CITY OF BOULDER

WATER RESOURCES ADVISORY BOARD
AGENDA ITEM

MEETING DATE: May 16, 2016

AGENDA TITLE: Information Item - Draft Proposed 2017 Utilities Budget (Water, Wastewater and Stormwater/ Flood Management) including the 6-year Capital Improvement Program (CIP)

PRESENTERS:
Jeff Arthur, Director of Public Works for Utilities
Ken Baird, Utilities Financial Manager
Douglas Sullivan, Acting Principal Engineer – Water, Wastewater, and Stormwater
Annie Noble, Acting Principal Engineer – Flood and Greenways

EXECUTIVE SUMMARY:

As part of the city's annual budget process, Utilities develops a six-year planning budget, this year for the time period of 2017 through 2022. The Water Resources Advisory Board (WRAB) role in this process is defined in the Boulder Revised Code: ". . . to review all environmental assessments and capital improvements conducted or proposed by the utilities division." Utilities staff has formulated initial revenue and expenditure projections for each of the three utility funds through the year 2022. Within the budget process, City Council approves and appropriates funds only for the first year, 2017.

WRAB will be asked to make a recommendation to City Council regarding the 2017-2022 CIP at its June meeting. The Planning Board will review the complete city CIP, including utilities, in July. City Council will discuss the CIP in August at a study session, and the overall budget is scheduled to be adopted by City Council in October.

This packet contains the draft proposed 2017 Utilities Budget and 2017-2022 Utilities CIP. The fund financials (**Attachment A**) have been updated to reflect actual revenues and expenditures for 2015, and the revised budget for 2016. At this point 2015 financial information is unaudited and may have what are expected to be small adjustments. The operating budget development is in the early stages of development and may have further revisions. The draft proposed CIP spreadsheets for Water, Wastewater and Stormwater/Flood Management are included in **Attachment B**.

FISCAL IMPACTS:

Based on updates to the CIP and updated Fund Financials, staff is recommending rate increases of 8% in the Water Fund, 5% in Wastewater, and 8% in Stormwater/Flood Management. These were the anticipated increases for 2017 based on the six year CIP presented through the 2016 budget process.

BOARD AND PUBLIC FEEDBACK:

Staff conducted an open house during the March 2016 WRAB meeting during which priority projects were highlighted. Staff presented additional information at the April 2016 WRAB meeting in response to WRAB questions from the March meeting. During the April meeting, WRAB had questions about the levels of service for the three Utilities. WRAB and staff also discussed the potential to generate additional revenue in the context of anticipated expenditures.

Concerning the levels of service, following is a list Utilities master plans, including links to the respective web pages, and highlights of some associated levels of service (LOS).

- Water supply - Source Water Master Plan
  LOS – defined by reliability criteria that prescribe different supply levels for droughts of progressively increasing severity (up to 20-year drought - meet all supply needs; up to 100-year drought - reduced supply; up to 1,000-year drought - meet essential indoor and emergency supply needs)
- Water treatment and water distribution system – Treated Water Master Plan
  LOS – system capacity of 56 MGD.
- Water quality program – Water Quality Strategic Plan
  LOS – meet all state and federal requirements for water, wastewater and stormwater.
- Major Flood and Drainageways – Comprehensive Flood and Stormwater Utility Master Plan
  LOS - mitigate for the 100-year flood risk subject to economic feasibility, community support and cost benefit analysis.
- Stormwater collection system – Stormwater Master Plan
  LOS – capacity for a storm with a 2-year recurrence interval for residential streets and a 5-year recurrence interval for commercial, industrial and collector and arterial roadways.
- Wastewater collection system – Wastewater Collection System Master Plan
  LOS - adequate system capacity to handle infiltration and inflow from a storm with a 25-year recurrence interval.
- Wastewater Treatment - Wastewater Treatment Plant Master Plan
  LOS – hydraulic plant capacity (25 million gallons per day) and capacity for organic load.

Additional Utilities policy guidance can be found in the Boulder Valley Comprehensive Plan (Urban Services Criteria and Standards, page 89 and elsewhere). **Attachment C** contains information on overall guiding principles and project prioritization.

