

Additional Annual O&M: Yes **Funding Source for O&M:**

Additional Annual O&M Description:

Project may result in minimal incremental increases in on-going maint



Project Name: Bldr County/City Joint TIP Projects

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/TRANSPORTATION **Subcommunity:** GUNBARREL
Project Number: 310TD157NG **BVCP Area:** AREA I
CEAP Required: N/A **CEAP Status:** N/A

Project Description

In addition to the city TIP projects, the city is also a funding partner on two Boulder County TIP projects. This funding is identified in the 2016-2021 CIP under the Boulder County/City Joint TIP Projects line item. The total city contribution is \$289,000. The two projects are bike/pedestrian infrastructure improvements:

- 71st St Multi-Use Path (Winchester to Idylwild Trail) - \$151,000
- Williams Fork Trail Multi-Use Path (63rd to Twin Lakes) - \$138,000

Project Phasing

2018 Construction/Acquisition/Planning: \$151,000

Public Process

Public process will be led by Boulder County.

DET/Impact Fees

\$151,000 of funding for this joint project between the City of Boulder and Boulder County will come from Development Excise Tax.

Interdepartmental and Interagency Collaboration

This funding will be used on regionally significant projects that are of benefit to both the city and the county.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	0.00	\$0	\$151,000	\$0	\$0	\$0	\$0
Development							

Funding to Completion \$0
 Future Unfunded \$0

Total Funding Plan: \$151,000

Additional Annual Operating and Maintenance

Additional Annual O&M: N/A **Funding Source for O&M:**

Additional Annual O&M Description:

N/A



Project Name: Boulder Junction - Develop Coord

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/TRANSPORTATION **Subcommunity:** CROSSROADS
Project Number: 310BJ001OC **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:** N/A

Project Description

This project began in 2011, and funding is for ongoing planning and development coordination within the Phase I area of Boulder Junction, bounded by 30th Street, BNSF Railroad, Valmont Road and the Irrigation Ditch/Boulder Slough (south of Pearl Parkway). Over the life of this project, work included base mapping for the Phase I Boulder Junction area, conceptual design and cost estimate updates for identified and unidentified possible Key Public Improvements, engineering support, Pearl electrical undergrounding costs and coordination, and coordination of various public improvements with area provide development projects.

This project is necessary as part of implementation and coordination associated with the city-funded Key Public Improvements as part of the Transit Village Area Plan (TVAP)– Implementation Plan and related private development in the Boulder Junction area.

The transportation connections as part of the TVAP Connections Plan are also included in the Transportation Master Plan, and support both plan goals of creating a fine-grained, multimodal network of transportation connections that support a pedestrian friendly environment, create safe and convenient access to transit, and support necessary connections for area redevelopment.

Project Phasing

2017 Planning/Construction - \$75,000

Public Process

The development and adoption of the TVAP was the result of a 3-year planning process that included design charrettes, open houses and numerous meetings with property owners in the area. The plan was approved by the Planning Board and City Council.

DET/Impact Fees

Boulder Junction Development Coordination is funded by Transportation Development Excise Tax, Transportation Use Tax and Construction Use Tax.

Interdepartmental and Interagency Collaboration

The TVAP and this project was a coordinated multi-department design effort between Planning, Public Works (Transportation and Utilities), Housing and Human Services, Parks and Recreation, Downtown and University Hill Management Divisions and Parking Services and other departments.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Bldr Junction Cap Imprvmt	78051.00	\$75,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$153,051

Additional Annual Operating and Maintenance

Additional Annual O&M: None

Funding Source for O&M:

Additional Annual O&M Description:

N/A



Project Name: Boulder Slough Multiuse Path 30th

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/TRANSPORTATION **Subcommunity:** CROSSROADS
Project Number: 310TR151NG **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:** N/A

Project Description

Construction of a 10 foot wide multi-use path along the Boulder Slough from 30th Street to 3100 Pearl and a bicycle/pedestrian bridge crossing the Boulder Slough for bidirectional bicycle/pedestrian travel connecting to the multi-use path west and east of this project. Installation of signage and wayfinding with destinations and distances noted.

Project Phasing

2015: Planning: \$120,000
 2016: Acquisition: \$120,000
 2017: Construction: \$435,000 (\$288,000 from DRCOG TIP funding)

Public Process

This project was submitted to TAB and Council as a Transportation Improvement Project (TIP) prior to submitting it to DRCOG for federal funding. Staff will hold public meetings and meet with adjacent property owners to acquire input for the project.

DET/Impact Fees

This project is funded by a DRCOG grant (\$384,000), sales tax revenue (\$24,000) and Development Excise Tax (\$72,000 budgeted under project 310TD151NG in the Transportation Development Fund).

Interdepartmental and Interagency Collaboration

The project will be coordinated with other city departments, particularly P&DS as well as Utilities and Greenways.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	240000.00	\$435,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$675,000

Additional Annual Operating and Maintenance

Additional Annual O&M: Yes

Funding Source for O&M:

Additional Annual O&M Description:

Funded by MUP Cap Maint



Project Name: Boulder Slough Multiuse Path 30th

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/TRANSPORTATION **Subcommunity:** CENTRAL BOULDER
Project Number: 310TD151NG **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:** N/A

Project Description

This project consists of the construction of a 10 foot wide multi-use path along the Boulder Slough from 30th Street to 3100 Pearl and a bicycle/pedestrian bridge crossing the Boulder Slough for bidirectional bicycle/pedestrian travel connecting to the multi-use path west and east of this project. There will also be signage installed along with wayfinding with destinations and distances noted.

Project Phasing

2017: Construction: \$125,000

Public Process

This project was submitted to TAB and Council as a Transportation Improvement Project (TIP) prior to submitting it to DRCOG for federal funding. Staff will hold public meetings and meet with adjacent property owners to acquire input for the project.

DET/Impact Fees

\$72,000 of project funding will come from Development Excise Tax.

Interdepartmental and Interagency Collaboration

The project will be coordinated with other city departments, particularly P&DS as well as Utilities and Greenways.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation Development	0.00	\$125,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$125,000

Additional Annual Operating and Maintenance

Additional Annual O&M: Yes

Funding Source for O&M:

Additional Annual O&M Description:

Funded by MUP Cap Maint



Project Name: Broadway Recon Violet to 36

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/TRANSPORTATION	Subcommunity:	NORTH BOULDER
Project Number:	310TR152NG	BVCP Area:	AREA I
CEAP Required:	No	CEAP Status:	N/A

Project Description

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.

Project Phasing

2015 - 2017: Planning: \$1,750,000
 2017: Acquisition: \$1,250,000 (\$1,000,000 from DRCOG TIP funds)
 2018: Construction: \$5,575,000 (\$3,825,000 from DRCOG TIP funds)

Public Process

This project was submitted to TAB and Council as a Transportation Improvement Project (TIP) prior to submitting it to DRCOG for federal funding. Staff will hold public meetings and meet with adjacent property owners to acquire input for the project.

DET/Impact Fees

This project is not funded by Transportation Development Excise Tax.

Interdepartmental and Interagency Collaboration

The project will be coordinated with other city departments, particularly P&DS as well as Utilities and Greenways.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	1746648.00	\$1,250,000	\$5,575,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$8,571,648

Additional Annual Operating and Maintenance

Additional Annual O&M: No **Funding Source for O&M:**
Additional Annual O&M Description:
 N/A



Project Name: Deficient Street Light Pole Replace

Project at a Glance

Project Type:	CIP-CAPITAL MAINTENANCE		
Department:	PW/TRANSPORTATION	Subcommunity:	SYSTEM-WIDE
Project Number:	310TR001OC	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

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.

Project Phasing

2017 - 2022: Construction: \$749,000

Public Process

N/A

DET/Impact Fees

The Deficient Street Light Pole Replacement program is not funded by Development Excise Tax.

Interdepartmental and Interagency Collaboration

N/A

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	478825.00	\$265,000	\$0	\$121,000	\$121,000	\$121,000	\$121,000
					Funding to Completion \$0		
						Future Unfunded \$0	

Total Funding Plan: \$1,227,825

Additional Annual Operating and Maintenance

Additional Annual O&M: N/A

Funding Source for O&M:

Additional Annual O&M Description:

Funding will repair existing poles, lessening on-going costs



Project Name: Foothills & Colorado Underpass

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/TRANSPORTATION	Subcommunity:	CROSSROADS
Project Number:	310TR160NG	BVCP Area:	AREA I
CEAP Required:	No	CEAP Status:	N/A

Project Description

There is an existing bicycle/pedestrian overpass bridge just south of Colorado Avenue on Foothills Parkway/SH157. The overpass bridge was constructed and is maintained by CDOT and is in deteriorating condition with steep slopes. The overpass bridge does not meet other prevailing bicycle design or ADA design guidelines. This crossing facility acts as a barrier, rather than a connection between East Boulder and Central Boulder and the parks, businesses, academic and residential areas on either side of Foothills Parkway. The City of Boulder and the University of Colorado Boulder have been working together on the East Campus Master Plan Transportation Connections Plan. This project is included in the City of Boulder Transportation Master Plan. This project will construct a bicycle/pedestrian underpass, providing a grade separated crossing of Foothills Parkway/SH157 that is ADA compliant. The project will provide wayfinding/signage features, 20 bicycle parking spaces and connections to existing bicycle and pedestrian facilities on either side of the crossing.

Project Phasing

2017: Design - \$960,000 (\$560,000 from DRCOG TIP funding)
 2018: Construction - \$3,440,000 (\$2,640,000 from DRCOG TIP funding)

Public Process

This project was submitted to TAB and Council as a Transportation Improvement Project (TIP) prior to submitting it to DRCOG for federal funding. Staff will hold public meetings and meet with adjacent property owner to acquire input for the project.

DET/Impact Fees

The Foothills and Colorado Underpass project is not funded by Development Excise Tax.

Interdepartmental and Interagency Collaboration

The project will be coordinated with CDOT, other city departments and divisions, University of Colorado and the nearby 30th and Colorado Corridor Study.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	0.00	\$960,000	\$3,440,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$4,400,000

Additional Annual Operating and Maintenance

Additional Annual O&M: Yes

Funding Source for O&M:

Additional Annual O&M Description:

MUP Maint. will budget for O&M maintenance



Project Name: Major Capital Reconstruction

Project at a Glance

Project Type:	CIP-CAPITAL MAINTENANCE		
Department:	PW/TRANSPORTATION	Subcommunity:	SYSTEM-WIDE
Project Number:	310TR003OC	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

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 a result of the transportation tax that passed in November of 2013. The majority of the tax dollars were for maintenance of the city's existing transportation assets. This project will allow major assets to be replaced or repaired and the specific project identification process and prioritization started with the initial funding year of 2015. A portion of the 2015 budget, the first year of funding this category, was used to evaluate and prioritize the various capital repairs such as major street reconstruction, bridge crossings and retaining walls. This item is similar to the 2011 capital bond category titled "Replace substandard bridges, structures, signs and systems." 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 rise.

Project Phasing

2017-2022: Construction: \$4,800,000 (\$800,000 annually)

Public Process

Public processes will be identified as the individual projects are identified. If assets are replaced in the same capacity as they exist today, the public will be notified about the construction impacts. If there are substantive changes to the asset, a public process will be identified and completed.

DET/Impact Fees

The Major Capital Reconstruction program is not funded with Transportation Development Excise Tax.

Interdepartmental and Interagency Collaboration

Transportation will coordinate with the Utilities Department on upgrades, modifications or improvements to existing utilities as identified in each project; the Planning Department to coordinate with any adjacent planned development; and other impacted departments and agencies depending on the location of the repairs, such as the Parks Department, Greenways, Community Vitality, CU or CDOT if the project exists on their property or adjacent to their property.

Change From Past CIP

Added to CIP in 2017

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	1229163.00	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$6,029,163

Additional Annual Operating and Maintenance

Additional Annual O&M:	N/A	Funding Source for O&M:
Additional Annual O&M Description:		
Repair of existing assets will reduce on-going maintenance costs		



Project Name: Major Street Reconstruction

Project at a Glance

Project Type:	CIP-CAPITAL MAINTENANCE		
Department:	PW/TRANSPORTATION	Subcommunity:	SYSTEM-WIDE
Project Number:	310TR10050	BVCP Area:	AREA I
CEAP Required:	No	CEAP Status:	N/A

Project Description

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. Occasionally, some streets reach a state in which lower cost maintenance activities will no longer extend the useful service life of the street and it becomes necessary to completely reconstruct the street. The purpose of the Major Street Reconstruction budget is to target the worst performing pavement conditions and completely reconstruct not only the full pavement section, but also the sub-grade to make sure that the new pavement surface will provide a quality ride and condition for many years.

Project Phasing

2017-2022: Construction - \$2,304,000

Public Process

Public processes will be identified as the individual projects are identified. If assets are replaced in the same capacity as they exist today, the public will be notified about the construction impacts. If there are substantive changes to the asset, a public process will be identified and completed.

DET/Impact Fees

Major Street Reconstruction is not funded by Development Excise Tax.

Interdepartmental and Interagency Collaboration

Transportation will coordinate with the Utilities Department on upgrades, modifications or improvements to existing utilities as identified in each project; the Planning Department to coordinate with any adjacent planned development; and other impacted departments and agencies depending on the location of the repairs, such as the Parks Department, Greenways, Community Vitality, CU or CDOT if the project exists on their property or adjacent to their property.

Change From Past CIP

Added in 2017 CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	0.00	\$384,000	\$384,000	\$384,000	\$384,000	\$384,000	\$384,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$2,304,000

Additional Annual Operating and Maintenance

Additional Annual O&M: Reduced **Funding Source for O&M:**

Additional Annual O&M Description:
Repair of existing assets will reduce on-going maintenance costs.



Project Name: Misc Development Coordination

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/TRANSPORTATION

Subcommunity: SYSTEM-WIDE

Project Number: 310TD0040C

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status: N/A

Project Description

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 2017 and 2018, 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.

Project Phasing

2017-2022: Planning/Construction - \$300,000 (\$50,000 annually)

Public Process

Projects generally require coordination with adjacent neighborhoods and property owners.

DET/Impact Fees

The Miscellaneous Development Coordination program is funded by Transportation Development Excise Tax.

Interdepartmental and Interagency Collaboration

Close coordination with the Development Review work group and the Planning Department is required as this money is to fund improvements or connections adjacent to or required by development that are not the responsibility of the developer.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation Development	73745.00	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000

Funding to Completion \$0
Future Unfunded \$0

Total Funding Plan: \$373,745

Additional Annual Operating and Maintenance

Additional Annual O&M: Minimal

Funding Source for O&M:

Additional Annual O&M Description:

May result in minimal incremental increases in ongoing maintenance



Project Name: Multiuse Path Capital Maintenance

Project at a Glance

Project Type:	CIP-CAPITAL MAINTENANCE		
Department:	PW/TRANSPORTATION	Subcommunity:	SYSTEM-WIDE
Project Number:	310TR10040	BVCP Area:	AREA I
CEAP Required:	No	CEAP Status:	N/A

Project Description

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.

Project Phasing

2017-2022: Construction - \$2,382,000

Public Process

Public processes will be identified as the individual projects are identified. If assets are replaced in the same capacity as they exist today, the public will be notified about the construction impacts. If there are substantive changes to the asset, a public process will be identified and completed.

DET/Impact Fees

Multiuse Path Capital Maintenance is not funded by Development Excise Tax.

Interdepartmental and Interagency Collaboration

Transportation will coordinate with the Utilities Department on upgrades, modifications or improvements to existing utilities as identified in each project; the Planning Department to coordinate with any adjacent planned development; and other impacted departments and agencies depending on the location of the repairs, such as the Parks Department, Greenways, Community Vitality, CU or CDOT if the project exists on their property or adjacent to their property.

Change From Past CIP

Added in 2017 CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	0.00	\$397,000	\$397,000	\$397,000	\$397,000	\$397,000	\$397,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$2,382,000

Additional Annual Operating and Maintenance

Additional Annual O&M: Reduced **Funding Source for O&M:**

Additional Annual O&M Description:

Repair of existing assets will reduce on-going maintenance costs.



Project Name: Multiuse Path - Enhancements

Project at a Glance

Project Type:	CIP-NEW FACILITY/INFRASTRUCTUR		
Department:	PW/TRANSPORTATION	Subcommunity:	SYSTEM-WIDE
Project Number:	310TR6920C	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

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.

Project Phasing

2017-2022: Construction - \$1,350,000 (\$225,000 annually)

Public Process

None

DET/Impact Fees

This project is not funded by development excise tax.

Interdepartmental and Interagency Collaboration

This program is coordinated with other departments depending on the particular project. Currently projects are being coordinated with the Greenways program when a project is within the Greenways system, and the Open Space Department and the Parks Department if a project is on or adjacent to Open Space property or Parks property.

Change From Past CIP

Annual funding increased by \$100,000 due to 2013 Transportation Tax

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	470811.70	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000
					Funding to Completion \$0		
					Future Unfunded \$0		

Total Funding Plan: \$1,820,812

Additional Annual Operating and Maintenance

Additional Annual O&M: Yes

Funding Source for O&M:

Additional Annual O&M Description:

Funded by MUP Cap Maint



Project Name: Pavement Management Program

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/TRANSPORTATION	Subcommunity:	SYSTEM-WIDE
Project Number:	310TR10070	BVCP Area:	AREA I
CEAP Required:	N/A	CEAP Status:	N/A

Project Description

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.