Concerning the possible sale of city water or water rights to generate short term revenue, WRAB and staff discussed the need to evaluate any significant changes in the context of associated master plans, the Boulder Revised Code, and the City Charter. The City Charter states that, "Every franchise, right, or privilege which has been or which may be hereafter granted conveying any right, permission, or privilege to the use of the water belonging to the city or to its water system shall always be subject to the most comprehensive oversight, management, and control in

every particular by the city; and the rights of the city to such control for municipal purposes are retained by the city in order that nothing shall ever be done by any grantee or assignee of any such franchise, right, or privilege which shall in any way interfere with the successful operation of the waterworks of the city, or which shall, or which shall tend to, divert, impair, or render the same inadequate for the complete performance of the trust for the people under which such waterworks are held by the city." Further the Boulder Revised Code and charter establishes specific parameters related to use of city water including the "Blue Line" restriction on service area, a ban on use of city water for hydraulic fracturing, and the agricultural lease program. A WRAB proposal to update master plans, codes, or broader city policies would be best identified for City Council work program consideration as part of WRAB's annual priorities letter.

Staff is continuing to assess revenue opportunities within the boundaries of existing codes and policies. Examples include evaluating agricultural lease rates, greater utilization of hydroelectric potential, and reviewing miscellaneous fees for service.

A public hearing and recommendation is scheduled for the June WRAB meeting. At the June meeting, staff will request that the WRAB provide a final recommendation to City Council regarding the proposed 2017-2022 CIP and associated rates changes.

BACKGROUND and ANALYSIS:

The preliminary draft 2017 budget provided with this memorandum reflects the following billed revenue increases: 8% Water, 5% Wastewater, and 8% Stormwater/Flood Management. The following table summarizes the 2016 adopted increase and preliminary projections for 2017-2019.

Table 1 – Proposed Rate Increases

	2016	**2017**	2018	2019
Water	8%	**8%**	8%	8%
Wastewater	5%	**5%**	5%	7%
Stormwater/Flood Management	4%	**8%**	8%	7%

Single Family Residential Customer Bill Impact

The proposed preliminary 2017 revenue increases (8%-5%-8%) would increase a typical residential customer's monthly utility bill by $5.90 or an increase of $70.80 annually. Table 2 provides a breakdown of the potential increases by utility, and Table 3 shows commercial customer impacts.

Table 2 – Average Monthly Bill Impacts

	Monthly Bill 2016 Rates	Monthly Bill 2017 Rates	Monthly Difference
Water	$39.57	$42.73	$3.16
Wastewater	$31.75	$33.37	$1.62
Stormwater/ Flood Mgmt	$14.00	$15.12	$1.12
Total	**$85.32**	**$91.22**	**$5.90**

Table 3 – Average Monthly Bill Impacts

CUSTOMER	Combined Monthly Bill 2016 Rates	Combined Monthly Bill 2017 Rates	Monthly Difference
Single Family Residence	$85	$91	$6
Hotel	$5,091	$5,419	$328
Grocery Store	$10,543	$11,261	$718
Large Format Retailer	$3,307	$3,546	$239
Pearl Street Retail	$157	$167	$10
Industrial/Institutional	$59,461	$63,672	$4,211
Downtown Restaurant	$160	$170	$10
Downtown Restaurant/Brewery	$999	$1,059	$61

Impact of Rate Changes

The impact of a 1% increase in revenue varies substantially across the three funds:

Table 4–Rate Impact	1%	2%	3%
Water	$250,000	$500,000	$750,000
Wastewater	$200,000	$400,000	$600,000
Stormwater / Flood Mgmt	$ 100,000	$200,000	$300,000

Additional information about other customer classes and cost comparisons will be provided as part of the staff presentation. As a point of reference, $100,000 provides for debt service coverage on a bond of approximately $1,000,000.

ANTICIPATED REVENUE BONDS:

The current 2017-2022 utility fund financials reflect several bond issuances (and associated debt payments) to fund the following capital projects:

Water:

1. Southern Water Supply Pipeline II (Carter Lake Pipeline) and the 2018 Waterline Replacement budget ($35.3 million in 2018)
2. Barker Dam Outlet ($8.5 million in 2020) to fund repairs to the outlet works

Wastewater:

1. Sanitary Sewer Bond ($13.7 million in 2018) to fund realignment of large diameter interceptor pipe and replacement of the Foothills and Baseline trunk sewer.
2. WWTF Improvements ($28.4 million in 2020) to fund phosphorus treatment to meet Regulation 85 requirements and other WWTF asset management priorities improvements

Stormwater and Flood Management**:**

1. South Boulder Creek Improvements ($25.3 million in 2018) to fund improvements designed to mitigate flood hazards in the South Boulder Creek West Valley area

The following table summarizes the debt obligations of the utilities, the year the debt is retired and the average annual debt payment. Items shown in italics are projects that are anticipated to be funded by issuing bonds. The decision to debt finance versus cash finance capital projects is generally determined by the total project cost and the timeline for completing the improvements. For example, a major improvement at a treatment facility is large enough and done within a short enough timeframe to justify bonding. Improvements to the distribution system (water pipes) are on an annual replacement program where cash funding makes more sense. Planning for issuing debt for projects includes consideration of maintaining coverage ratios as required by bond covenants and also aiming to maintain high bond ratings to keep interest costs low. It is also important to not use up all bonding capacity within the utilities since new needs can develop from regulatory requirements or updates to asset condition.

Table 5 – Debt Obligations

Utility	Projects	Year Debt is Retired	Approximate Annual Debt Payment
Water	Boulder Reservoir WTF Improvements	2016	$858,000
	Multiple Projects including Silver Lake Pipeline, Barker Purchase	2019	$2,524,000
	Lakewood Pipeline	2021	$2,066,000
	Betasso WTP Imp.	2036	$2,259,000
	Carter Lake Pipeline and Waterline Replacement (2018)	*2038*	*$3,356,000*
	Barker Dam Improvements 2020)	*2040*	*$994,000*
Wastewater	WWTF Improvements	2025	$3,151,000
	WWTF Improvements	2030	$672,000
	Sanitary Sewer Pipe & WWTF	2035	$679,000
	Interceptor Pipe	2038	$1,085,000
	WWTP Improvements – Reg 85 (2020)	*2040*	*$2,684,000*
Storm/Flood	Multiple projects including Goose Creek Improvements	2018	$383,000
	Wonderland Creek and Four Mile Canyon Creek Imp. (2015)	2035	$1,590,000
	South Boulder Creek Imp. (2018)	*2037*	*$2,375,000*

The Water Utility also pays a portion of the Northern Colorado Water Conservancy District's debt related to the Windy Gap project. This debt will be retired in 2017 and Boulder's annual debt payment is approximately $1,650,000. The use of a 20-year CIP and longer term asset management approach enables the city to limit overlapping of projects and debt service and minimize associated impacts to rates.

The utility continues to maintain a high credit rating, most recently Aa1 from Moody's and AAA from Standard and Poor's. The rating agencies have consistently noted sound financial practices, one of the most important of which is maintaining sufficient reserves, in issuing there ratings. High bond ratings allow the city to access favorable interest rates and save significant dollars on debt financed projects.

Changes From the 2016-2021 CIP

See **Attachment B** for the proposed 2017-2022 Water, Wastewater, and Stormwater/Flood Utility CIP's. Key changes from last year's plan are highlighted below.

Water Utility

- The Barker Gravity Pipeline Repair program funding has been increased by approximately 25% annually for the 6-yr CIP. This increase represents more accurate cost estimating based on the 2015/2016 winter season work completed.
- Funding for the Treated Water Transmission system program has been identified in the 6-yr CIP. This program will fund the replacement of water pipes greater than 12-inch diameter on an annual basis. Funding will begin at $2M per year and will be escalated at 4% annually in the CIP.
- The Devils Thumb water storage tank improvements have been funded in 2022 at $1.5M.

Wastewater Utility

- The WWTF Phosphorus Improvements project funding, which is identified in 2020, has been changed to reflect a likely reduction in design scope. This project's construction cost was originally estimated $18.5M and has been reduced to $15M. Funding for the project's other phases including preliminary design, final design, and construction phase services is allocated in 2018, 2019 and 2020 respectively. The total project cost is currently estimated at approximately $20M.
- Funding for the WWTF primary clarifiers rehabilitation project has been added to the 6-yr CIP. This project involves the replacement of the drive mechanisms for primary clarifiers 1-3, and is identified in the WWTF asset management planning tool. Funding for the project's design, construction, and construction phase services is identified in 2019, 2020 and 2021 respectively. The total project cost is estimated at approximately $11M.
- The sanitary sewer interceptor rehabilitation project was originally to be funded with the $10M Wastewater bond that was secured in 2015. This project's scope has changed to address the sewer's alignment vulnerability with Boulder Creek. A larger more complex project has been identified to realign the main interceptor away from Boulder Creek. This project would require additional funding compared to the original rehabilitation project. The total cost of the interceptor alignment project is estimated at approximately $20M. A wastewater bond for an additional $10M has been added to the CIP in 2018 to fund this project.
- The 2016 Wastewater Collection System Master Plan (WWCSMP) has identified new high priority projects. The condition assessment completed after the September 2013 flood event identified several high priority projects that have either hydraulic limitations or significant internal corrosion issues. Two of these projects have been added to the 6-yr CIP.
    a. The Lower Goose Creek trunk sewer is identified for replacement/rehabilitation in 2017 with an estimated cost of $4M. This project will be funded primarily from the annual sanitary sewer rehabilitation program.
    b. The Foothills and Baseline trunk sewer is identified in 2018 with an estimated cost of $3.5M. This project will likely be funded through bond proceeds at the time of the interceptor realignment project.
- The sanitary sewer condition assessment program funding has been reduced from $750,000 to $600,000 annually. Utilities staff anticipates moving to a 4-year condition assessment cycle with City maintenance staff assuming greater responsibilities.