Project Phasing

2017-2022: Construction - \$24,258,000

Public Process

Public processes will be identified as the individual projects are identified. If assets are replaced in the same capacity as they exist today, the public will be notified about the construction impacts. If there are substantive changes to the asset, a public process will be identified and completed.

DET/Impact Fees

Pavement Management Program is not funded by Development Excise Tax.

Interdepartmental and Interagency Collaboration

Transportation will coordinate with the Utilities Department on upgrades, modifications or improvements to existing utilities as identified in each project; the Planning Department to coordinate with any adjacent planned development; and other impacted departments and agencies depending on the location of the repairs, such as the Parks Department, Greenways, Community Vitality, CU or CDOT if the project exists on their property or adjacent to their property.

Change From Past CIP

Added in 2017 CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	0.00	\$4,043,000	\$4,043,000	\$4,043,000	\$4,043,000	\$4,043,000	\$4,043,000
						Funding to Completion \$0	Future Unfunded \$0
Total Funding Plan:	\$24,258,000						

Additional Annual Operating and Maintenance

Additional Annual O&M: Reduced **Funding Source for O&M:**

Additional Annual O&M Description:

Repair of existing assets will reduce on-going maintenance costs.



Project Name: Ped Facilities Repair, Replace, ADA

Project at a Glance

Project Type:	CIP-CAPITAL MAINTENANCE		
Department:	PW/TRANSPORTATION	Subcommunity:	SYSTEM-WIDE
Project Number:	310TR773OC	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

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.

Project Phasing

2017-2022 Construction: \$3,774,000 (\$629,000 annually)

Public Process

A neighborhood meeting is held for identified repair area owners in advance of the work starting and individual notices are mailed out yearly to the adjacent property owners.

DET/Impact Fees

This project is not funded by Development Excise Tax.

Interdepartmental and Interagency Collaboration

Coordination with the Parks Department – City Forester is required adjacent to city street trees to minimize impacts to the trees. Coordination with the city Utility Division regarding water meter location and relocation if possible. The work in the downtown area will be coordinated with Community Vitality and the Parks Department because they maintain various elements in this area.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	1110648.09	\$629,000	\$629,000	\$629,000	\$629,000	\$629,000	\$629,000
					Funding to Completion \$0		Future Unfunded \$0

Total Funding Plan: \$4,884,648

Additional Annual Operating and Maintenance

Additional Annual O&M:	None	Funding Source for O&M:
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Additional Annual O&M Description:

Adjacent property owners are generally responsible for sidewalk maint



Project Name: Ped Facs Enh Missing Links Crossing

Project at a Glance

Project Type:	CIP-NEW FACILITY/INFRASTRUCTUR		
Department:	PW/TRANSPORTATION	Subcommunity:	MULTIPLE SUBCOMMUNITIES
Project Number:	310TR112OC	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

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.

In 2016, the money will be spent at Pearl and 21st Street and Colorado and Monroe. Additional funds will be spent on Yarmouth Avenue sidewalk from 16th Street to 19th Street. This funding was increased by \$50,000 starting in 2014 due to the passage of the 2013 Transportation Tax. TAB approved the Proposed Prioritized list of Missing Sidewalk Links on May 10, 2004. TAB made a recommendation to support the use of the Pedestrian Crossing Treatment Installation Guidelines in 2005 and the document went to the City Council as an information item in 2006. These guidelines were updated in 2012.

Project Phasing

2017-2022 Construction: \$750,000 (\$125,000 annually)

Public Process

The public process for installing missing sidewalk links is ongoing and may involve a process for one or more locations per year. Staff works with neighborhoods and adjacent property owners on individual improvements.

DET/Impact Fees

This project is not funded by Transportation Development Excise Tax.

Interdepartmental and Interagency Collaboration

Coordination with the Parks Department – City Forester – is required when the missing links are impacting existing street trees and the Utilities Department to address any utility conflicts.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	293969.72	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,043,970

Additional Annual Operating and Maintenance

Additional Annual O&M: N/A **Funding Source for O&M:**

Additional Annual O&M Description:

Adjacent property owners are responsible for sidewalk maintenance.



Project Name: Quiet Zone Implementation

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/TRANSPORTATION	Subcommunity:	SYSTEM-WIDE
Project Number:	310TR171NG	BVCP Area:	AREA I
CEAP Required:	No	CEAP Status:	N/A

Project Description

The project implements railroad crossing Quiet Zone improvements along the Burlington Northern Santa Fe (BNSF) railroad corridor to address train horn noise impacting the Boulder community. There are a total of nine crossings, five within the City of Boulder and four adjacent to the city (see attached map). For the crossings adjacent to the city limits, it is anticipated that these Quiet Zones would be implemented in partnership with Boulder County. Work includes updating the city's Quiet Zone plan as needed to reflect any changes in federal Quiet Zone requirements and cost estimates since 2014, public outreach, design, field diagnostic review, Federal Railroad Administration (FRA) and Colorado Public Utilities Commission (PUC) application and approval processes, as well as construction of the necessary improvements to achieve quiet zone status for selected crossings. The crossings will be evaluated and prioritized based on feasibility, estimated benefit, and cost. Selected crossings will be implemented within the identified budget and a phasing plan developed for any remaining crossings.

Affected Area: Residents, employers/employees, and visitors within the City of Boulder as well as unincorporated Boulder County.

Project Phasing

2017 Construction: \$660,000 (\$528,000 from DRCOG TIP funding)
 2018 Construction: \$660,000 (\$528,000 from DRCOG TIP funding)

Public Process

The city, in collaboration with agency partners, will conduct a public outreach process beginning in mid-2016 through completion of the project in 2017/18. This process will focus on community members who live and work in proximity to the railroad crossings as well as general, city-wide outreach. The city will share information with the community regarding railroad quiet zones, including what is involved in creating quiet crossings such as physical improvements and costs. Public input will be used to help shape and prioritize the quiet zone crossing improvements for the Boulder community.

DET/Impact Fees

The Quiet Zone Implementation project is not funded with Transportation Development Excise Tax.

Interdepartmental and Interagency Collaboration

For the crossings adjacent to the city limits, it is anticipated that these Quiet Zones would be implemented in partnership with Boulder County.

Change From Past CIP

New in 2017

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	0.00	\$660,000	\$660,000	\$0	\$0	\$0	\$0
					Funding to Completion	\$0	
						Future Unfunded	\$0

Total Funding Plan: \$1,320,000

Additional Annual Operating and Maintenance

Additional Annual O&M:	No	Funding Source for O&M:
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Additional Annual O&M Description:

Maintained by BNSF



Project Name: Rehab Runway & Eastern Taxiway

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/TRANSPORTATION

Subcommunity: EAST BOULDER

Project Number: 310AP001NG

BVCP Area: AREA I

CEAP Required: N/A

CEAP Status: N/A

Project Description

Project includes subgrade stabilization, re-paving and re-painting of Runway 8/26 and eastern half of Taxiway Alpha. Design will begin in 2018 and construction is scheduled to begin in 2020. This project is funded 80% by grant proceeds.

Project Phasing

2018 Planning - \$435,000
 2020 Construction - \$4,500,000

Public Process

N/A

DET/Impact Fees

This project is not funded by Transportation Development Excise Tax.

Interdepartmental and Interagency Collaboration

N/A

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Airport	0.00	\$0	\$435,000	\$0	\$4,500,000	\$0	\$0
					Funding to Completion	\$0	\$0
					Future Unfunded	\$0	\$0

Total Funding Plan: \$4,935,000

Additional Annual Operating and Maintenance

Additional Annual O&M: None

Funding Source for O&M:

Additional Annual O&M Description:

N/A



Project Name: Sidewalk Maintenance

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/TRANSPORTATION

Subcommunity: SYSTEM-WIDE

Project Number: 310TR10080

BVCP Area: AREA I

CEAP Required: N/A

CEAP Status: N/A

Project Description

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.

Project Phasing

2017-2022: Construction - \$1,368,810

Public Process

Public processes will be identified as the individual projects are identified. If assets are replaced in the same capacity as they exist today, the public will be notified about the construction impacts. If there are substantive changes to the asset, a public process will be identified and completed.

DET/Impact Fees

Sidewalk maintenance is not funded by Development Excise Tax.

Interdepartmental and Interagency Collaboration

Transportation will coordinate with the Utilities Department on upgrades, modifications or improvements to existing utilities as identified in each project; the Planning Department to coordinate with any adjacent planned development; and other impacted departments and agencies depending on the location of the repairs, such as the Parks Department, Greenways, Community Vitality, CU or CDOT if the project exists on their property or adjacent to their property.

Change From Past CIP

Added in 2017 CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	0.00	\$228,135	\$228,135	\$228,135	\$228,135	\$228,135	\$228,135
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,368,810

Additional Annual Operating and Maintenance

Additional Annual O&M: N/A

Funding Source for O&M:

Additional Annual O&M Description:

Repair of existing assets will reduce on-going maintenance costs.



Project Name: Signal Maintenance & Upgrade

Project at a Glance

Project Type:	CIP-CAPITAL MAINTENANCE		
Department:	PW/TRANSPORTATION	Subcommunity:	SYSTEM-WIDE
Project Number:	310TD021OC	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

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 \$200,000 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.

The decision to install a new traffic signal is made on the basis of a signal warrant study, which uses data collected at the study location (peak period traffic volumes and delay, accident history) to determine if the benefits of a traffic signal at that location (potential for reduced side street delay during peak periods, increased pedestrian and cyclist access, potential for reduction in right-angle accidents) outweigh the downsides (increased main street delay, increased side street delay during off-peak periods, increased pedestrian and cyclist delay during off-peak periods, potential for increase in rear-end accidents). Some locations in Boulder that have been identified as potential future signal locations are studied periodically. Other locations are studied based on requests from the community. If there are multiple locations where new signals are desired, they are prioritized based on the magnitude of the identified benefit at each location.

Signalized intersections meet the Transportation Master Plan goals of helping to creating a fine-grained, multimodal network of transportation connections that support a bicycle and pedestrian friendly environment by providing better and safer access across busy streets at peak times.

This funding could also be used to reconstruct existing traffic signals, to provide operational benefits (such as adding double left-turns), or to address deficiencies (such as aging, corroded poles). The funding was last made available in 2014 and will be again in 2018.

Project Phasing

2018 Construction: \$200,000

Public Process

Locations for new signals are in part identified by requests from the community.

DET/Impact Fees

The Signal Maintenance & Upgrade program is funded by Transportation Development Excise Tax.

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation Development	200000.00	\$0	\$200,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$400,000

Additional Annual Operating and Maintenance

Additional Annual O&M:	Minimal	Funding Source for O&M:
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Additional Annual O&M Description:

Maintenance for new signal



Project Name: TIP Local Match TMP Implementation

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/TRANSPORTATION

Subcommunity: SYSTEM-WIDE

Project Number: 310TD0520G

BVCP Area: AREA I

CEAP Required: N/A

CEAP Status: N/A

Project Description

This ongoing funding is for the implementation of 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.

Project Phasing

2017-2022: Planning/Acquisition/Construction - \$2,880,000

Public Process

Public process, CEAP and design to be determined in relationship to specific projects.

DET/Impact Fees

This portion of the TIP Local Match/TMP Implementation program is funded by Transportation Development Excise Tax.

Interdepartmental and Interagency Collaboration

As the projects are identified and refined, necessary interdepartmental coordination will be identified.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation Development	330000.00	\$480,000	\$480,000	\$480,000	\$480,000	\$480,000	\$480,000

Funding to Completion \$0
Future Unfunded \$0

Total Funding Plan: \$3,210,000

Additional Annual Operating and Maintenance

Additional Annual O&M: N/A

Funding Source for O&M:

Additional Annual O&M Description:

N/A



Project Name: TIP Local Match/TMP Implementation

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/TRANSPORTATION **Subcommunity:** MULTIPLE SUBCOMMUNITIES
Project Number: 310TR052OG **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:** As appropriate

Project Description

This ongoing funding is for the implementation of 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. 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.

Project Phasing

2017-2022: Planning/Acquisition/Construction - \$18,200,000

Public Process

Public process, CEAP and design to be determined in relationship to specific projects.

DET/Impact Fees

This portion of the TIP Local Match/TMP Implementation program is not funded by Transportation Development Excist Tax.

Interdepartmental and Interagency Collaboration

As the projects are completed and refined, necessary interdepartmental coordination will be identified.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	522781.00	\$1,500,000	\$700,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$18,722,781

Additional Annual Operating and Maintenance

Additional Annual O&M: N/A

Funding Source for O&M:

Additional Annual O&M Description:

N/A



Project Name: Trans Corridor 30th & Colorado

Project at a Glance

Project Type: CIP-CAPITAL PLANNING STUDIES
Department: PW/TRANSPORTATION **Subcommunity:** MULTIPLE SUBCOMMUNITIES
Project Number: 310TR4790C **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:** N/A

Project Description

The city began a multi-departmental 30th Street and Colorado Avenue Corridor planning effort in 2016. As a result of the city-wide process that will result on 30th Street and on Colorado Avenue, transportation anticipates this funding in 2017 will be used to further study and complete a next level of planning to identify the individual projects and the associated costs and priorities so that the projects can be included and implemented in later capital project funding. This study will coordinate with the 30th and Colorado Underpass design and construction project.

Project Phasing

2017 Planning: \$100,000

Public Process

Consistent with primary corridor studies identified from the 2014 Transportation Master Plan, the 30th and Colorado corridor studies will undergo an intensive community engagement and public participation process. A key stakeholder will be CU Boulder.

DET/Impact Fees

Transportation Development Excise Tax is not funding this project.

Interdepartmental and Interagency Collaboration

Close coordination with Planning, Housing + Sustainability, Public Works – Utilities, and the Parks Department in order to have a comprehensive and coordinated plan between the departments and agencies for the development of the corridors. The University of Colorado at Boulder is a major property owner on both of these corridors and the proposed build out of the campus will require a connected transportation system between the various housing, classroom and office spaces that will exist in this area.

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	100000.00	\$100,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$200,000

Additional Annual Operating and Maintenance

Additional Annual O&M: N/A

Funding Source for O&M:

Additional Annual O&M Description:

N/A



Project Name: Valmont & 29th Hazard Elimination

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/TRANSPORTATION **Subcommunity:**
Project Number: 310TR478NC **BVCP Area:**
CEAP Required: No **CEAP Status:** N/A

Project Description

This project consists of signalizing the intersection of 29th Street and Valmont, the addition of left turn lanes in Valmont Road, and reconstructing the adjacent bike lanes and sidewalks. Implementation of the project elements requires extending the concrete box culvert to contain the adjacent irrigation ditch on the north side of Valmont. There was a bicyclist fatality at this intersection, and it is a difficult intersection of bicyclists and pedestrians to cross. The 29th Street corridor in this area is a desirable biking and walking facility as it has lower traffic volumes, connects residential land use to local services, and is a direct and preferred connection to the Goose Creek Greenway Trail. Signalized intersections meet the Transportation Master Plan goals of helping to create a fine-grained, multimodal network of transportation connections that supports a bicycle and pedestrian friendly environment by breaking down crossing barriers and providing better and safer access across busy streets at peak times. The investment policies of the TMP identify safety as one of the highest priority items to fund. The city received federal Hazard Elimination Program funding in a 2012 application to be funded fully in 2014. Additional funding of \$300,000 is being added in 2017 to address construction cost inflation.

Project Phasing

Design - \$300,000
 Construction - \$3,015,556

Public Process

N/A

DET/Impact Fees

This project is not funded with development excise tax.

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Transportation	2697594.63	\$300,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$2,997,595

Additional Annual Operating and Maintenance

Additional Annual O&M: Minimal **Funding Source for O&M:**

Additional Annual O&M Description:

Minimal incremental increases

Overview of Department Mission

The Utilities Division is responsible for the oversight of water, wastewater, and stormwater and flood services. The mission of the Utilities Division is to provide quality water services, as desired by the community, in a manner which emphasizes efficient management of fiscal and natural resources and protects human and environmental health. These services include:

- Wastewater Collection and Treatment
- Water Resources Management and Delivery
- Potable Water Treatment
- Water Quality Protection
- Flood/Emergency Planning, Management and Response
- Stormwater Collection and Conveyance
- Infrastructure Construction and Maintenance

The Utilities Division is also responsible for the Greenways Program, which is described following this section.

Funding Overview

Each of the city's three utility funds is established as a separate enterprise fund designed to finance and account for each utility's facilities and services. Funding for the Utilities Division capital improvement program (CIP) is derived primarily from monthly utility fees. Any revenue increases for 2017 will be reviewed by the Water Resources Advisory Board and considered by City Council. In addition to the monthly utility fees, significant revenue sources include Plant Investment Fees (PIFs) from new development or redevelopment and hydroelectric sales. Sales from monthly utility fees can be variable and reflect the overall growth of the service area and yearly weather fluctuations.

Other revenue sources include reimbursements 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). These revenues are project specific and are highly variable depending on the external agency's funding situation and priorities.

Projects may be funded by issuing revenue bonds with the debt service financed by general utility charges. For the years 2017–2022, it is anticipated that new bonds will be issued for the following projects:

Water

- Southern Water Supply Pipeline II (Carter Lake Pipeline) to improve water quality and system resiliency for source water supply to the Boulder Reservoir Water Treatment Facility and also waterline replacement (\$36M in 2018)
- Barker Dam Outlet (\$9M in 2020) to fund repairs to the outlet works system.