Stormwater and 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.
- The 2016 Stormwater Master Plan (SMP) has reconfirmed the high priority projects identified in the previous master plan. The Upper Goose Creek area remains the highest priority storm drainage improvements project. The annual cash funding that existed in previous CIP's has been removed and replaced with a bond funded project. The bond project is identified outside the 6-year CIP because Goose Creek drainageway improvements between 19th Street and Folsom Avenue must be completed before the storm drainage work can begin. The Upper Goose Creek storm drainage improvements project is identified in the 2023 CIP and is estimated at approximately $14M.
- Other 2016 SMP recommended improvements projects include the following:
    a. Storm drainage improvements in downtown Boulder along Pearl Street between 16th Street and 21st Street are funded in 2021 at approximately $4M.
    b. Storm sewer improvements in the vicinity of Broadway and Fourmile Creek are funded in 2021 at approximately $400,000.
    c. Storm sewer improvements in the vicinity of Ithaca and Wildwood are funded in 2021 at approximately $350,000.

The city has been working for many years to reduce the flood threat by implementing major drainageway projects. Flood mitigation master plans have been completed for most of the major draiangeways. 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. These plans will help identify additional future flood mitigation projects. Over $160 million of major drainageway improvements have been identified.

BUDGET SCHEDULE:

The current schedule of major budget milestones is provided below. Elements involving the WRAB are highlighted in bold italics.

Milestone	Date
WRAB meeting – review Draft CIP	***May 16, 2016***
Proposed Budget Submittal to City Manager	May 31, 2016
WRAB Recommendation on CIP/Budget	***June 20, 2016***
Planning Board CIP Hearing	July 28, 2016
City Council Study Session on Budget (CIP)	Aug. 9, 2016
City Council Study Session on Budget	Sept. 13, 2016

City Council Study Session on Budget (if needed)	Sept. 27, 2016
City Council Consideration/Adoption of Budget	Oct. 4 and Oct. 18, 2016

NEXT STEPS:

Staff will present additional information to the WRAB at the May 16 meeting and staff is seeking feedback on the draft proposed CIP, updated financial information, and potential rate impacts. This feedback will be considered in finalizing the proposed budget that will be presented at the June 20, 2016 WRAB meeting. At that meeting, staff will request that WRAB provide a final recommendation concerning the proposed 2017-2022 CIP to Planning Board and City Council.

Attachments:

A: Fund Financials – Water, Wastewater, Stormwater/Flood Management
B: Draft Proposed 2017-2022 CIP, Water, Wastewater, Stormwater/Flood Management
C: CIP Guiding Principles and Project Prioritization

Attachment A

PROPOSED
CITY OF BOULDER
2017 DRAFT FUND FINANCIAL

	A	B	D	F	H	J	L	N	P	R
1	**WATER UTILITY**									
3										
5			**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
6			**Actual**	**Revised**	**Proposed**	**Projected**	**Projected**	**Projected**	**Projected**	**Projected**
7										
8	**Beginning of Year Fund Balance**		$ 37,434,364	$ 37,691,595	$ 29,508,994	$ 27,361,701	$ 31,038,784	$ 29,659,129	$ 29,719,256	$ 29,650,408
9										
10		**Sources of Funds**								
11		Operating-	5.0%	8.0%	8.0%	8.0%	8.0%	7.0%	7.0%	5.0%
12		Sale of Water to General Cust	$ 22,378,243	$ 23,528,592	$ 25,461,486	$ 27,553,185	$ 29,816,739	$ 32,266,266	$ 34,593,739	$ 37,089,115
13		Projected Rate Increase		1,882,287	2,036,919	2,204,255	2,385,339	2,258,639	2,421,562	1,854,456
14		Bulk/Irrigation Water Sales	165,835	143,050	143,050	143,050	143,050	143,050	143,050	143,050
15		Hydroelectric Revenue	2,009,812	1,760,609	1,711,739	1,847,009	1,847,009	1,847,009	1,847,009	1,847,009
16		Miscellaneous Operating Revenues	(44,463)	25,000	25,000	25,000	25,000	25,000	25,000	25,000
19		Non-Operating--								
20		Plant Investment Fees	6,273,744	2,500,000	2,500,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000
21		Connection Charges	213,763	130,000	130,000	130,000	130,000	130,000	130,000	130,000
22		Special Assessments	(27,039)	5,000	5,000	5,000	5,000	5,000	5,000	5,000
23		Federal, State, County Grants	100,879	919,121	-	-	-	-	-	-
24		Interest on Investments	191,664	252,605	295,090	342,021	387,985	444,887	445,789	444,756
25		Rent, assessments and other misc revenues	84,338	20,500	20,500	20,500	20,500	20,500	20,500	20,500
26		Sale of Real Estate	606,989	-	-	-	-	-	-	-
27		Transfer from General Fund - Fire Training Center	92,785	92,785	92,785	92,785	92,785	92,785	92,785	92,785
28		Projected Bond Proceeds	-	35,350,000	-	35,676,562	-	8,455,509	-	-
30										
31		**Total Sources of Funds**	$32,046,550	$66,609,549	$ 32,421,568	$ 70,239,367	$ 37,053,407	$ 47,888,644	$ 41,924,433	$ 43,851,670
32										
33		**Uses of Funds**								
34		Operating-								
35		Administration	$ 891,099	$ 1,003,052	$ 1,033,144	$ 1,064,138	$ 1,096,062	$ 1,128,944	$ 1,162,812	$ 1,197,697
36		Planning and Project Management	452,937	611,220	629,557	648,443	667,897	687,933	708,571	729,829
37		Water Resources and Hydroelectric Operations	2,649,972	2,754,443	2,928,076	3,065,919	3,214,896	3,375,343	3,547,603	3,654,031
38		Water Treatment	4,827,057	4,766,150	4,909,135	5,056,409	5,208,101	5,364,344	5,525,274	5,691,032
39		Water Quality and Environmental Svcs	1,326,270	1,415,513	1,457,978	1,501,718	1,546,769	1,593,172	1,640,968	1,690,197
40		System Maintenance	3,129,976	3,227,533	3,324,359	3,424,090	3,526,812	3,632,617	3,741,595	3,853,843
41		Windy Gap Payment	2,275,501	2,618,958	2,314,181	251,200	258,736	266,498	274,493	282,728
44		Sick and Vacation Accrual	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
45		TOTAL OPERATING USES OF FUNDS	$ 15,652,812	$ 16,496,869	$16,696,429	$15,111,916	$15,619,273	$16,148,851	$16,701,317	$17,199,357
46										