Wastewater

- Main Interceptor Realignment and Foothills/Baseline Trunk Sewer Replacement (\$14M in 2018)
- Waste Water Treatment Facility (WWTF) improvements (\$30M in 2020) to fund phosphorus treatment to meet Regulation 85 requirements, and rehabilitation of the primary clarifiers and digester complex.

Stormwater and Flood Management

- South Boulder Creek Improvements (\$25M in 2018) to fund improvements designed to mitigate flood hazards in the South Boulder Creek West Valley area.

The preliminary 2017 budget reflects the following revenue increases: 8 percent Water, 5 percent Wastewater, and 8 percent Stormwater/Flood Management. The following table summarizes the 2016 adopted revenue increase and proposed revenue increase projections for 2017–2019. The proposed 2017 increases are in bold.

Table 17–1 Proposed Utility Rate Increases

	2016	2017	2018	2019
Water	8%	8%	8%	8%
Wastewater	5%	5%	5%	7%
Stormwater/Flood Management	4%	8%	8%	7%



Current Focus for Capital Planning and Projects in 2017

Water Utility

- The Betasso Water Treatment Facility (WTF) will undergo significant capital investment to address pretreatment, residuals handling and asset management issues. Utilities has budgeted \$35M in 2016 to fund these improvements
- The Water Transmission line rehabilitation has been funded in 2017 and 2018 for identified pressure zone 3 large diameter pipes. Additional funds remaining from the Betasso bond can be used to fund this project.
- The Carter Lake Pipeline is a source water project identified to meet the following goals: improve water quality, operational security, and increase the reliability for year round water supply to the Boulder Reservoir Water Treatment Facility. The City of Boulder is one of several project partners. Utilities has budgeted approximately \$2M for the project's final design in 2017 and \$32M for construction in 2018. Approval of budget will allow the other project partners to proceed with 2017 final design configured to accommodate Boulder's participation in the project.

Wastewater Utility

- The wastewater interceptor realignment project (14,000 ft of sewer) will begin its CEAP in 2016 and design phases in 2017, depending on the selected final design construction may begin in 2018 or 2019. This project will address structural deterioration and alignment vulnerabilities of the current 42-inch diameter interceptor sewer. The estimated cost of the realignment is approximately \$20M.
- The lower Goose Creek sanitary trunk sewer replacement and rehabilitation project (7,500 ft of sewer) will begin its design phase in 2017 with construction anticipated in 2018. This project will replace an undersized trunk sewer system and rehabilitate structurally deteriorated trunk sewer sections. The cost of the project is estimated to at \$4M.
- The WWTF Influent Sewer Realignment project will be bid and constructed in 2017. This project will replace and realign the interceptor sewer where it enters the WWTF to address hydraulic deficiencies with the current alignment and address structural deterioration with the current interceptor sewer. This project is estimated at \$1M.
- The small diameter sewer rehabilitation program will continue in the downtown Boulder area and will result in the rehabilitation of all remaining clay and concrete sewers in the downtown area. This project will involve the lining of approximately 60,000 ft using cured-in-place-pipe (CIPP).



- The sanitary sewer condition assessment program is continuing in 2017 and will be complete by the end of 2018. The condition assessment program will result in the cleaning and inspection of all sanitary sewers in the City’s wastewater collection system.

Stormwater and Flood Management Utility

The focus for capital improvements for flood mitigation during the next 6 years is on Fourmile Canyon Creek, Wonderland Creek and South Boulder Creek. The Wonderland and Fourmile Canyon Creek improvements were identified in a 2009 flood mitigation plan. The South Boulder Creek Mitigation Plan was completed in 2015. The construction of the Wonderland Creek flood and greenways improvements between Foothills Highway and Winding Trail is anticipated to be completed at the end of 2017. Flood mitigation and path improvements along Fourmile Canyon Creek at 19th Street are anticipated to be bid in 2017. A preliminary design for the South Boulder Creek detention facility upstream of U.S. 36 is anticipated to be substantially complete in 2017. Flood mitigation plans are anticipated to be completed in 2016 for Bear Canyon Creek and in 2017 for Upper Goose Creek, Twomile Creek, Skunk Creek, King’s Gulch and Bluebell Creek. These plans will help identify future flood mitigation projects.

- The storm sewer condition assessment program will continue in 2017 with the cleaning and inspection of all storm sewers in the Upper Goose Creek and Twomile Canyon Creek drainage basins.
- Storm sewer rehabilitation will be performed in the University Hill and Downtown Boulder areas based on the results of the 2016 condition assessment program for those areas.

Project Highlights

Water Utility

Projects Expected to be Completed in 2016

- Betasso capital improvement project design
- Pressure zone 3 transmission line design
- Distribution main replacement program (4 miles)
- Barker Gravity Pipeline Repairs – ongoing repairs in order of priority and installation of pipe liner technology to evaluate as a test section for future rehabilitation
- Barker Dam Outlet Gate Test – ongoing plan to test/inspect gates as reservoir level allows
- Barker Dam Caretaker Residence – final completion Albion Dam



Barker Dam Gate Maintenance.



Assessment and Rehabilitation Alternatives Study

Priority Projects for 2017

- Betasso Water Treatment Facility construction
- Treated water transmission line construction
- Distribution main replacement program
- Source Water Facilities Rehabilitation program
- Carter Lake Pipeline final design, planning & land acquisition
- Betasso & Silver Lake Hydro
- Albion Dam permanent repairs to the temporary outlet repairs completed in 2014 as reservoir level allows
- Barker Gravity Pipeline annual repairs and start of 15 year rehabilitation program

Highlights of 2018–2022 Projects

- The Barker Gravity line, which conveys water from Barker Reservoir to Kossler Reservoir, is over 100 years old and in need of repair. Since purchasing the Barker system from PSCo in 2001, Utilities has primarily focused the maintenance on patching and grouting while more long term repair alternatives were evaluated. In early 2016, staff implemented a pilot program for a UV cured structural lining product that recently became available in the US for potable water applications. The pipeline will be rehabilitated (primarily structural lining) over a 15 year maintenance program at a cost of approximately \$20M not including the seven siphons. Utilities has budgeted approximately \$1,350,000 in the CIP annually for this project in addition to the yearly maintenance budget of \$250,000 for continued grouting and patching. Depending on the rehabilitation program progress after the first few years, staff may recommend a shorter overall duration for rehabilitation subject to other priorities and strategic planning efforts.
- Albion Dam is in need of repairs as a result of concrete deterioration. The work involves removing the deteriorating concrete and re-facing/ encapsulating the dam, as well as construction to extend the intake to the outlet works. Approximately \$3.4M has been allocated to this project in 2019
- The Barker Dam Outlet Works is in need of rehabilitation. This work involves an alternatives evaluation to investigate the value of micro tunneling the left abutment or replacement of the existing gates along with a pressurized structural pipe tunnel liner and downstream control/ energy dissipation valves.



- The City of Boulder is one of several project partners in the Carter Lake pipeline project. Utilities has budgeted approximately \$32M for the project's construction in 2018
- Development of the Wittemyer Ponds as surface water storage reservoirs is scheduled for 2021 at an estimated cost of \$ 4.9M. This project is dependent on the Gross Dam Environmental Pool Project (subject to Denver Water receiving all required approvals and permits) and will be confirmed by city staff in advance of the scheduled date of construction.
- The Betasso Water Treatment Facility will undergo significant capital investment to address pretreatment, residuals handling and asset management issues. Utilities has budgeted approximately \$30M in 2016 to fund these improvements
- The Boulder Reservoir Water Treatment Facility will undergo improvements to address aging filters, backup power, and residual handing issues. Utilities has budgeted approximately \$2M across the six year CIP budget to fund these improvements
- A new annual transmission line replacement program will focus on the rehabilitation of water pipelines larger than 12-inch diameter. The program is scheduled to start in 2020 with a \$2M budget.
- The Distribution main replacement program will focus on the rehabilitation of water lines 12-inch diameter and smaller. This is an annual program funded at approximately \$3.5M per year.



Betasso Water Treatment Facility.

Wastewater Utility

Projects Expected to be Completed in 2016

- IBM Lift Station Improvements construction project
- Wastewater Collection System Condition Assessment Program (ongoing)
- Wastewater Collection System Rehabilitation Program (ongoing)
- 2016 Wastewater Collection System Master Plan (WWCSMP)
- Installation of an additional 10 permanent collection system flow meters for a total of 19 meters.
- WWTF Influent Sewer Realignment
- Design of Lower Goose Creek Trunk Sewer Replacement & Rehabilitation
- WWTF Process Automation Design Improvements
- Substantial completion of the WWTF Nitrogen Upgrades Improvements Project



Priority Projects for 2017

- Main Interceptor Sewer Realignment Construction in 2017/2018
- Construction of Lower Goose Creek Trunk Sewer Replacement & Rehabilitation
- Wastewater Collection System Condition Assessment Program (ongoing)
- Wastewater Collection System Rehabilitation Program (ongoing)
- Wastewater Collection System Flow Monitoring (ongoing).

Highlights of 2018–2022 Projects

- In 2020, the WWTF will undergo a significant project to address several key issues including new regulatory requirements, and asset management needs. The regulatory component will require additional improvements to meet more stringent effluent phosphorus standards associated with CDPHE Regulation 85. The phosphorus component is estimated at \$17M.. The asset management components involve rehabilitation of the primary clarifiers, and the secondary digester cover. The primary clarifiers' rehabilitation is estimated at \$9M, and the secondary digester cover rehabilitation is estimated at \$2M. Utilities will fund this project with a bond, which is currently estimated at approximately \$30M. The 2016 WWCSMP has identified two additional Tier I high priority projects. One project involves the replacement of a trunk sewer along Foothills Hwy and Baseline Rd (\$3.5M), the second entails the replacement of a trunk sewer along Arapahoe Ave from Foothills to 63rd St. (\$12.6M)

Stormwater and Flood Management Utility

Projects Expected to be Completed in 2016

- Flood mapping studies are expected to be completed in 2016 and submitted to FEMA for Skunk, Kings Gulch and Bluebell Canyon Creeks
- A flood mitigation major drainageway plan is anticipated to be completed by the end of 2016 for Bear Canyon Creek
- The Urban Drainage and Flood Control District (UDFCD) also completes maintenance projects along the major drainageways. In 2016 this included sediment removal from Boulder Creek at Arapahoe and 38th and in South Boulder Creek under the McSorely Bridge. Plans are being discussed for vegetation and sediment removal along Boulder Creek from 47th Street to the Valmont Bridge in tandem with OSMP, along Bear Canyon Creek at Wildwood and Broadway, as well as along Wonderland Creek downstream of 47th Street. Other city funded maintenance projects included grading and armoring under the 6th Street bridge on Boulder Creek and a Goose Creek bank restoration near 49th Street. Sediment removal was also completed along



South Boulder Creek at Arapahoe Avenue as part of the FEMA declaration for storm events in May and June of 2015. These maintenance projects will help maintain conveyance capacity in these drainageways.

- The 2016 Stormwater Master Plan (SMP) will be completed in 2016 and will identify additional projects for the expansion of the storm sewer system. The recommendations in this 2016 SMP are additive to the recommendations in the 2007 SMP which focused on replacement of existing storm sewers.
- Storm sewer condition assessment program (ongoing)
- Storm sewer rehabilitation program (ongoing)



Wonderland Construction at Foothills.

Priority Projects for 2017

- Wonderland Creek Foothills to Winding Trail
- Fourmile Canyon Creek at 19th Street
- Storm sewer condition assessment program
- Storm Sewer rehabilitation program

Highlights of 2018–2022 Projects

- Flood mitigation plans were completed in 2015 for South Boulder Creek, Gregory Creek and Boulder Creek. A mitigation plan will be completed in 2016 for Bear Canyon Creek. CIP projects will be based on the recommendations of the mitigation planning studies. Funding is shown for construction of improvements to mitigate flood hazards along Fourmile Canyon Creek upstream of 19th Street and in the South Boulder Creek West Valley area in 2018. Funding is shown in 2019–2022 for improvements to Goose Creek between 19th Street and Folsom in conjunction with storm sewer improvements.
- Mitigation plans for Skunk, Bluebell, King’s Gulch, Twomile and Upper Goose Creeks will be initiated in 2016/2017 after mapping updates have been completed for these drainages. CIP projects will be based on the updated mapping and mitigation planning efforts.
- The 2016 SMP has identified ten new Tier 1 projects which are in addition to the four Tier I projects identified in the 2007 SMP. Of these fourteen Tier I projects, four projects pertain to the Upper Goose Creek drainage basin and these four projects have been identified as the highest priority projects of the 2007 and 2016 SMPs. The cost of the four upper Goose Creek projects is estimated at \$15M and will likely require bond funding. Additional lower cost Tier I projects may be brought forward for inclusion in this bond which may cause bonding to



increase up to \$20 M.

Board Action

The Water Resources Advisory Board held a public open house in March for members of the public and the board to discuss CIP projects. The preliminary 2017 Utilities budget and 2017–2022 CIP was presented to the WRAB on April 18, 2016 as a discussion item. The WRAB hosted a public hearing and continued their discussion of the preliminary 2017 Utilities budget and 2017–2022 CIP on May 16, 2016. At the June 20, 2016 meeting WRAB hosted a public hearing during which the board voted 4–0 to recommend approval of the proposed CIP.

Guiding Principles and Project Prioritization

CIP Guiding Principles

The proposed Utilities Division CIP is consistent with the CIP guiding principles with the primary focus on sustaining and improving existing infrastructure systems, increasing efficiency and planning for adequate funding to care for essential systems. The projects identified in the 2017–2022 CIP are intended to implement these guiding principles and are consistent with the department master plans identified below.

In 2002 it was decided to develop an overarching master plan for each of the city’s three utilities. More detailed plans have been developed for major functional areas. Recent master plans include recommendations for CIP projects over a 20–year time period. The project recommendations consider the prioritization listed below as well as information from the Utilities Division asset management system. This system includes replacement cost, useful life and condition rating which have been documented for each significant utility asset. This information informs the six–year CIP. Current Utilities Division master plans include:

Water

- Source Water Master Plan – 2009
- Treated Water Master Plan (TWMP) – 2011
- Water Utility Master Plan (WUMP) – 2011

Wastewater

- Wastewater Collection System Master Plan (WWCSMP) – 2009
- 2016 WWCSMP in progress



- Wastewater Utility Master Plan (WWUMP) – 2010

Stormwater/ Flood Management

- Stormwater Master Plan (SMP) –2007
- 2016 SMP in progress
- Comprehensive Flood and Stormwater (CFS) Master Plan – 2004
- Various individual Drainageway mitigation plans

Prioritization

The overall program and funding priorities are reflected in the timing of projects over the six-year CIP time period. In addition to master plan and mitigation plan recommendations, the following factors were considered in determining the overall program and funding priorities:

Water and Wastewater

- Reliability of water and wastewater collection, delivery and treatment
- Water quality and other environmental regulations
- Worker health and safety
- Opportunity to collaborate with other city projects, such as transportation
- Opportunity to collaborate with other utility providers to leverage funds or obtain federal or state grants
- Potential for operation and maintenance cost savings
- Accommodating new growth and development.

Stormwater and Flood Management

- Life safety (high hazard) mitigation
- Flood emergency response capability
- Critical facility (vulnerable population) hazard mitigation
- Property damage mitigation
- Collaboration with other Greenways Program Objectives
- Potential for operation and maintenance cost savings
- Accommodating new growth and development
- Opportunities to leverage outside funding.



Within current appropriations all projects proposed have sufficient funds for ongoing operations and maintenance, and 90 percent of the Water Utility and Wastewater Utility projects are focused on maintaining or improving existing assets. Other Water and Wastewater Utility projects are intended to construct facilities required to comply with new regulations. In the Stormwater and Flood Management Utility, the majority of the project funding is focused on life safety and critical facility hazard mitigation issues.

Projects Not in Master Plans

Most Utilities Division projects in the 2017–2022 CIP have been previously identified in associated master plans. However, several projects have been added based on information identified from the September 2013 flood disaster.

Operation and Maintenance Impacts

The majority of the utilities expenditures are for rehabilitating and improving the 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, associated expense 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

The condition assessment program of the sewer system serves as a supplement to the City's ongoing maintenance efforts because it will result 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. The rehabilitation program also reduces the maintenance load by preventing root growth in sewers which have historically required repetitive root cutting. There are no expansions or new facilities planned for the sanitary sewer system that would require additional new maintenance activities.



Stormwater and Flood Management Utility

Flood and greenways improvements along Wonderland Creek between Foothills Parkway and Winding Trail will be completed at the end of 2017. The flood mitigation improvements are an enhancement to an existing channel which is currently being maintained 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 2018. Improvements to the Goose Creek channel is also considered an enhancement. However, the existing channel is located on private property. Easements will be acquired prior to constructing channel improvements and the city will be responsible for on-going channel maintenance following completion of the project, which is estimated to be in 2023.

The condition assessment program of the sewer system serves as a supplement to the City's ongoing maintenance efforts because it results 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 heavy debris loads on runoff. The rehabilitation program also reduces the maintenance load by preventing root growth and addressing point repairs which maintenance staff would otherwise address. The upper Goose Creek storm sewer expansion will create new storm sewers that will require routine cleaning and inspection and are a new work load for the maintenance department.