Attachment A

PROPOSED
CITY OF BOULDER
2017 DRAFT FUND FINANCIAL

	A	B	D	F	H	J	L	N	P	R
1	**WATER UTILITY**									
3										
5			**2015 Actual**	**2016 Revised**	**2017 Proposed**	**2018 Projected**	**2019 Projected**	**2020 Projected**	**2021 Projected**	**2022 Projected**
6										
47		Debt-								
48		BRWTP 1996 Revenue Bond; Refunding in 2006	857,708	858,531	-	-	-	-	-	-
49		Refunding of the 1999 and 2000 Revenue Bonds	2,522,054	2,517,388	2,524,233	2,524,650	1,375,102	-	-	-
50		Lakewood 2001 Rev Bond; Refunded in 2012	2,065,733	2,065,950	2,065,333	2,072,083	2,080,817	2,081,367	2,088,883	-
52		Projected Bond-Betasso WTP Improvements	-	1,090,143	2,259,081	2,260,181	2,255,681	2,260,681	2,259,981	2,258,681
53		Projected Bond-NCWCD Conveyance Line	-	-	-	3,356,023	3,356,023	3,356,023	3,356,023	3,356,023
55		Projected Bond - Barker Dam	-	-	-	-	-	793,773	793,773	793,773
57		TOTAL DEBT SERVICE	$5,445,495	6,532,012	6,848,647	10,212,937	9,067,623	8,491,845	$8,498,661	$6,408,478
58										
59		Transfers -								
60		Cost Allocation	1,020,728	1,189,353	1,500,000	1,650,000	1,815,000	1,996,500	2,196,150	2,415,765
61		Planning & Development Services	218,941	225,509	232,275	239,243	246,420	253,813	261,427	269,270
62		General Fund - City Attorney	59,665	58,937	61,294	63,746	66,296	68,285	70,334	72,444
63		TOTAL TRANSFERS OUT	$1,299,334	$1,473,799	$1,793,569	$1,952,989	$2,127,716	$2,318,598	$2,527,911	$2,757,478
65										
66		Capital	9,391,678	$10,313,251	9,330,215	3,707,880	11,718,449	12,513,715	14,365,392	15,628,528
67										
68		Projected Bond - Betasso WTP IMP	-	$35,000,000	-	-	-	-	-	-
70		Projected Bond - NCWCD Conveyance & Distributions M	-	-	-	$35,326,562	-	-	-	-
72		Projected Bond - Barker Dam/Boulder Reservoir WTP	-	-	-	-	-	$8,355,509	-	-
74		Projected Bond - Issuance Costs	-	$350,000	-	$350,000	-	$100,000	-	-
75		Encumbrances, Carryover and Adjustments to Base	-	4,726,219	-	-	-	-	-	-
76										
77		**Total Uses of Funds**	$ 31,789,319	$74,892,150	$34,668,861	$66,662,284	$ 38,533,061	$47,928,518	$ 42,093,281	$ 41,993,841
78										
79		Sick/Vacation Accrual Adjustment	$ -	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
80										
81	**Ending Fund Balance Before Reserves**		$ 37,691,595	$ 29,508,994	$ 27,361,701	$ 31,038,784	$ 29,659,129	$ 29,719,256	$ 29,650,408	$ 31,608,237
82										
83		**Reserves**								
84		Bond Reserve	$ 3,034,796	$ 3,034,796	$ 2,181,429	$ 2,181,429	$ 2,181,429	$ 1,600,100	$ 1,600,100	$ 1,600,100
85		Lakewood Pipeline Remediation Reserve	15,218,434	15,837,309	16,582,687	17,468,028	18,055,455	18,978,041	19,923,957	20,427,803
86		FEMA Deobligation Reserve	87,951	87,951	87,951	87,951	87,951	87,951	87,951	87,951
87		Sick/Vacation/Bonus Reserve	530,852	546,778	563,181	580,076	597,479	615,403	633,865	652,881
88		Pay Period 27 Reserve	235,109	286,109	316,109	346,109	397,109	448,109	499,109	550,109
89		Operating Reserve	4,238,037	4,492,667	4,622,500	4,266,226	4,436,747	4,616,862	4,807,307	4,989,209
90		Capital Reserve	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
91		**Total Reserves**	$ 25,345,178	$ 26,285,609	$ 26,353,856	$ 26,929,820	$ 27,756,170	$ 28,346,466	$ 29,552,289	$ 30,308,053
92										
93	**Ending Fund Balance After Reserves**		**$ 12,346,417**	**$ 3,223,384**	**$ 1,007,845**	**$ 4,108,964**	**$ 1,902,959**	**$ 1,372,790**	**$ 98,119**	**$ 1,300,184**
94										
95	**Note:**									
96	Operating reserve levels are based on industry standards and are maintained for revenue bonds, revenue fluctuations (weather and water usage impacts) and the capital intensive nature of the utility.									