Projects not Previously Identified in the CIP

The following new projects have been identified in the 6-year CIP:

Water Utility

- Green Lake 2 Dam
- Skyscraper Dam
- Automated Meter Reading.
- Water Facility Equipment Replacement Fund

Wastewater Utility

- There are four new Tier I projects in the 2016 WWCSMP:
 - Main Interceptor Realignment (\$20M)



- Lower Goose Creek Trunk Sewer Replacement (\$4M)
- Foothills Hwy and Baseline Rd Trunk Sewer Replacement (\$3.5M)
- Arapahoe Ave Trunk Sewer Replacement (\$12.6M)

Stormwater and Flood Management Utility

- New projects identified in the 2015 mitigation plans for Gregory Creek and Boulder Creek.
- Improvements to the Goose Creek Channel between 19th Street and Folsom in conjunction with storm sewer improvements in this area.
- There are ten new Tier I projects in the 2016 SMP
 - Upper Goose Creek – LI 1 (\$1.6M)
 - Upper Goose Creek – LI 2 (\$2.4M)
 - Upper Goose Creek – LI 3 (\$1.0M)
 - Wonderland Creek – LI 1 (\$0.4M)
 - Elmer’s Twomile Creek – LI 2 (\$3.9M)
 - Middle Boulder Creek – LI 2 (\$3.2M)
 - Dry Creek No. 2 – LI 1 (\$1.9M)
 - Dry Creek No. 2 – LI 3 (\$6.5M)
 - Bear Canyon Creek – LI 3 (\$2.3M)
 - Bear Canyon Creek – LI 5 (\$0.3M)

Deferred, Eliminated, or Changed Projects

Water Utility

- Funding for the Betasso Water Treatment Facility (BWTF) was increased to \$30M in 2016 to combine various facility upgrades and to take advantage of a favorable bond rate climate. Previously, the Betasso Water Treatment Facility was funded at \$12M in 2016 and \$14M in 2026.
- The 2020 improvement project at Boulder Reservoir has been spread out over several years to allow plant staff to tackle the improvements in smaller components.
- Funding for zone 3 transmission line replacement project has been identified in 2017 and 2018 after 30% design completion in 2016.

Wastewater Utility

- There were eleven Tier projects from the 2009 WWCSMP in the CIP which have been eliminated and replaced with the aforementioned four new Tier I projects from the 2016 WWCSMP.



Stormwater & Flood Management Utility

- Funding was shifted from Bluebell/King’s Gulch to Gregory Creek in 2018 to address improvements identified in the mitigation plan.
- A portion of the funding previously shown in 2017 and 2018 (\$3.5M) for Boulder Creek is shown to be moved in this year’s CIP to Fourmile Canyon Creek in order to complete these projects sooner.
- Funding that was shown in last year’s CIP for Fourmile Canyon Creek in 2019–2021 is proposed to be moved to Goose Creek to coordinate with localized drainage improvements between 19th Street and Folsom.

Unfunded Projects and Emerging Needs

The following unfunded projects have been identified:

Water Utility

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 other 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 some mechanical and electrical equipment at the Betasso Water Treatment Facility. Betasso is the city’s primary Water Treatment Facility and has deteriorated during almost 50 years of continuous operation despite on-going maintenance and rehabilitation. These issues, combined with inherent deficiencies in certain treatment processes, are the reasons that large capital funding is recommended in 2016–2017.

Wastewater Utility

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.

Stormwater/ Flood Management

Based on approved flood mitigation plans and estimates for Bear, Skunk, Twomile, Upper Goose and Sunshine Creeks, \$160 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 80 to 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 the ~25% that has been inspected so far indicates that increased funding for storm sewer rehabilitation will be necessary.

The Utilities Division has developed and maintains a 20-year CIP and associated financial plan. Large Utilities Division projects require many years for planning and a longer term horizon is needed to capture the time period required for overall project implementation. A 20-year plan provides a basis for longer term financial planning that is needed to support decision making regarding project timing, issuance and retirement of revenue bonds and rate increases. The above mentioned projects are indicated in the 20-year CIP.



Overview of Greenways Department Mission

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 in order to meet the various objectives of the Greenways Program. The Greenways CIP also looks to leverage funds with outside agencies in order 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.

Funding Overview

The total 2017 Greenways capital budget is \$320,441, with \$105,000 in the operating budget. Greenways projects are funded from the Transportation Fund, Stormwater and Flood Management Utility Fund, and the Lottery Fund. Annual funding distribution for the Greenways Capital Program for 2016 is as follows:

- Transportation \$ 97,500
- Flood Utility \$ 97,500
- Lottery Fund \$125,441

Historically the Lottery contribution to the Greenways Program has been \$150,000 per year. As a result of a projected reduction of the city's allocation of Lottery funds, starting in 2015, the Lottery contribution to Greenways is expected to be reduced to \$125,441 (based on Greenways receiving 15% of the city's funding allocation, with a projection of total Lottery proceeds being \$836,275). The city's allocation of Lottery funds in 2015 exceeded the projected amount, therefore a budget adjustment will be made in the amount of \$26,949 to reflect the increase.

Current Focus for Capital Planning and Projects in 2017

The focus of the 2017–2022 Greenways CIP is on flood mitigation, bicycle and pedestrian multi-



use paths and underpasses, and habitat and water quality improvements along the Fourmile and Wonderland Creek corridors. These improvements are also being coordinated with the development of the Violet Park site. In 2020–2022, funding for these types of improvements is shown for Bear Canyon Creek and Skunk Creek in anticipation of future major drainageway improvements along these corridors. For more information about the timing and details of these projects, please see the Utilities –Stormwater/Flood Overview section above.

In addition to these, possible habitat restoration projects during the next few years include:

- Habitat improvements along Boulder Creek in conjunction with flood mitigation maintenance (sediment removal)
- Habitat improvements along Fourmile Canyon Creek upstream of Broadway in conjunction with flood mitigation maintenance (sediment removal)
- Habitat improvements at the confluence of Bear Creek and Boulder Creek at Foothills Community Hospital in conjunction with sediment removal
- Dry Creek habitat improvements through Flatirons Golf Course
- Goose Creek, railroad to 47th Street tree plantings
- Fish Passage enhancement projects in association with Fishing is Fun grants
- South Boulder Creek minimum stream flow
- Removal of Russian Olive trees east of 75th Street along Boulder Creek

These projects will be prioritized based on their ability to meet multiple Greenways objectives and to leverage outside funding.

Board Action

The Greenways Advisory Committee met on May 17, 2016 and recommended approval 5–0 of the 2017–2022 Greenways Program CIP to Planning Board and City Council.

Guiding Principles and Project Prioritization

CIP Guiding Principles

Greenways projects address many of the CIP guiding principles. Greenways projects are identified in multiple master plans and meet the community sustainability goals. Most of the Greenways projects leverage outside or interdepartmental funding. Greenways habitat improvements seek to be sustainable and are intended to reduce the future maintenance required.



The Greenways CIP has been developed within the context of and is consistent with the Boulder Valley Comprehensive Plan (BVCP), the Transportation Master Plan (TMP), the major drainageway flood mitigation plans, the Comprehensive Flood and Stormwater Master Plan and the Greenways Master Plan. The Greenways Master Plan was updated in 2011 to reflect improvements that had been completed, and adopted changes that have been made in other master plans, city policies and ordinances that affect the Greenways Program since the last Master Plan update in 2001.

Prioritization

Many of the Greenways projects shown in the CIP are being designed and constructed in coordination with major flood or transportation improvements. The Greenways funding associated with these projects focuses on habitat restoration, water quality improvements and trail connections. In addition to leveraging funding with the Transportation and Flood Utilities budgets, funding for Greenways projects is also available through the Urban Drainage and Flood Control District and Federal Transportation funds.

Projects not in Master Plans

It should be noted that the city experienced a major flood in September 2013 that resulted in extensive flooding along most of the city's major drainageways. Following the flood, additional funds have been allocated in the Flood Utility CIP to reflect an increased interest in pursuing flood mitigation efforts along the city's major drainageways. As a result of updated mapping and the September 2013 flood, flood mitigation plans were initiated for Gregory Creek, Bear Canyon Creek and Boulder Creek to identify economically feasible improvement projects. Flood mitigation plans will be initiated in 2016 for Upper Goose Creek and Twomile Canyon Creek, and Skunk, King's Gulch and Bluebell Creeks after completion of flood mapping updates on these drainageways. Results from these flood mitigation plans will inform future capital improvements. Continued evaluation of potential improvement may result in additional changes to the Flood Utility and Greenways CIP in upcoming years.

Projects not Previously Identified in the CIP

None

Operation 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

Utilities



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.

Deferred, Eliminated, or Changed Projects

None

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.

Table 17-2: 2017-2022 Funding Summary By Department

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PW/STORMWATER & FLOOD UTILITY	Department Total	\$ 60,424,953	\$ 6,395,550	\$ 32,532,222	\$ 4,054,308	\$ 4,533,357	\$ 8,507,738	\$ 4,401,778
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 24,564,610	\$ 4,476,850	\$ 5,963,722	\$ 2,752,308	\$ 2,542,657	\$ 6,507,521	\$ 2,321,552
	Boulder Creek Flood Mitigation	\$ 1,250,000	\$ -	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -
	Fourmile - Upstream of Upland Ave	\$ 5,000,000	\$ 3,000,000	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -
	Goose Creek 19th to Folsom	\$ 4,050,000	\$ -	\$ -	\$ 1,500,000	\$ 1,250,000	\$ 500,000	\$ 800,000
	Greenways Program - Flood fund	\$ 626,273	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 97,500	\$ 138,773
	Greenways Program - Lottery Fund	\$ 906,402	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067	\$ 151,067
	Gregory Creek Flood Mitigation	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -
	Local Drainage Improvements	\$ 5,237,645	\$ 759,283	\$ 789,655	\$ 821,241	\$ 854,090	\$ 986,949	\$ 1,026,427
	Skunk Creek Flood Mitigation	\$ 700,000	\$ 200,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
	Stormwater Quality Improvements	\$ 1,119,675	\$ 169,000	\$ 175,500	\$ 182,500	\$ 190,000	\$ 197,390	\$ 205,285
	SW MGMT - Bear Canyon Creek	\$ 324,846	\$ -	\$ -	\$ -	\$ -	\$ 324,846	\$ -
	SW MGMT - Middle Boulder Creek	\$ 3,862,873	\$ -	\$ -	\$ -	\$ -	\$ 3,862,873	\$ -
	SW MGMT - Wonderland Creek	\$ 386,896	\$ -	\$ -	\$ -	\$ -	\$ 386,896	\$ -
	Twomile Canyon Creek	\$ 600,000	\$ 100,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 5,946,402	\$ 618,700	\$ 643,500	\$ 669,000	\$ 1,330,700	\$ 1,315,932	\$ 1,368,570
	Storm Sewer Rehabilitation	\$ 2,852,651	\$ 281,200	\$ 292,500	\$ 304,000	\$ 632,700	\$ 657,966	\$ 684,285
	Transportation Coordination	\$ 3,028,751	\$ 337,500	\$ 351,000	\$ 365,000	\$ 633,000	\$ 657,966	\$ 684,285
	Utility Billing Computer System	\$ 65,000	\$ -	\$ -	\$ -	\$ 65,000	\$ -	\$ -
CIP-LAND ACQUISITION	Subtotal	\$ 3,838,941	\$ 550,000	\$ 600,000	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656
	Preflood Property Acquisition	\$ 3,838,941	\$ 550,000	\$ 600,000	\$ 633,000	\$ 660,000	\$ 684,285	\$ 711,656
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 26,075,000	\$ 750,000	\$ 25,325,000	\$ -	\$ -	\$ -	\$ -
	South Boulder Creek Phase I	\$ 26,075,000	\$ 750,000	\$ 25,325,000	\$ -	\$ -	\$ -	\$ -

Table 17-2: 2017-2022 Funding Summary By Department (Cont.)

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PW/WASTEWATER UTILITY	Department Total	\$ 81,496,482	\$ 8,168,512	\$ 19,020,491	\$ 8,850,831	\$ 33,342,880	\$ 6,630,441	\$ 5,483,327
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 30,961,474	\$ 5,400,000	\$ 4,569,500	\$ 3,330,117	\$ 17,375,000	\$ 136,857	\$ 150,000
	Foothills & Baseline Trunk Swr Repl	\$ 3,497,000	\$ -	\$ 3,497,000	\$ -	\$ -	\$ -	\$ -
	Lower Goose Creek Trunk Repl	\$ 4,000,000	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Wastewater Treatment Facility Pumps	\$ 300,000	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000
	WWTF Activated Sludge	\$ 189,798	\$ -	\$ -	\$ 189,798	\$ -	\$ -	\$ -
	WWTF Electrical	\$ 1,610,000	\$ 1,400,000	\$ 210,000	\$ -	\$ -	\$ -	\$ -
	WWTF Instrumentation/Control	\$ 1,265,319	\$ -	\$ -	\$ 1,265,319	\$ -	\$ -	\$ -
	WWTF Permit Improvements	\$ 20,099,357	\$ -	\$ 862,500	\$ 1,725,000	\$ 17,375,000	\$ 136,857	\$ -
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 50,535,008	\$ 2,768,512	\$ 14,450,991	\$ 5,520,714	\$ 15,967,880	\$ 6,493,584	\$ 5,333,327
	Collection System Monitoring	\$ 900,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
	Condition Assessment Program	\$ 3,514,976	\$ -	\$ 648,960	\$ 674,918	\$ 701,915	\$ 729,992	\$ 759,191
	Interceptor Sewer Rehabilitation	\$ 10,184,920	\$ -	\$ 10,184,920	\$ -	\$ -	\$ -	\$ -
	Sanitary Sewer Manhole Rehabilitati	\$ 2,297,591	\$ 224,973	\$ 233,972	\$ 243,331	\$ 253,064	\$ 657,966	\$ 684,285
	Sanitary Sewer Rehabilitation	\$ 17,901,183	\$ 1,743,539	\$ 2,983,139	\$ 3,102,465	\$ 3,226,563	\$ 3,355,626	\$ 3,489,851
	Utility Billing Computer System	\$ 65,000	\$ -	\$ -	\$ -	\$ 65,000	\$ -	\$ -
	WWTF Cogeneration	\$ 584,481	\$ 400,000	\$ -	\$ -	\$ 184,481	\$ -	\$ -
	WWTF Digester Cleaning	\$ 136,857	\$ -	\$ -	\$ -	\$ 136,857	\$ -	\$ -
	WWTF Digester Complex	\$ 2,200,000	\$ -	\$ -	\$ 200,000	\$ 2,000,000	\$ -	\$ -
	WWTF Primary Clarifiers	\$ 11,250,000	\$ -	\$ -	\$ 900,000	\$ 9,000,000	\$ 1,350,000	\$ -
	WWTF Rehabilitation	\$ 1,500,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PW/WATER UTILITY	Department Total	\$ 111,396,253	\$ 9,330,215	\$ 39,384,442	\$ 11,718,449	\$ 20,969,225	\$ 14,365,393	\$ 15,628,529
CIP-CAPITAL ENHANCEMENT	Subtotal	\$ 52,791,612	\$ 2,625,000	\$ 32,449,040	\$ 1,668,882	\$ 9,148,194	\$ 5,413,622	\$ 1,486,874
	Barker Dam and Reservoir	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Barker Dam Outlet	\$ 9,466,060	\$ 175,000	\$ -	\$ 835,551	\$ 8,455,509	\$ -	\$ -
	Devil's Thumb Storage Tank	\$ 1,486,874	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,486,874
	Green Lake 2 Dam	\$ 561,773	\$ -	\$ -	\$ -	\$ 75,000	\$ 486,773	\$ -
	Lakewood Dam	\$ 124,707	\$ -	\$ 124,707	\$ -	\$ -	\$ -	\$ -
	Lakewood Hydroelectric/PRV	\$ 300,000	\$ -	\$ -	\$ 300,000	\$ -	\$ -	\$ -
	NCWCD Conveyance - Carter Lake Pipe	\$ 34,200,000	\$ 2,150,000	\$ 32,050,000	\$ -	\$ -	\$ -	\$ -
	Pearl Street Hydro/PRV Facility	\$ 267,664	\$ -	\$ 24,333	\$ 243,331	\$ -	\$ -	\$ -
	Source Water Monitoring/Protection	\$ 300,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -
	Utility Billing Computer System	\$ 125,000	\$ -	\$ -	\$ -	\$ 125,000	\$ -	\$ -
	Water System Security/Quality Imprv	\$ 390,000	\$ 150,000	\$ 150,000	\$ 90,000	\$ -	\$ -	\$ -
	Wittemyer Ponds	\$ 5,519,534	\$ -	\$ -	\$ 100,000	\$ 492,685	\$ 4,926,849	\$ -

Table 17-2: 2017-2022 Funding Summary By Department (Cont.)

		Estimated Total Cost	2017 Recommended	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
PW/WATER UTILITY (Cont.)	Department Total	\$ 111,396,253	\$ 9,330,215	\$ 39,384,442	\$ 11,718,449	\$ 20,969,225	\$ 14,365,393	\$ 15,628,529
CIP-CAPITAL MAINTENANCE	Subtotal	\$ 55,754,641	\$ 6,705,215	\$ 6,885,402	\$ 9,799,567	\$ 9,321,031	\$ 8,951,771	\$ 14,091,655
	Albion Dam	\$ 3,757,997	\$ -	\$ 341,636	\$ 3,416,361	\$ -	\$ -	\$ -
	Barker Gravity Pipeline Repair	\$ 11,373,144	\$ 1,559,811	\$ 1,622,204	\$ 1,687,092	\$ 2,083,559	\$ 2,166,901	\$ 2,253,577
	Barker-Kossler Penstock Repair	\$ 116,986	\$ 116,986	\$ -	\$ -	\$ -	\$ -	\$ -
	Betasso Hydroelectric / PRF	\$ 880,000	\$ 400,000	\$ 480,000	\$ -	\$ -	\$ -	\$ -
	Betasso Storage Tank Rehabilitation	\$ 292,465	\$ 292,465	\$ -	\$ -	\$ -	\$ -	\$ -
	Boulder Canyon Hydro	\$ 90,000	\$ -	\$ 90,000	\$ -	\$ -	\$ -	\$ -
	Boulder Reservoir	\$ 118,434	\$ -	\$ -	\$ -	\$ 118,434	\$ -	\$ -
	Distribution Waterline Replacement	\$ 23,129,706	\$ 3,487,078	\$ 3,626,562	\$ 3,771,624	\$ 3,922,489	\$ 4,079,389	\$ 4,242,564
	Farmer's Ditch	\$ 108,160	\$ -	\$ -	\$ 108,160	\$ -	\$ -	\$ -
	Goose Lake Dam	\$ 4,942,726	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ 4,867,726
	Hydro Facilities Rehab Program	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
	Island Lake Dam	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -
	Kossler Dam	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
	Lakewood Pipeline	\$ 316,330	\$ -	\$ -	\$ 316,330	\$ -	\$ -	\$ -
	Reservoir Water Treatment Facility	\$ 1,000,000	\$ 200,000	\$ 200,000	\$ -	\$ 600,000	\$ -	\$ -
	Silver Lake Dam	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -
	Silver Lake Hydroelectric/PRV	\$ 250,000	\$ 50,000	\$ -	\$ 200,000	\$ -	\$ -	\$ -
	Skyscraper Dam	\$ 171,071	\$ -	\$ -	\$ -	\$ -	\$ 171,071	\$ -
	Source Pumping and Hydro Rehab	\$ 1,503,941	\$ 150,000	\$ 150,000	\$ 150,000	\$ 343,472	\$ 351,210	\$ 359,259
	Sunshine Hydroelectric/PRV Facility	\$ 271,875	\$ 271,875	\$ -	\$ -	\$ -	\$ -	\$ -
	Water Treatment Equipment Replacemnt	\$ 529,000	\$ 127,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 50,000	\$ 52,000
	Watershed Improvements	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -
	Zone 1 Transmission Pipes	\$ 1,955,998	\$ -	\$ -	\$ -	\$ 626,601	\$ 651,665	\$ 677,732
	Zone 2 Transmission Pipes	\$ 2,837,585	\$ -	\$ -	\$ -	\$ 909,016	\$ 945,377	\$ 983,192
	Zone 3 Transmission Pipes	\$ 1,459,223	\$ -	\$ -	\$ -	\$ 467,460	\$ 486,158	\$ 505,605
CIP-NEW FACILITY/INFRASTRUCTUR	Subtotal	\$ 2,850,000	\$ -	\$ 50,000	\$ 250,000	\$ 2,500,000	\$ -	\$ 50,000
	Barker Dam Hydroelectric	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000
	Carter Lake Hydroelectric	\$ 2,800,000	\$ -	\$ 50,000	\$ 250,000	\$ 2,500,000	\$ -	\$ -



Mapping

The mapping for CIP projects is now in a GIS-based electronic map [accessed here](#). All the map-able projects proposed for funding in the 2017–2022 are shown. If the icons are clicked, the project name, project number (referenced on the project sheets), department, funding source, and year with initial funding will be shown. For many projects the initial funding is currently showing as 2015 as projects have funding for planning and design before actual construction however, the construction timing may be in the future. Please consult the project sheets in each department section for project descriptions, phasing and funding information. Projects with funding earmarked for citywide or system improvements are not shown on the map. Ongoing refinement of the GIS-based map will result in greater clarity of project information.

Utilities has several master plans related to their various programs. Click on the links below to view the master plan for the applicable area.

Comprehensive Flood & Stormwater Master Plan (<https://www-static.bouldercolorado.gov/docs/comprehensive-flood-stormwater-utility-master-plan-1-201406101202.pdf>)

Raw Water Master Plan Summary (<https://www-static.bouldercolorado.gov/docs/raw-water-mp-summary-1-201305151211.pdf>)

Treated Water Master Plan Summary (<https://www-static.bouldercolorado.gov/docs/treated-water-mp-summary-1-201305151212.pdf>)

Wastewater Treatment Master Plan Summary (<https://www-static.bouldercolorado.gov/docs/wastewater-treatment-mp-summary-1-201305151214.pdf>)

Click here to access all master plans for the City of Boulder. <https://bouldercolorado.gov/planning/department-master-plans-and-strategic-plans>



Utilities – Stormwater and Flood Management Utility

Project Name: Boulder Creek Flood Mitigation

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/STORMWATER & FLOOD UTILITY	Subcommunity:	MULTIPLE SUBCOMMUNITIES
Project Number:	610SW01500	BVCP Area:	AREA I
CEAP Required:	Yes	CEAP Status:	pending project selected

Project Description

This project will provide funds for flood mitigation work along Boulder Creek. Projects requiring a CEAP will be identified. The Boulder Creek Restoration Plan was accepted by Council in February 2016 which identified various improvements.

Project Phasing

2018 initiate design for improvements along the Boulder Creek or Boulder Slough as identified in the Restoration Plan. Depending upon which project and whether there are project alternatives, a CEAP will be completed.

Public Process

WRAB and Council reviewed the Restoration Plan

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Urban Drainage and Flood Control District coordinated a watershed wide restoration planning effort which included Boulder County and Longmont.

Change From Past CIP

\$2.5M in 2017 and \$1.0M in 2018 moved to Fourmile Canyon Creek

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	0.00	\$0	\$1,250,000	\$0	\$0	\$0	\$0

Funding to Completion \$0
Future Unfunded \$0

Total Funding Plan: \$1,250,000

Additional Annual Operating and Maintenance

Additional Annual O&M:	No	Funding Source for O&M:
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Additional Annual O&M Description:

No increase, funded by existing operating budget



Project Name: Fourmile - Upstream of Upland Ave

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/STORMWATER & FLOOD UTILITY

Subcommunity: NORTH BOULDER

Project Number: 610SW02100

BVCP Area: AREA I

CEAP Required: Yes

CEAP Status: 2016

Project Description

This project will provide flood mitigation along Fourmile Canyon Creek west of 19th Street. Detention, sediment capture, controlling spill flows, path connections and underpasses at Violet and Upland will be evaluated in the CEAP.

Project Phasing

The total estimated cost will be determined as part of the CEAP. A total of \$5.5 M is included in the 2016-2018 CIP from Flood funding. Path connection improvements will be funded from the Greenways CIP.

Public Process

CEAP will be reviewed by the Greenways Advisory Committee

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Coordinate with Parks and Recreation, Transportation, Open Space

Change From Past CIP

Increased funding in 2017 and 2018 to complete projects sooner.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	\$5,000,000	\$3,000,000	\$2,000,000	\$0	\$0	\$0	
						Funding to Completion	\$0
						Future Unfunded	\$0
							\$0

Total Funding Plan: \$5,500,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$10,000

Funding Source for O&M:

Additional Annual O&M Description:

new easements and new potential path



Utilities – Stormwater and Flood Management Utility

Project Name: Goose Creek 19th to Folsom

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/STORMWATER & FLOOD UTILITY	Subcommunity:	CENTRAL BOULDER
Project Number:	610SW00200	BVCP Area:	AREA I
CEAP Required:	Yes	CEAP Status:	end of 2016

Project Description

This project would enlarge the channel to provide increased capacity of Goose Creek between 19th Street and Folsom Street in conjunction with storm sewer improvements in the area.

Project Phasing

2019 Design \$500,000
2023 Construction \$5,000,000

Public Process

CEAP will go to the Water Resources Advisory Board in 2016.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

The storm sewer improvements are budgeted separately (both funding sources are within the Stormwater and Flood budget) and that work will be coordinated with the improvements to the channel. No other departmental or agency coordination is required.

Change From Past CIP

new item, funding moved from Fourmile 2019-2021

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	0.00	\$0	\$0	\$1,500,000	\$1,250,000	\$500,000	\$800,000

Funding to Completion \$0
Future Unfunded \$0

Total Funding Plan: \$4,050,000

Additional Annual Operating and Maintenance

Additional Annual O&M:	\$1000	Funding Source for O&M:
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Additional Annual O&M Description:

remove sediment and debris



Project Name: Gregory Creek Flood Mitigation

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/STORMWATER & FLOOD UTILITY
Subcommunity: CENTRAL BOULDER
Project Number: 610SW02400
BVCP Area: AREA I
CEAP Required: No
CEAP Status: 2016

Project Description

A flood mitigation plan was approved by City Council in December 2015. The plan identified various improvements, primarily involving replacement of culverts to increase the conveyance capacity of the channel to carry a 10-year storm event.

Project Phasing

Design and construction of a bridge replacement at the old Highland School is planned in 2016-2017. Funding for an additional upstream project identified in the mitigation plan was added in 2018.

Public Process

WRAB and Council will review the mitigation plan

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

added \$500,000 in 2018

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	500000.00	\$0	\$500,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$1,000,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$1,000

Funding Source for O&M:

Additional Annual O&M Description:

new easements will need to be maintained



Utilities – Stormwater and Flood Management Utility

Project Name: Local Drainage Improvements

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/STORMWATER & FLOOD UTILITY	Subcommunity:	MULTIPLE SUBCOMMUNITIES
Project Number:	610SW77000	BVCP Area:	AREA I
CEAP Required:	No	CEAP Status:	

Project Description

This capital project will provide funds to improve local drainage problems, many of which came to light as a result of the 2013 flood disaster and have persisted ever since. Areas that are likely to receive nearterm attention are the west valley of South Boulder Creek and Chautauqua.

Project Phasing

This project provides an ongoing funding source to address miscellaneous unplanned drainage improvement projects. These projects are primarily reported by residents to City staff as they arise.

Public Process

No additional public process is anticipated.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects will be coordinated with the Transportation Division.

Change From Past CIP

New Project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	694954.00	\$759,283	\$789,655	\$821,241	\$854,090	\$986,949	\$1,026,427
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: **\$5,932,599**

Additional Annual Operating and Maintenance

Additional Annual O&M:	\$0	Funding Source for O&M:	
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Additional Annual O&M Description:

No increase, funded by existing operating budget



Project Name: Preflood Property Acquisition

Project at a Glance

Project Type: CIP-LAND ACQUISITION

Department: PW/STORMWATER & FLOOD UTILITY

Subcommunity: MULTIPLE SUBCOMMUNITIES

Project Number: 610SW62200

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status: NA

Project Description

This project provides on-going funding for the purchase of properties in areas prone to flooding especially the city's high hazard regulatory area. Properties have been identified and prioritized along each of the city's major drainage ways. Property owners have been contacted regarding the city's interest. The city periodically updates its flood mapping to reflect changing conditions and improvements in flood modeling. The highest risk properties are identified for purchase, based on updated mapping for each of the drainage ways.

The project is for an ongoing funding program. Funding has been escalated to reflect inflation.

Project Phasing

This fund is used as properties come on the market that are identified as high hazard flood properties

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

none

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	500000.00	\$550,000	\$600,000	\$633,000	\$660,000	\$684,285	\$711,656
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$4,338,941

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:

No increase, funded by existing operating budget



Utilities – Stormwater and Flood Management Utility

Project Name: Skunk Creek Flood Mitigation

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/STORMWATER & FLOOD UTILITY	Subcommunity:	MULTIPLE SUBCOMMUNITIES
Project Number:	610SW00600	BVCP Area:	AREA I
CEAP Required:	Yes	CEAP Status:	2017

Project Description

A flood mitigation plan for Bluebell, Skunk and King's Gulch will be developed which will identify feasible mitigation improvements. Projects requiring a CEAP will be identified after the mitigation plan is completed.

Project Phasing

Planning \$200,000 in 2017
 Design and Acquisition \$100,000 in 2017
 Construction \$400,000 in 2018

Public Process

WRAB and Council will review mitigation plan

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Coordinate with the University of Colorado Boulder

Change From Past CIP

combined Bluebell and King's Gulch with Skunk

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	0.00	\$200,000	\$500,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: **\$700,000**

Additional Annual Operating and Maintenance

Additional Annual O&M: \$1,000

Funding Source for O&M:

Additional Annual O&M Description:

will be covered by existing maintenance budgets



Project Name: South Boulder Creek Phase I

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/STORMWATER & FLOOD UTILITY
Subcommunity: MULTIPLE SUBCOMMUNITIES
Project Number: 610SW00400
BVCP Area: AREA III
CEAP Required: No
CEAP Status: No

Project Description

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 is the initial phase and includes construction of a regional flood detention pond located just south of US36. This project would eliminate the overtopping of US36 during a 100-year storm event and greatly reduce downstream flood risks.

It is anticipated that the project will be designed and constructed in three phases, each approximately \$15-\$25 million. The recommended first phase would construct the regional flood detention facility at US36. Funding shown in the CIP is for the first phase. A CEAP will not be completed for the first phase as an extensive alternative analysis was completed as part of the South Boulder Creek Flood Mitigation Plan for this project phase.

Project Phasing

Planning and Environmental Clearances \$277,000 in 2016 and 2017
 Design \$2,000,000 in 2017 and 2018
 Construction \$25,000,000 in 2019

Public Process

There has been significant public process throughout the development of the South Boulder Creek Mitigation Plan, which was initiated in 2010 and completed in August 2015. Numerous alternatives were evaluated and presented for public consideration over the 5 year period. Design considerations of the regional detention facility will include public input during the preliminary design process and as part of the review of the CU annexation through the Boulder Valley Comprehensive Plan update.

DET/Impact Fees

DET/Impact Fees

Interdepartmental and Interagency Collaboration

The regional detention facility will impact Colorado Department of Transportation and University of Colorado properties and may impact Open Space property during construction. Utilities staff will coordinate with these other entities. Coordination will also occur through the Boulder Valley Comprehensive Plan update and preliminary design phase.

Change From Past CIP

none

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	750000.50	\$750,000	\$25,325,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$26,825,001

Additional Annual Operating and Maintenance

Additional Annual O&M: \$10,000

Funding Source for O&M:

Additional Annual O&M Description:

Detention Berm will require on-going maintenance



Utilities – Stormwater and Flood Management Utility

Project Name: Storm Sewer Rehabilitation

Project at a Glance

Project Type:	CIP-CAPITAL MAINTENANCE		
Department:	PW/STORMWATER & FLOOD UTILITY	Subcommunity:	SYSTEM-WIDE
Project Number:	610SW76000	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

The project provides funds for the rehabilitation of existing storm sewers.

Project Phasing

This project is for an ongoing funding program. The program is funded at \$250,000 per year (2013) escalated by an inflation index for future years. Sewers are rehabilitated on an ongoing basis using these funds.

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	293430.40	\$281,200	\$292,500	\$304,000	\$632,700	\$657,966	\$684,285

Funding to Completion \$0

Future Unfunded \$0

Total Funding Plan: \$3,146,081

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:

No increase; funded by existing operating budget



Project Name: Stormwater Quality Improvements

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/STORMWATER & FLOOD UTILITY	Subcommunity:	SYSTEM-WIDE
Project Number:	610SW77500	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

This project 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.

Project Phasing

This project is for an ongoing funding program. The program is funded at \$150,000 per year (2014) escalated by an inflation index for future years.

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	176674.52	\$169,000	\$175,500	\$182,500	\$190,000	\$197,390	\$205,285
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,296,350

Additional Annual Operating and Maintenance

Additional Annual O&M: 0 **Funding Source for O&M:**

Additional Annual O&M Description:



Utilities – Stormwater and Flood Management Utility

Project Name: SW MGMT - Bear Canyon Creek

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/STORMWATER & FLOOD UTILITY	Subcommunity:	SOUTH BOULDER
Project Number:	610SW73000	BVCP Area:	AREA I
CEAP Required:	No	CEAP Status:	

Project Description

Modification of storm sewers at Ithaca & Wildwood to remove hydraulic bottleneck.

Project Phasing

Project funding (\$0.4M) scheduled for 2021 CIP.

Public Process

This project was identified through the 2016 stormwater master plan process which was presented to WRAB and the public had opportunities to provide feedback on the master plan approach and project prioritization at those WRAB meetings.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will require collaboration with the Public Works - Transportation department regarding roadway restoration after installation of the sewer system.

Change From Past CIP

New project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	0.00	\$0	\$0	\$0	\$0	\$324,846	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: **\$324,846**

Additional Annual Operating and Maintenance

Additional Annual O&M:	0	Funding Source for O&M:
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Additional Annual O&M Description:

No additional O&M required



Project Name: SW MGMT - Middle Boulder Creek

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/STORMWATER & FLOOD UTILITY
Subcommunity: CENTRAL BOULDER
Project Number: 610SW71000
BVCP Area: AREA I
CEAP Required: No
CEAP Status:

Project Description

Master Plan Project - Expansion of storm sewer system in Downtown Boulder along Pearl Street from 16th Street to 21st Street.

Project Phasing

Project funding (\$3.8M) scheduled in CIP for 2021.