PROPOSED
CITY OF BOULDER
2017 DRAFT FUND FINANCIAL

WASTEWATER UTILITY

	2015 Actual	2016 Revised	2017 Proposed	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Beginning Fund Balance	$ 13,631,545	$ 27,881,684	$ 8,653,758	$ 6,748,882	$ 7,317,583	$ 5,590,343	$ 6,090,245	$ 5,844,021
Sources of Funds								
Operating-	30.0%	5.0%	5.0%	5.0%	7.0%	6.0%	5.0%	5.0%
Sewer Charges to General Customers	$ 17,527,761	$ 18,400,711	$ 19,359,388	$ 20,368,012	$ 21,429,186	$ 22,975,087	$ 24,402,300	$ 25,673,659
Projected Rate Increase		920,036	967,969	1,018,401	1,500,043	1,378,505	1,220,115	1,283,683
Surcharge/ Pretreatment Fees	142,353	142,353	142,353	142,353	142,353	142,353	142,353	142,353
TOTAL OPERATING SOURCES OF FUNDS	17,670,114	19,463,100	20,469,711	21,528,766	23,071,582	24,495,946	25,764,768	27,099,695
Non-Operating-								
Plant Investment Fees	2,097,795	750,000	750,000	750,000	750,000	750,000	750,000	750,000
Connection Charges	10,196	10,196	10,196	10,196	10,196	10,196	10,196	10,196
Special Assessments	23,051	23,051	23,051	23,051	23,051	23,051	23,051	23,051
Federal & State Grants	851,299	1,049,855	-	-	-	-	-	-
Interest on Investments	110,154	557,634	216,344	202,466	219,527	167,710	182,707	175,321
Rent and other miscellaneous revenue	657	657	657	657	657	657	657	657
Sale of Real Estate - Yards Masterplan	303,495	-	-	-	-	-	-	-
Bond Proceeds	10,257,039	-	-	13,681,920	-	28,375,000	-	-
Total Sources of Funds	$ 31,323,800	$ 21,854,493	$ 21,469,959	$ 36,197,057	$ 24,075,014	$ 53,822,560	$ 26,731,380	$ 28,058,921
Uses of Funds								
Operating-								
Administration	$ 559,767	$ 632,454	$ 651,428	$ 670,970	$ 691,100	$ 711,833	$ 733,188	$ 755,183
Planning and Project Management	209,775	404,733	416,875	429,381	442,263	455,531	469,196	483,272
Wastewater Quality & Environmental Svcs	1,153,057	1,393,904	1,435,721	1,478,793	1,523,157	1,568,851	1,615,917	1,664,394
System Maintenance	1,868,025	1,681,345	1,731,785	1,783,739	1,837,251	1,892,369	1,949,140	2,007,614
Wastewater Treatment	4,566,122	5,113,656	5,267,066	5,425,078	5,587,830	5,755,465	5,928,129	6,105,973
Sick/Vacation Accrual	75,000	75,000	77,250	79,568	81,955	84,413	86,946	89,554
TOTAL OPERATING USES OF FUNDS	8,431,746	9,301,092	9,580,125	9,867,529	10,163,554	10,468,461	10,782,515	11,105,990
Debt-								
2012 Refunding of the WWTP 2005 Revenue Bond	3,439,462	3,199,450	3,177,125	3,153,292	3,145,375	3,132,458	3,124,750	3,124,750
WWTP UV, Digester, Headworks Imp 2010 Rev Bond	672,638	673,863	670,938	672,700	674,013	669,888	671,688	670,563
WWTP Nutrient Compliance Bond 2020						2,683,750	2,683,750	2,683,750
Sanitary Sewer Rehabilitation Bond 2015	250,222	678,631	678,631	678,631	678,631	678,631	678,631	678,631
Sanitary Sewer Interceptor Bond 2018	-	-	-	1,084,554	1,084,554	1,084,554	1,084,554	1,084,554
TOTAL DEBT SERVICE	4,362,322	4,551,944	4,526,694	5,589,177	5,582,573	8,249,281	8,243,373	8,242,248