Public Process

This project was identified through the 2016 stormwater master plan process which was presented to WRAB and the public had opportunities to provide feedback on the master plan approach and project prioritization at those WRAB meetings.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will require collaboration with the Public Works - Transportation department regarding roadway restoration after installation of the sewer system.

Change From Past CIP

New project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	0.00	\$0	\$0	\$0	\$0	\$3,862,873	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$3,862,873

Additional Annual Operating and Maintenance

Additional Annual O&M: 0
Funding Source for O&M:

Additional Annual O&M Description:

No additional O&M required



Utilities – Stormwater and Flood Management Utility

Project Name: SW MGMT - Wonderland Creek

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/STORMWATER & FLOOD UTILITY	Subcommunity:	NORTH BOULDER
Project Number:	610SW72000	BVCP Area:	AREA I
CEAP Required:	No	CEAP Status:	

Project Description

Modifications to storm sewer system at Broadway and Fourmile Canyon Creek.

Project Phasing

Project funding (\$0.3M) scheduled for 2021 CIP

Public Process

This project was identified through the 2016 stormwater master plan process which was presented to WRAB and the public had opportunities to provide feedback on the master plan approach and project prioritization at those WRAB meetings.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will require collaboration with the Public Works - Transportation department regarding roadway restoration after installation of the sewer system.

Change From Past CIP

New project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	0.00	\$0	\$0	\$0	\$0	\$386,896	\$0
						Funding to Completion \$0	
						Future Unfunded \$0	

Total Funding Plan: \$386,896

Additional Annual Operating and Maintenance

Additional Annual O&M: 0	Funding Source for O&M:
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Additional Annual O&M Description:

No additional O&M required



Project Name: Transportation Coordination

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/STORMWATER & FLOOD UTILITY

Subcommunity: SYSTEM-WIDE

Project Number: 610SW78000

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status: N/A

Project Description

This project 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.

Project Phasing

The program is funded at \$250,000 per year (2013) escalated by an inflation index for future years.

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	324500.00	\$337,500	\$351,000	\$365,000	\$633,000	\$657,966	\$684,285
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$3,353,251

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:

No increase; funded by existing operating budget



Utilities – Stormwater and Flood Management Utility

Project Name: Twomile Canyon Creek

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/STORMWATER & FLOOD UTILITY	Subcommunity:	MULTIPLE SUBCOMMUNITIES
Project Number:	610SW00800	BVCP Area:	AREA I
CEAP Required:	Yes	CEAP Status:	2017

Project Description

A flood mitigation plan will be developed which will identify feasible mitigation improvements. Projects requiring a CEAP will be identified after the mitigation plan is completed.

Project Phasing

Planning - \$60,000 in 2017
 Design and Acquisition - \$100,000 in 2017
 Construction - \$440,000 in 2018

Public Process

WRAB and Council will review the mitigation plan

DET/Impact Fees

Change From Past CIP

Interdepartmental and Interagency Collaboration

none

none

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	0.00	\$100,000	\$500,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: **\$600,000**

Additional Annual Operating and Maintenance

Additional Annual O&M: \$1,000

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Utility Billing Computer System

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/STORMWATER & FLOOD UTILITY
Subcommunity: SYSTEM-WIDE
Project Number: 610SW45300
BVCP Area: SYSTEM-WIDE
CEAP Required: No
CEAP Status:

Project Description

This project is for the upgrade of the existing Utility Billing Computer System.

Project Phasing

The upgrade is anticipated in 2020.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will be coordinated with IT and Finance.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Stormwater & Flood Mgt Utility	30653.75	\$0	\$0	\$0	\$65,000	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$95,654

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Albion Dam

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA62800 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: No **CEAP Status:** N/A

Project Description

In 2015, the reservoir will require evacuation and implementation of a more permanent repair to the trash rack and pipe inlet area that can service until the dam rehabilitation project is scheduled.

Project Phasing

This 2015 schedule will depend on run-off conditions and water levels in the reservoir as the summer progresses. An RFP for rehabilitation alternatives will also issued in 2015.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	205000.00	\$0	\$341,636	\$3,416,361	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$3,962,997

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Barker Dam and Reservoir

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA11000

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: No

CEAP Status: Not Required

Project Description

This project will fund deficiency corrections at the existing Barker Dam, including security-related improvements. The repairs and improvements are required as part of the agency (SEO and FERC) Dam Safety Inspection Evaluations and while they are not an immediate safety concern, they are necessary to eliminate the potential of storage limitations being enforced or regulated.

Project Phasing

The project will begin in 2015. Construction is anticipated to be complete in 2016.

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

-

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	65000.00	\$50,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$115,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

No increase, funding by existing operating budget.



Project Name: Barker Dam Hydroelectric

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA91000 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: Yes **CEAP Status:** Starts in 2019

Project Description

Analysis and develop hydroelectric potential if preferred as recommended in the Source Water Master Plan, MWH, 2008/2009.

Project Phasing

As Outlet Rehabilitation Project was shifted out, this project has also been shifted out to Analysis Study (2022), Design (2021) and Construction (2022).

Public Process

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Change From Past CIP

None

Project delayed an additional 4 years due to shifted Outlet Rehab

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$0	\$0	\$0	\$0	\$50,000
							Funding to Completion \$0
							Future Unfunded \$0

Total Funding Plan: \$50,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$37,000 **Funding Source for O&M:**

Additional Annual O&M Description:

Operating costs will be offset by increased hydroelectric revenue



Project Name: Barker Dam Outlet

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA10900 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: Yes **CEAP Status:**

Project Description

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. Alternative approaches to the project will be considered by city staff and technical consultants as part of a technical analysis to be initiated in 2017. If possible due to reservoir levels, Gate No. 8, 9, and 10 will be inspected with divers in 2016 to confirm the condition of the lower gates. Information regarding the alternative approaches will be provided as part of the CEAP.

This project will begin in 2016. The project is anticipated to complete construction in 2019.

Project Phasing

The Outlet System Rehabilitation Project will begin in 2017 with an update to the alternative analysis. The project is anticipated to complete construction in 2020.

Public Process

CEAP is to be finalized in 2016 along with final approval of the project.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

After the alternative analysis has been completed in 2017, a CEAP will be required in 2018 to confirm the preferred option proposed by city staff and technical experts. The final design will have to be reviewed and approved in 2019 by DWR-Dam Safety Division before construction can proceed in 2020. Water Resources staff will coordinate with the Water Commissioner and affected water rights holders if lower reservoir levels are required in 2019/2020.

Change From Past CIP

Project schedule shifted out due to satisfactory gate inspections

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	100000.00	\$175,000	\$0	\$835,551	\$8,455,509	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$9,566,060

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**

Additional Annual O&M Description:



Project Name: Barker Gravity Pipeline Repair

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA10600 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: No **CEAP Status:**

Project Description

This project will provide funds for ongoing repairs to the Barker Gravity Pipeline. A rehabilitation segment will be placed in 2016 and the results will be used to update the 15 year rehabilitation cost estimates forecast for 2017 to 2031.

Project Phasing

A rehabilitation segment is planned in 2016 and the results will be used to update the 15 year rehabilitation cost estimates forecast for 2017 to 2031. Grout patching repairs will continue in the segments not being rehabilitated in any given year.

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

After evaluation of the pipe liner segment that was installed in 2016, a priority based rehabilitation program over 15 years will begin in 2017. The USFS, Boulder County and Private Land Owners will be notified and coordinated with in advance of activities on the pipeline easement crossing their lands. USCOE permitting may be required if any wetlands are disturbed (i.e. in the bottom of the siphon segments or where access roads cross drainages).

Change From Past CIP

\$250K grouting added to rehabilitation budget starting in 2017

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	909446.72	\$1,559,811	\$1,622,204	\$1,687,092	\$2,083,559	\$2,166,901	\$2,253,577
					Funding to Completion \$0		
						Future Unfunded \$0	

Total Funding Plan: \$12,282,591

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Barker-Kossler Penstock Repair

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA10700

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: No

CEAP Status:

Project Description

This project will provide funds for analysis and targeted repairs for areas discovered in the inspection in 2017. An analysis will be performed on approximate remaining operational life including recommendations from metallurgical and corrosion experts.

Project Phasing

Investigation of condition and maintenance/rehabilitation requirements in 2017 with recommendations/results to be used for rehabilitation program estimate for future years.

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$116,986	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$116,986

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Betasso Hydroelectric / PRF

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA97400 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: No **CEAP Status:** Not Required

Project Description

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 HPU and replacement of the transformer.

Project Phasing

The turbine generator maintenance and HPU replacement is scheduled for replacement in 2017. Ongoing transformer monitoring will allow transformer replacement to be delayed until 2018.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

-

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$400,000	\$480,000	\$0	\$0	\$0	\$0
					Funding to Completion	\$0	\$0
					Future Unfunded	\$0	\$0

Total Funding Plan: \$880,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 0 **Funding Source for O&M:**

Additional Annual O&M Description:

No increase, funded by existing operating budget



Project Name: Betasso Storage Tank Rehabilitation

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA67600

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: No

CEAP Status: Not Required

Project Description

The project includes rehabilitation and exterior painting of the Betasso Storage Tank. The improvements will address deterioration of the protective paint coating of the elevated steel tank due to weather and other environmental factors.

Project Phasing

Included with the Betasso CIP project between 2016 and 2018.

Public Process

See the larger Betasso CIP project.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

See the larger Betasso CIP project.

Change From Past CIP

-

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$292,465	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$292,465

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

No increase, funded by existing operating budget.



Project Name: Boulder Canyon Hydro

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity:

Project Number: 610WA97500

BVCP Area:

CEAP Required:

CEAP Status:

Project Description

Boulder Canyon Hydroelectric – Maintenance and Inspection of the recently installed replacement unit.

Project Phasing

5 year inspection of the turbine in 2018

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	23027.00	\$0	\$90,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$113,027

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Boulder Reservoir

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: GUNBARREL

Project Number: 610WA61000

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

Inspection of outlet pipes in 2016 to assess degree of corrosion. Funds in 2020 are for security upgrades at the reservoir.

Project Phasing

Work to be completed in 2016 and 2020.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	50000.00	\$0	\$0	\$0	\$118,434	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$168,434

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Carter Lake Hydroelectric

Project at a Glance

Project Type: CIP-NEW FACILITY/INFRASTRUCTUR
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA93000 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: Yes **CEAP Status:**

Project Description

Analyze potential for hydroelectric facility on the city's portion of the Carter Lake Pipeline and then design and build if preferred.

Project Phasing

Alternatives analysis in 2018 with CEAP and then potentially design (2019) and construction (2020).

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$50,000	\$250,000	\$2,500,000	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$2,800,000

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Devil's Thumb Storage Tank

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/WATER UTILITY

Subcommunity: SOUTH BOULDER

Project Number: 610WA67400

BVCP Area: AREA III

CEAP Required: No

CEAP Status: Not Required

Project Description

Security, water quality, tank painting and structural improvements.

Project Phasing

Water quality and security improvements in 2016. Painting and structural improvements starting in 2022 through Spring of 2023

Public Process

WRAB, PB and CC CIP/budget review.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

OSMP access and fence location coordination.
Boulder County fence permit.

Change From Past CIP

Painting & structural moves into 6 year CIP.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	19795.82	\$0	\$0	\$0	\$0	\$0	\$1,486,874
							Funding to Completion \$0
							Future Unfunded \$0

Total Funding Plan: \$1,506,670

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:

No increase, funded by existing operating budget.



Project Name: Distribution Waterline Replacement

Project at a Glance

Project Type:	CIP-CAPITAL MAINTENANCE		
Department:	PW/WATER UTILITY	Subcommunity:	SYSTEM-WIDE
Project Number:	610WA38900	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	Not Required

Project Description

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.

Project Phasing

Work is done annually and year round. Design, bidding and inspection is done in house for less than 10% of the budget. Remaining funds are used for construction.

Public Process

WRAB, PB and CC CIP/budget review. Neighborhoods are notified a couple of weeks in advance of the construction and on the water info website.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

City & County Transportation, City & County Open Space, City Development Review, City Planning, City Flood, City Wastewater, Xcel, Century Link, BNSF, Private Developers, BVSD, RTD, small water districts and Ditch Companies.

Change From Past CIP

-

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	3506073.67	\$3,487,078	\$3,626,562	\$3,771,624	\$3,922,489	\$4,079,389	\$4,242,564
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$26,635,780

Additional Annual Operating and Maintenance

Additional Annual O&M: 0 **Funding Source for O&M:**

Additional Annual O&M Description:
No increase, funded by existing operating budget.



Project Name: Farmer's Ditch

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA55000

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: No

CEAP Status:

Project Description

Improvements and freebord maintenance of the ditch where segment vulnerabilities were highlighted by the 2013 flood event.

Project Phasing

Construction of impacted segments to be completed in 2015.

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$0	\$108,160	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$108,160

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Goose Lake Dam

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA61200 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: No **CEAP Status:** Not Required

Project Description

To meet SEO Dam Safety requirements, in 2015 the city will conduct an inspection and assessment of the outlet system at Goose Lake Dam including the intake, conduit and valve system.

Project Phasing

Project will begin and be completed in 2015 subject to ability to drain the reservoir for inspection. Else outlet assessment will be shifted out and additional funding for underwater inspection may be required.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

-

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	20000.00	\$0	\$75,000	\$0	\$0	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$95,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 0 **Funding Source for O&M:**

Additional Annual O&M Description:

-



Project Name: Green Lake 2 Dam

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA62700

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: No

CEAP Status: Not Required

Project Description

This project will provide funds for the evaluation of alternatives and design of the rehabilitation of Green Lake 2 Dam. Green Lake 2 Dam is in need of extensive rehabilitation to allow continued storage of water.

Project Phasing

Funding allocated in the current CIP is for analysis of alternatives in 2020 and then design plus construction in 2021/2022.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

-

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$0	\$0	\$75,000	\$486,773	\$4,867,726
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$5,429,499

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

No increase, funded by existing operating budget



Project Name: Hydro Facilities Rehab Program

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:**
Project Number: 610WA94100 **BVCP Area:**
CEAP Required: **CEAP Status:**

Project Description

Hydro maintenance for all facilities. Misc minor items/repairs/upgrades.

Project Phasing

50k a year indefinitely.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$300,000

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Island Lake Dam

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA62600

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: No

CEAP Status:

Project Description

This project is to fund valve actuations improvements and instrumentation necessary at the dam.

Project Phasing

Work to be initiated in 2018.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$50,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$50,000

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Kossler Dam

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA11900 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: **CEAP Status:**

Project Description

Kossler Dam Face Rehabilitation Project is to be completed in 2015.

Project Phasing

Temporary repairs will be required for the Kossler Reservoir Inlet Structure in 2016. Both the Inlet Structure and the Outlet Structure will require full rehabilitation/replacement within 10 years and is presently scheduled for 2022/2023.

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

Inlet Repairs added in 2016 and Inlet/Outlet Rehab in 2022/23

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	137898.04	\$0	\$0	\$0	\$0	\$0	\$100,000
							Funding to Completion \$0
							Future Unfunded \$0

Total Funding Plan: \$237,898

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Lakewood Dam

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA62000

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: No

CEAP Status:

Project Description

This project will provide funds for security improvements at Lakewood Reservoir that are required to update to the level of all city facilities subject to public access and as recommended in the Source Water Master Plan and subsequent consultant reports.

Project Phasing

This project will begin in 2018. The project is anticipated to complete construction in 2019.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$124,707	\$0	\$0	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$124,707

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Lakewood Hydroelectric/PRV

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/WATER UTILITY **Subcommunity:** AREA III
Project Number: 610WA90100 **BVCP Area:** AREA III
CEAP Required: No **CEAP Status:**

Project Description

10-year turbine generator overhaul in 2016.

Project Phasing

Generator overhaul to be completed in 2016. Forecast PRV refurbishment in 2019.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	130000.00	\$0	\$0	\$300,000	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$430,000

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**

Additional Annual O&M Description:



Project Name: Lakewood Pipeline

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA78000

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: Yes

CEAP Status: Yes

Project Description

The Sixth Internal Inspection of the Lakewood Pipeline is scheduled for 2015. This inspection should confirm the expected corrosion rates indicated by the previous inspections and make a recommendation as to fitness for operational condition.

Project Phasing

Fall of 2015 is presently scheduled for the sixth Internal Inspection.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$0	\$316,330	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$316,330

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: NCWCD Conveyance - Carter Lake Pipe

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA54700 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: **CEAP Status:**

Project Description

This project will provide funds for the planning, design and construction of a pipeline from Carter Lake to the Boulder Reservoir Water Treatment Facility. The pipeline is considered the best long-term solution to water quality, operational and security vulnerability issues related to drawing water directly from either the Boulder Feeder Canal or Boulder Reservoir. The Northern Colorado Water Conservancy District is the lead agency and the City of Boulder and the Left Hand Water District are project participants.

Project Phasing

CIP budget continues through 2016 for ROW and preliminary design costs. Final design and construction is scheduled for 2017/2018.

Public Process

The pipeline construction and alignment was approved by Boulder County under the 1041 permit process.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Coordination with Boulder County and Northern Colorado Water Conservancy District

Change From Past CIP

Budgeted Costs were updated per cost share and latest estimates

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	850000.00	\$2,150,000	\$32,050,000	\$0	\$0	\$0	\$0
						Funding to Completion \$0	Future Unfunded \$0
Total Funding Plan:	\$35,050,000						

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Pearl Street Hydro/PRV Facility

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/WATER UTILITY

Subcommunity: AREA III

Project Number: 610WA36000

BVCP Area: AREA III

CEAP Required: No

CEAP Status: Not required

Project Description

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.

Project Phasing

Design and Construction: Begin feasibility study in early 2018, design in late 2018 with construction completion in early 2020.

Public Process

WRAB, PB and CC review of CIP/Budget.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Boulder County Building Department, HHS for shared access considerations.

Change From Past CIP

-

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$24,333	\$243,331	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$267,664

Additional Annual Operating and Maintenance

Additional Annual O&M: TBD

Funding Source for O&M:

Additional Annual O&M Description:

TBD, operating costs will be offset by hydroelectric revenue



Project Name: Reservoir Water Treatment Facility

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:** GUNBARREL
Project Number: 610WA90000 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

Replace the filter valve actuators, filter media, filter valves, residual lagoon asphalt and upgrade backup power. Resiliency project electrical updates.

Project Phasing

Replace filter valve actuators that are failing in 2016. Project spread over the 6 year window, finish construction in early 2021.

Public Process

WRAB, PB and CC CIP/budget review.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

City of Boulder building permit.

Change From Past CIP

2020 Bond broken into smaller projects over 6 years.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	314000.00	\$200,000	\$200,000	\$0	\$600,000	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$1,314,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Silver Lake Dam

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA61500

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: No

CEAP Status:

Project Description

To meet SEO Dam Safety requirements, a full outlet system inspection is required in 2015.

Project Phasing

Outlet Inspection to be completed in 2015 with reservoir lowered/drained and underwater inspection equipment as may be required.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	75000.00	\$0	\$100,000	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$175,000

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Silver Lake Hydroelectric/PRV

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA97000 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: No **CEAP Status:**

Project Description

Silver Lake Hydroelectric Facility has been increased in 2016 through 2018 for PLC upgrades and replacement of the turbine needles/seats

Project Phasing

In 2016 complete short term PLC upgrades and alternatives analysis for permanent upgrades, permanent PLC upgrades in 2017 and replacement of the needles/seats in 2018.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	60244.89	\$50,000	\$0	\$200,000	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$310,245

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Skyscraper Dam

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA64000

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: No

CEAP Status:

Project Description

Funding is for infrastructure evaluation and gate replacement as recommended in the Source Water Master Plan.

Project Phasing

Project to be initiated in 2021

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$0	\$0	\$0	\$171,071	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$171,071

Additional Annual Operating and Maintenance

**Additional Annual
O&M:**

**Funding Source for
O&M:**

Additional Annual O&M Description:



Project Name: Source Pumping and Hydro Rehab

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:** MULTIPLE SUBCOMMUNITIES
Project Number: 610WA94000 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

Funding for capital maintenance for the critical hydroelectric, pressure reducing, and reversible pump-generator system components not identified as individual capital projects.

Project Phasing

Funding for this ongoing maintenance program to begin in 2016.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	150000.00	\$150,000	\$150,000	\$150,000	\$343,472	\$351,210	\$359,259
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$1,653,941

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Source Water Monitoring/Protection

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/WATER UTILITY

Subcommunity: SYSTEM-WIDE

Project Number: 610WA44200

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status:

Project Description

Flow release and water quality monitoring system instrumentation improvements for the source water system.

Project Phasing

Ongoing implementation starting in 2015 and to be completed in 2019 (5 years).

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	100000.00	\$100,000	\$100,000	\$100,000	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$400,000

Additional Annual Operating and Maintenance

**Additional Annual
O&M:**

**Funding Source for
O&M:**

Additional Annual O&M Description:



Project Name: Sunshine Hydroelectric/PRV Facility

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: AREA III

Project Number: 610WA34700

BVCP Area: AREA III

CEAP Required: No

CEAP Status: Not Required

Project Description

Project includes rehabilitation of the Sunshine Hydroelectric Pressure Reducing Station including flow meter and rehabilitation or replacement of the existing control system.

Project Phasing

Design and Construction: Begin design in early 2017 with completion in early 2018.

Public Process

WRAB, PB and CC review of CIP/Budget.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Shared access considerations with OSMP.

Change From Past CIP

-

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$271,875	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$271,875

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

No increase, funded by existing operating budget



Project Name: Watershed Improvements

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: OUTSIDE PLANNING AREA

Project Number: 610WA52000

BVCP Area: OUTSIDE PLANNING AREA

CEAP Required: No

CEAP Status:

Project Description

General Watershed improvements as recommended in the 2009 Source Water Master Plan.

Project Phasing

Ongoing improvements to facilitate continued reliable operation of the watershed source water storage and delivery system. CIP budget continues until 2016.

Public Process

none

DET/Impact Fees

Interdepartmental and Interagency Collaboration

none

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	80000.00	\$0	\$0	\$0	\$100,000	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$180,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Water System Security/Quality Imprv

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/WATER UTILITY **Subcommunity:** SYSTEM-WIDE
Project Number: 610WA44000 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

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 bimpromvements where appropriate.

Project Phasing

Various cameras, fences, network connections and water quality monitory at treated water starnded facilities such as Devil's Thumb Tank, Booton Reservoir, Kohler Reservoir, Maxwell Reservoir and 101 Pearl.

Public Process

WRAB, PB and CC CIP/budget review.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

City Open Space, Boulder County and City Development Review.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	177682.01	\$150,000	\$150,000	\$90,000	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$567,682

Additional Annual Operating and Maintenance

Additional Annual O&M: \$5,000 **Funding Source for O&M:**

Additional Annual O&M Description:
 Maintain panels and instruments



Project Name: Water Treatment Equipment Replacemnt

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: SYSTEM-WIDE

Project Number: 610WA95000

BVCP Area:

CEAP Required: No

CEAP Status:

Project Description

Equipment replacement fund for both treatment facilities. Administered by plant staff for equipment replacement outside of larger projects.

Project Phasing

Ongoing fund replenished at \$50,000 per year adjusted annually by inflation. \$150 K plus inflation cap.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

New ongoing fund.

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$127,000	\$100,000	\$100,000	\$100,000	\$50,000	\$52,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$529,000

Additional Annual Operating and Maintenance

Additional Annual O&M: No

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Wittemyer Ponds

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/WATER UTILITY **Subcommunity:** OUTSIDE PLANNING AREA
Project Number: 610WA65000 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: Yes **CEAP Status:** No

Project Description

Wittemyer Ponds – this facility consists of multiple reservoirs planned for potential use in terms of city water exchanges. Alternatives for improving the ponds to reservoirs will be considered for final implementation.

Project Phasing

The alternatives study and CEAP are planned for 2019 with design and construction for 2020/2021.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$0	\$100,000	\$492,685	\$4,926,849	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$5,519,534

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Utility Billing Computer System

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/WATER UTILITY

Subcommunity: SYSTEM-WIDE

Project Number: 610WA45300

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status:

Project Description

This project is for the upgrade of the existing Utility Billing Computer System.

Project Phasing

This project is planned for 2020.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will be coordinated with IT and Finance.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$0	\$0	\$125,000	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$125,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Zone 1 Transmission Pipes

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:** SYSTEM-WIDE
Project Number: 610WA00200 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

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).

Project Phasing

\$626,601 annual budget starting in 2020 and escalated by inflation. Will mirror the City's annual distribution main replacement program.

Public Process

WRAB, PB and CC CIP/budget review. Neighborhoods are notified a couple of weeks in advance of the construction and on the water info website.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

City & County Transportation, City & County Open Space, City Development Review, City Planning, City Flood, City Wastewater, Xcel, Century Link, BNSF, Private Developers, BVSD, RTD, small water districts and Ditch Companies.

Change From Past CIP

Yes program started in 2020

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$0	\$0	\$626,601	\$651,665	\$677,732
					Funding to Completion	\$0	
						Future Unfunded	\$0

Total Funding Plan: \$1,955,998

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Zone 2 Transmission Pipes

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WATER UTILITY

Subcommunity: SYSTEM-WIDE

Project Number: 610WA00400

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status:

Project Description

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).

Project Phasing

\$909,016 annual budget starting in 2020 and escalated by inflation. Will mirror the City's annual distribution main replacement program.

Public Process

WRAB, PB and CC CIP/budget review. Neighborhoods are notified a couple of weeks in advance of the construction and on the water info website.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

City & County Transportation, City & County Open Space, City Development Review, City Planning, City Flood, City Wastewater, Xcel, Century Link, BNSF, Private Developers, BVSD, RTD, small water districts and Ditch Companies.

Change From Past CIP

Yes program started in 2020

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	0.00	\$0	\$0	\$0	\$909,016	\$945,377	\$983,192
					Funding to Completion \$0		
					Future Unfunded \$0		

Total Funding Plan: \$2,837,585

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: Zone 3 Transmission Pipes

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WATER UTILITY **Subcommunity:** SYSTEM-WIDE
Project Number: 610WA00500 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

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).

Project Phasing

\$6.75 M budgeted for 12,500 of replacement and rehabilitation starting in 2017 and ending in 2019. Utilizes some of the remaining Sunshine pipeline funding.
 \$467,460 annual budget starting in 2020 and escalated by inflation. Will mirror the City's annual distribution main replacement program.

Public Process

WRAB, PB and CC CIP/budget review. Neighborhoods are notified a couple of weeks in advance of the construction and on the water info website.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

City & County Transportation, City & County Open Space, City Development Review, City Planning, City Flood, City Wastewater, Xcel, Century Link, BNSF, Private Developers, BVSD, RTD, small water districts and Ditch Companies.

Change From Past CIP

Yes program started in 2020. Zone 3 pricing now based on 30% design

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Water Utility	1200000.00	\$0	\$0	\$0	\$467,460	\$486,158	\$505,605
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$2,659,223

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Collection System Monitoring

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PWWASTEWATER UTILITY

Subcommunity:

Project Number: 610VWW45000

BVCP Area:

CEAP Required: No

CEAP Status: N/A

Project Description

This project provides funds for monitoring of the City's wastewater collection system. 19 flow monitors were installed as of the spring of 2016. This project is for an ongoing funding program.

Project Phasing

This is an annual program funded at approximately \$150,000 per year.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Funding increased to 150,000

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	3426.10	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
					Funding to Completion \$0		
					Future Unfunded \$0		

Total Funding Plan: \$903,426

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0

Funding Source for O&M:

Additional Annual O&M Description:

No increase; funded by existing operating budget



Project Name: Condition Assessment Program

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WASTEWATER UTILITY **Subcommunity:** SYSTEM-WIDE
Project Number: 610WW45100 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:** N/A

Project Description

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. The program was funded at \$780,000 (2015) and will be escalated at 4% annually for the 2016-2021 CIP. This project is for an ongoing funding program.

Project Phasing

The 2016-2017 condition assessment program was bid and awarded at a cost of \$1.6M.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	1111200.00	\$0	\$648,960	\$674,918	\$701,915	\$729,992	\$759,191
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$4,626,176

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**

Additional Annual O&M Description:

No increase; funded by existing budget



Project Name: Foothills & Baseline Trunk Swr Repl

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/WASTEWATER UTILITY **Subcommunity:** SOUTHEAST BOULDER
Project Number: 610WW40200 **BVCP Area:** AREA I
CEAP Required: No **CEAP Status:**

Project Description

Replacemnt and upsizing of hydraulically under capacity trunk sewers in Foothills S of Baseline and in Baseline from Foothills Hwy to 55th St.

Project Phasing

2018: \$3.5M

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

New project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	0.00	\$0	\$3,497,000	\$0	\$0	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$3,497,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 0 **Funding Source for O&M:**

Additional Annual O&M Description:

No additional O&M required



Project Name: Interceptor Sewer Rehabilitation

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WASTEWATER UTILITY **Subcommunity:** EAST BOULDER
Project Number: 610VWW46000 **BVCP Area:** OUTSIDE PLANNING AREA
CEAP Required: Yes **CEAP Status:** In Developemnt

Project Description

The City's existing main sanitary interceptor sewer is at the end of its useful life and hydraulically insufficient. This project is for the rehabilitation, reconstruciton, or re-alignment of the interceptor sewer.

Project Phasing

Project Funding (\$10.1M) has been scheduled in the 2018 CIP. The CEAP process for the project started in 2016 and design is anticipated to last into 2017.

Public Process

This project was identified in the 2016 wastewater collection system master plan which was presented to WRAB. The public had the opportunity to provide feedback on the master plan approach and project prioritization at those WRAB meetings. This project also requires a CEAP which will provide additional opportunities for public involvement.

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will require extensive collaboration with other poroperty owners and managers such as RTD, Boulder County, and COB OSMP.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	0.00	\$0	\$10,184,920	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$10,184,920

Additional Annual Operating and Maintenance

Additional Annual O&M: 0 **Funding Source for O&M:**

Additional Annual O&M Description:

No additional O&M required



Project Name: Lower Goose Creek Trunk Repl

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PWWASTEWATER UTILITY

Subcommunity: EAST BOULDER

Project Number: 610VW40100

BVCP Area: AREA I

CEAP Required: No

CEAP Status:

Project Description

Replacement of undersized trunk sanitary sewer and rehabilitation of hydraulically connected structurally deteriorated sewer segments.

Project Phasing

2017: \$4M project

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

New project

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	0.00	\$4,000,000	\$0	\$0	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$4,000,000

Additional Annual Operating and Maintenance

Additional Annual O&M: 0

Funding Source for O&M:

Additional Annual O&M Description:

No additional O&M required



Project Name: Sanitary Sewer Manhole Rehabilitati

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PWWASTEWATER UTILITY **Subcommunity:** SYSTEM-WIDE
Project Number: 610VW42000 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

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 \$100,000 per year (2013) escalated by an inflation index for future years. This project is for an ongoing funding program.

Project Phasing

This is an annual program funded at approxiimately \$200,000 per year.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Additional funding included

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	216320.00	\$224,973	\$233,972	\$243,331	\$253,064	\$657,966	\$684,285
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$2,513,911

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Sanitary Sewer Rehabilitation

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PWWASTEWATER UTILITY

Subcommunity: SYSTEM-WIDE

Project Number: 610WW40000

BVCP Area: SYSTEM-WIDE

CEAP Required: No

CEAP Status:

Project Description

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 for the 2016-2021 CIP. This project is for an ongoing funding program.

Also included is funding for the rehabilitation of the city's sanitary interceptor sewer in 2015. Estimated costs associated with this project are \$10,000,000 and it is anticipated revenue bonds will be issues. The sanitary interceptor conveys 90% of the city's flow to the Wastewater Treatment facility (WWTF). City staff completed an inspection of approximately 6 miles of the interceptor in the spring of 2014 and found significant internal corrosion in numerous pipe sections. City staff will be completing inspection of an additional 10-12 miles of concrete sewer in 2014. The bond funds will be used to rehabilitate the worst condition sewer sections utilizing a combination of open cut and lining technologies.

Project Phasing

The 2015 program addressed rehabilitation of sewers in Frasier mEadows, Keewaydin Meadows, and Martin Acres. The 2016 program will address sewers in downtown Boulder.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Increased funding

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	2886603.41	\$1,743,539	\$2,983,139	\$3,102,465	\$3,226,563	\$3,355,626	\$3,489,851
					Funding to Completion \$0		
					Future Unfunded \$0		

Total Funding Plan: \$20,787,786

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:

No additional O&M required



Project Name: Utility Billing Computer System

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WASTEWATER UTILITY **Subcommunity:** SYSTEM-WIDE
Project Number: 610VWW45300 **BVCP Area:** SYSTEM-WIDE
CEAP Required: No **CEAP Status:**

Project Description

This project is for the upgrade of the existing Utility Billing System.

Project Phasing

The project is planned for 2020.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

This project will be coordinated with IT and Finance.

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	30653.75	\$0	\$0	\$0	\$65,000	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$95,654

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Wastewater Treatment Facility Pumps

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/WASTEWATER UTILITY **Subcommunity:** AREA III
Project Number: 610VW60000 **BVCP Area:** AREA III
CEAP Required: No **CEAP Status:** N/A

Project Description

This project will fund the rehabilitation of existing pumps at the 75th Street WWTF. The 2016 will be allocated based on asset management needs.

Project Phasing

Construction: \$150,000 (2016)

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	150000.00	\$0	\$0	\$150,000	\$0	\$0	\$150,000
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$450,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**

Additional Annual O&M Description:

No increase; funded by existing operating budget



Project Name: WWTF Cogeneration

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PWWASTEWATER UTILITY **Subcommunity:** AREA III
Project Number: 610WW62900 **BVCP Area:** AREA III
CEAP Required: No **CEAP Status:** NA

Project Description

This project is to provide funding for a major overhaul of the two cogeneration engines. Major engine rebuilds occur every 7 years and are funded at \$150,000 (in 2009 dollars) escalated at 4% annually.

Project Phasing

Construction: \$185,000 (2020)

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	4613.36	\$400,000	\$0	\$0	\$184,481	\$0	\$0
					Funding to Completion	\$0	\$0
					Future Unfunded	\$0	\$0

Total Funding Plan: \$589,094

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: WWTF Cogeneration

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PWWASTEWATER UTILITY

Subcommunity: AREA III

Project Number: 610WW62900

BVCP Area: AREA III

CEAP Required: No

CEAP Status: NA

Project Description

This project is to provide funding for a major overhaul of the two cogeneration engines. Major engine rebuilds occur every 7 years and are funded at \$150,000 (in 2009 dollars) escalated at 4% annually.

Project Phasing

Construction: \$185,000 (2020)

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	4613.36	\$400,000	\$0	\$0	\$184,481	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$589,094

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: WWTF Digester Cleaning

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WASTEWATER UTILITY

Subcommunity:

Project Number: 610WW66000

BVCP Area:

CEAP Required:

CEAP Status:

Project Description

The WWTF has a primary and secondary digester (the stomachs of the facility). These process tanks accumulate solids (rags, trash, hair etc) that do not pass through the process. The facility currently utilizes a 7-year cleaning cycle whereby the tanks (one at a time) are taken off line and the tanks are cleaned.

Project Phasing

The 2020 CIP project is identified to replace the existing floating cover with a new baffle gas storage system

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	0.00	\$0	\$0	\$0	\$136,857	\$0	\$0
					Funding to Completion	\$0	\$0
					Future Unfunded	\$0	\$0

Total Funding Plan: \$136,857

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: WWTF Digester Complex

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WASTEWATER UTILITY

Subcommunity: AREA III

Project Number: 610WW60700

BVCP Area: AREA III

CEAP Required: No

CEAP Status:

Project Description

This project is to replace the WWTF secondary digester floating cover. The cover has failed on several occasions in recent years.

Project Phasing

Planning and design: \$200,000 (2019)
Construction: \$2,000,000 (2020)

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	0.00	\$0	\$0	\$200,000	\$2,000,000	\$0	\$0
					Funding to Completion	\$0	\$0
					Future Unfunded	\$0	\$0

Total Funding Plan: \$2,200,000

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: WWTF Electrical

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/WASTEWATER UTILITY **Subcommunity:** AREA III
Project Number: 610VWV63900 **BVCP Area:** AREA III
CEAP Required: No **CEAP Status:** N/A

Project Description

This project will fund the rehabilitation of various existing electrical systems at the 75th Street WWTF. Maintaining the facility's electrical infrastructure is a critical component to ensure adequate treatment. This project will include the replacement of numerous major electrical components. The 2016 funding will cover the planning and design, and the 2017 funding will cover the construction.

Project Phasing

Planning & design: \$120,000 (2016)
 Construction \$1,200,000 (2017)

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	120000.00	\$1,400,000	\$210,000	\$0	\$0	\$0	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$1,730,000

Additional Annual Operating and Maintenance

Additional Annual O&M: \$0 **Funding Source for O&M:**

Additional Annual O&M Description:
 No increase; funded by existing operating budget



Project Name: WWTF Instrumentation/Control

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT

Department: PW/WASTEWATER UTILITY

Subcommunity: AREA III

Project Number: 610WW63700

BVCP Area: AREA III

CEAP Required: No

CEAP Status: N/A

Project Description

This project will fund the rehabilitation and/or replacement of instrumentation & control facilities at the 75th Street WWTF. 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 over a 10-year period.

Project Phasing

Construction: \$1,127,000 (2015)
Construction: \$2,800,000 (2016-2020)

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	0.00	\$0	\$0	\$1,265,319	\$0	\$0	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$1,265,319

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:

No increase; funded by existing operating budget



Project Name: WWTF Permit Improvements

Project at a Glance

Project Type: CIP-CAPITAL ENHANCEMENT
Department: PW/WASTEWATER UTILITY **Subcommunity:** AREA III
Project Number: 610VW61700 **BVCP Area:** AREA III
CEAP Required: No **CEAP Status:** N/A

Project Description

This project will address additional WWTF facilities required to meet new effluent regulations identified in the 2011 Colorado Discharge Permit System (CDPS) Permit. The WWTF must meet the new effluent limits by December 2017. The project was bid in May 2015. The 2015-2016 funding is for the project's construction.

Project Phasing

Nitrogen Project Construction \$4,000,000 (2015 & 2016)
 Phosphorus Project
 Planning & Design: \$2,250,000 (2018 & 2019)
 Construction: \$18,500,000 (2020)

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Funding for construction of improvement added in 2009

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	150531.11	\$0	\$862,500	\$1,725,000	\$17,375,000	\$136,857	\$0
						Funding to Completion	\$0
						Future Unfunded	\$0

Total Funding Plan: \$20,249,888

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:

No increase; funded by existing operating budget



Project Name: WWTF Primary Clarifiers

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE

Department: PW/WASTEWATER UTILITY

Subcommunity:

Project Number: 610VW60500

BVCP Area:

CEAP Required:

CEAP Status:

Project Description

The primary clarifiers are settling tanks located after the headworks and before the aeration basins (biological process). The clarifiers are concrete circular tanks with rotating steel mechanisms to separate the solids from the water. The 2020 Primary Clarifiers CIP project will replace these rotating drive mechanisms. This is a high priority asset management project with an estimated cost of \$9M (\$3M per clarifier).

Project Phasing

Replacement to begin in 2019 and be completed in 2021.

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	0.00	\$0	\$0	\$900,000	\$9,000,000	\$1,350,000	\$0
					Funding to Completion	\$0	
					Future Unfunded	\$0	

Total Funding Plan: \$11,250,000

Additional Annual Operating and Maintenance

Additional Annual O&M:

Funding Source for O&M:

Additional Annual O&M Description:



Project Name: WWTF Rehabilitation

Project at a Glance

Project Type: CIP-CAPITAL MAINTENANCE
Department: PW/WASTEWATER UTILITY **Subcommunity:** AREA III
Project Number: 610WW61500 **BVCP Area:** AREA III
CEAP Required: No **CEAP Status:** N/A

Project Description

Projects identified from the Wastewater Utility Asset Management Planning Tool.

Project Phasing

2017-2022: 250k annual budget

Public Process

N/A

DET/Impact Fees

Interdepartmental and Interagency Collaboration

Projects are coordinated with Boulder County land use and planning

Change From Past CIP

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Wastewater Utility	0.00	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
						Funding to Completion \$0	Future Unfunded \$0

Total Funding Plan: \$1,500,000

Additional Annual Operating and Maintenance

Additional Annual O&M: **Funding Source for O&M:**
Additional Annual O&M Description:



Project Name: Greenways Projects

Project at a Glance

Project Type:	CIP-CAPITAL ENHANCEMENT		
Department:	PW/STORMWATER & FLOOD UTILITY	Subcommunity:	SYSTEM-WIDE
Project Number:	610GW00000	BVCP Area:	SYSTEM-WIDE
CEAP Required:	No	CEAP Status:	N/A

Project Description

The Focus of 2017-2019 Funding (\$270,400 per year) is on multi-use path, underpass, water quality, and habit improvements along Fourmile Canyon Creek upstream of 19th Street in coordination with flood mitigation improvements and the Violet Park site development. In 2020-2022, funding (\$270,440 per year) for these types of improvements is shown for Bear Canyon Creek and Skunk Creek. An additional \$50,041 is shown for smaller projects that help meet more than one objective of the Greenways Program.

Project Phasing

Public Process

None

DET/Impact Fees

Interdepartmental and Interagency Collaboration

None

Change From Past CIP

None

Capital Funding Plan

Fund(s)	Revised 2016 Budget - Current Year	2017 Requested Funding	2018	2019	2020	2021	2022
Lottery	125441.00	\$151,067	\$151,067	\$151,067	\$151,067	\$151,067	\$151,067
					Funding to Completion \$0	Future Unfunded \$0	
Stormwater & Flood Mgt Utility	97500.00	\$97,500	\$97,500	\$97,500	\$97,500	\$97,500	\$97,500
					Funding to Completion \$0	Future Unfunded \$0	
Transportation	97500.00	\$97,500	\$97,500	\$97,500	\$97,500	\$97,500	\$97,500
					Funding to Completion \$0	Future Unfunded \$0	

Total Funding Plan: \$2,243,087

Additional Annual Operating and Maintenance

Additional Annual O&M:	\$0	Funding Source for O&M:
Additional Annual O&M Description:		
N/A		

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Appendix A, UNFUNDED PROJECTS

2017–2022 Capital Improvement Program

Capital Funding History and Future Approach to Unfunded Projects

The provision of adequate urban facilities and services to support the community’s quality of life is a core tenet of the Boulder Valley Comprehensive Plan. The Capital Improvement Program is a major tool for coordinating and targeting public capital expenditures within changing budget constraints. The goal is to maintain and, in some cases, enhance service levels and standards over time, with new growth paying a fair share of the costs.

Historical Funding Patterns in Boulder

The city has a rich history of investing in the community and its quality of life. Prior to the 2000s, the community consistently invested significant resources in capital facilities. Funding was provided through a combination of ballot measures for specific facilities and land purchases, federal funds, and discretionary revenues. Examples of investments include:

- Buying park lands and open space
- Providing and upgrading public facilities such as libraries, recreation centers and sports fields
- Building places for community business and services such as the municipal campus buildings, and operations centers, for example, the “Yards”
- Building multimodal community connections such as the Greenways system, bikeways, and intersection improvements
- Investing to create special places like the Pearl Street Mall and Chautauqua area.

Today, community members and visitors continue to benefit from these many facilities and lands on a regular basis.

The 2000s, by contrast, were often economically difficult at local, regional, national, and even global levels. The cost of delivering services and taking care of our infrastructure has increased dramatically. Global demand has resulted in energy and construction costs far outpacing the



consumer price index. There is currently no sign that there will be a return to historic prices. At the same time, there have been two economic declines, increased regional competition, and cultural change in shopping habits impacting the revenue side of the equation. The city's revenue in absolute dollars has not yet returned to where it was in 2000. Furthermore, the purchasing power of current funding is significantly less than in 2000.

Continued and ongoing CIP funding exists in certain areas through enterprise funds (e.g. Water, Wastewater, Stormwater/Flood funds), funds with dedicated tax revenues earmarked for capital investment (e.g. Permanent Parks fund) and funds with dedicated taxes or fees intended to ensure that growth pays its way (e.g. Development Excise Tax and impact fees). These sources are dependent on numerous factors, including economic conditions and approved utility rates, and cover only a portion of capital needs in the city, however, they have been steady sources for capital investment over time.

Recent Increases in Capital Funding

In 2011 the city engaged in a capital investment strategy. At council's direction, staff engaged a stakeholder group and collected public feedback on capital investment in the city. The result of this was a voter approved capital bond (see Special Highlight: Capital Improvement Bond section of this document), which has provided over \$50 million dollars for capital investment in the city. The 20-year debt service for this is being covered from operating General Fund dollars.

A second round of the capital investment strategy was put on hold in 2012, as costs and scopes for additional potential capital projects were not yet fully known and polling did not support another ballot issue at that time. However, work continued to identify capital needs across the city with the Comprehensive Financial Strategy (CFS) project. The initial work of the CFS, capital phase involved looking at capital needs and making recommendations to council for short-term capital project funding. Additionally the CFS looked at larger infrastructure investment needs, long-term capital deficiencies, place-making capital investment and long-term operating needs.

City staff incorporated information learned from the 2013 Flood in this strategic work. Through the 2015 budget process and in response to community feedback, utility rates were adjusted to perform utility system-wide asset assessment and accelerate maintenance and replacement work, especially in the wastewater and stormwater/flood management areas. This is reflected in current utility CIP funding levels.



In November 2014, Boulder voters passed the Community, Culture and Safety tax. This temporary, 0.3 percent sales and use tax increase over three years will provide more than \$27 million to improve community spaces, bolster cultural projects and organizations, and enhance safety in and around the downtown and University Hill. The passage of this tax addressed only a portion of the capital needs identified in the CFS and was targeted to specific capital enhancements.

In December of 2015 the city secured \$40 million in debt financing to acquire the Boulder Community Health /Broadway campus site, a significant opportunity and capital investment for the future of the city. Increased property taxes as a result of a increased, post-recession assessment in 2015 are being used to cover the debt service for the next 20 years.

Strategic Planning for Unfunded Projects

Moving forward, the intention is to build on the efforts of the past decade and establish a purposeful and continuous process for capital investment to support the city's vision. The first step, begun last year, is to perform a citywide facility and asset assessment. Next steps include developing an ongoing process for planning, funding and scheduling necessary maintenance and replacement of all capital assets. The process is underway and is expected to take a few years to complete with the goal of having a strategic approach to citywide capital planning that is integrated with the city's comprehensive plan and long term vision. This begins with establishing a baseline, developing a consistent process and ongoing system for prioritizing capital projects for asset maintenance as well as emerging needs. The strategic approach will recognize the interconnectedness of capital investment and operating planning to provide the most efficient and effective public service, meeting community needs now and in the future.

Finally, in conjunction with ongoing operating analysis and the review of the long-term financial structural gap, and understanding capital funding gaps identified through the asset assessment and capital strategy work, the city will be exploring other options, such as creating a capital fund with annual contributions from ongoing revenues, to address capital needs.

Unfunded Projects

In each department's section of this document, departments have identified key unfunded projects and emerging needs. These items have been identified over time from the capital



investment strategy work, department strategic and master plans, CFS analysis, information learned from the September 2013 Flood, and public input. The lists are not exhaustive (and dollar amounts are very rough estimates where they are available at all), but rather they illustrate the challenges and opportunities that lie ahead. Existing and future funding is anticipated to be able to address the emerging and long-term capital needs in Utilities and OSMP, although funding constraints impact the timing of capital investment. It is anticipated that the upcoming work on an asset assessment inventory, in conjunction with ongoing capital investment strategic work and the updated Boulder Valley Comprehensive Plan, will lay out a more comprehensive list of unfunded capital, as well as options to address the needs.

The table below comes from information provided to council in May, 2016, relating to major unfunded projects that are being considered and/or will need funding in the next five to ten years. This table includes only the capital related projects from that list (the list also included non-capital related operating projects). Some of the items are included in the unfunded sections of department overviews, however this list is comprised of items considered to be the known areas of **significant** potential investment needs in the near- to mid- term.

Along with the strategic approach noted above, the city will be considering various funding options, including the potential for regional partnerships and public/private partnerships, as well as new revenues, to meet community priorities in capital investment.

Table A-1: PARTIAL LIST OF UNFUNDED PROJECTS

Category	Capital Cost	New Operating Cost	Comments
Fire Station #3	\$20M	\$500K	
Scott Carpenter Aquatics Facility renovation	Unfunded \$5-\$7M (Funded \$8M)	To Be Determined (TBD)	
Valmont City Park South new facility development	Unfunded \$44M (Funded \$4M)	TBD	
Mapleton Park redevelopment	Unfunded \$7.3M (Funded \$0)	TBD	
BCH property	\$100M rough estimate	Unknown at this time	903 and 955 Alpine? \$6M?
Boulder Energy Future	Transition Costs TBD	Transition Costs TBD	
Housing	\$5 to \$7M annually?		Unmet needs
Ponderosa purchase	\$5M purchase		Future infrastructure unknown though considered to be major
Arts		\$1.5M to \$2M annually	Estimate only at this time
Broadband	Unknown at this time	Unknown at this time	Depends on model used
Fire stations – all others	\$25M	\$1.1M	
Civic Area	Estimate unknown at this time – will be significant	Unknown at this time (Downtown heavy use park – higher cost per acre)	
Parking Garage on the Hill	Certificate of Participation (COPs) - \$19M	Will depend on actual operating results of the garage	
Police Master Plan	Office space 30,000 sq. ft. \$16M+	Unknown at this time	
Radio Infrastructure	\$6M could be more as more services are added	Unknown at this time	
Facilities maintenance backlog	More will be known upon completion of asset assessment	Unknown at this time. Some maintenance could result in operating savings.	
Transportation maintenance backlog	See TMP Action and Vision plans		

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City of Boulder

Appendix B, CEAP PROJECTS

2017–2022 Capital Improvement Program



Policies and goals in the BVCP, subcommunity and area plans guide planning for all city services and facilities. Master plans identify specific facility needs to correct existing facility deficiencies, to enhance existing facilities and services, and to provide new facilities to meet community goals and growth needs.

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 2017–2022 CIP are recommended to complete a Community and Environmental Assessment Process (CEAP).

Open Space and Mountain Parks Department

- Cultural Resource/Facility Restoration*
- Visitor Infrastructure Amenities*
- *Other projects are covered under TSA implantation*

Parks and Recreation Department

- Boulder Reservoir 51st Street Path
- Tom Watson Park Enhancement
- Violet Neighborhood Park (CEAP pending, in conjunction with Fourmile)

Transportation Division

- Broadway Reconstruction (Violet to US36)*

Appendix B: CEAP Projects



- 30th and Colorado Ave. Ped/Bike Underpass* (*analysis likely in corridor study*)
- 19th Street Complete Streets (Norwood to Sumac) anticipated starting 3Q 2016

Utilities Division / Tributary Greenways

- Barker Dam Hydroelectric and Dam outlet
- Carter Lake Pipeline NCWCD Conveyance & Carter Lake Hydroelectric
- Fourmile Canyon Creek Flood Mitigation – Upstream of Upland
- Goose Creek 19th to Folsom
- Lakewood Pipeline
- Wittemyer Ponds*

The following are flood mitigation plans in their early stages. As specific projects and their scope are identified the need for CEAP will be evaluated in annual process.

- Bear Canyon Creek Flood Mitigation
- Boulder Creek Flood Mitigation
- Gregory Creek Flood Mitigation
- Skunk Creek Flood Mitigation
- Twomile Canyon Creek Flood Mitigation

**As the scope of work is defined the necessity of a CEAP or other public review will be determined.*

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