PROPOSED
CITY OF BOULDER
2017 DRAFT FUND FINANCIAL

WASTEWATER UTILITY

	2015 Actual	2016 Revised	2017 Proposed	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected
Transfers-								
Cost Allocation	756,671	879,372	923,341	969,508	1,017,983	1,068,882	1,122,326	1,178,442
Planning & Development Services	219,607	226,195	232,981	239,970	247,169	254,584	262,222	270,089
General Fund - Utilities Attorney	19,888	19,646	20,432	21,249	22,099	22,983	23,673	24,383
TOTAL TRANSFERS OUT	996,166	1,125,213	1,176,754	1,230,727	1,287,251	1,346,449	1,408,221	1,472,914
Capital Improvement Program	3,358,427	4,505,600	8,168,512	5,338,571	8,850,831	4,967,880	6,630,441	5,483,327
2011 Bond-UV, Digester, Headworks IMP	-	-	-	-	-	-	-	-
Projected Bond-WWTP Improvements	-	-	-	-	-	$28,250,000	-	-
Projected Bond-Sanitary Sewer Rehab	$0	-	-	$13,556,920	-	-		
Bond Issuance Costs	-	-	-	125,000	-	125,000	-	-
Carryover, Encumbrances and Adjustments to Base	-	21,673,571	-	-	-	-	-	-
Total Uses of Funds	$ 17,148,661	$ 41,157,420	$ 23,452,085	$ 35,707,923	$ 25,884,209	$ 53,407,071	$ 27,064,549	$ 26,304,479
Sick/Vacation Accrual Adjustment	$ 75,000	$ 75,000	$ 77,250	$ 79,568	$ 81,955	$ 84,413	$ 86,946	$ 89,554
Ending Fund Balance Before Reserves	$ 27,881,684	$ 8,653,758	$ 6,748,882	$ 7,317,583	$ 5,590,343	$ 6,090,245	$ 5,844,021	$ 7,688,017
Reserves								
Bond Reserves	$ 670,139	$ 670,139	$ 670,139	$ 670,139	$ 670,139	$ 670,139	$ 670,139	$ 670,139
FEMA Deobligation Reserve	$ 36,445	$ 36,445	$ 36,445	$ 36,445	$ 36,445	$ 36,445	$ 36,445	$ 36,445
Sick/Vacation/Bonus Reserve	620,120	638,724	657,886	677,622	697,951	718,890	740,456	762,670
Pay Period 27 Reserve	181,480	220,480	259,480	298,480	337,480	376,480	415,480	454,480
Operating Reserve	2,356,978	2,606,576	2,689,220	2,774,564	2,862,701	2,953,728	3,047,684	3,144,726
Capital Reserve	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Total Reserves	$ 4,328,717	$ 4,635,919	$ 4,776,724	$ 4,920,805	$ 5,068,271	$ 5,219,236	$ 5,373,759	$ 5,532,015
Ending Fund Balance After Reserves	**$ 23,552,967**	**$ 4,017,838**	**$ 1,972,158**	**$ 2,396,778**	**$ 522,071**	**$ 871,009**	**$ 470,262**	**$ 2,156,002**

Attachment A

PROPOSED
CITY OF BOULDER
2017 DRAFT FUND FINANCIAL

	A	B	I	K	M	O	Q	S	U	W
1	**STORMWATER/FLOOD MANAGEMENT UTILITY**									
2										
3			**2015 Actual**	**2016 Revised**	**2017 Proposed**	**2018 Projected**	**2019 Projected**	**2020 Projected**	**2021 Projected**	**2022 Projected**
4										
5										
6	**Beginning Fund Balance**		$ 15,483,367	$ 42,445,414	$ 11,312,550	$ 10,759,263	$ 7,772,450	$ 8,520,227	$ 9,667,807	$ 7,394,206
7										
8		**Sources of Funds**								
9		Operating-		4%	8%	8%	8%	8%	5%	5%
10		Service Charge Fees	$ 9,508,240	$ 9,612,708	$ 10,017,210	$ 10,840,224	$ 11,730,857	$ 12,694,665	$ 13,737,658	$ 14,453,390
11		Projected Rate Increases		384,508	801,377	867,218	938,469	1,015,573	686,883	722,670
15		Non-Operating--								
16		Plant Investment Fees	1,543,366	500,000	350,000	350,000	350,000	350,000	350,000	350,000
17		Urban Drainage District Funds	475,932	882,835	957,835	930,000	400,000	400,000	400,000	400,000
18		State and Federal Grants	193,949	4,824,498	-	-				
19		Interest on Investments	200,647	424,454	169,688	215,185	155,449	170,405	193,356	147,884
20		Intergovernmental Transfers (KICP Program)	144,200	148,526	152,982	157,571	162,298	167,167	172,182	177,348
21		Rent and other miscellaneous revenue	38,200	40,000	40,000	40,000	40,000	40,000	40,000	40,000
22		Miscellaneous nonrecurring revenue	-	-	-	-	-	-	-	-
23		Sale of Real Estate - Yards Masterplan	303,495	-	-	-	-	-	-	-
24		Projected Bonds	23,317,855	-	-	25,325,000	-	-	-	-
25		TOTAL NON-OPERATING SOURCES OF FUNDS	$26,217,644	$6,820,313	$1,670,505	$27,017,756	$1,107,747	$1,127,572	$1,155,538	$1,115,232
26										
27		**Total Sources of Funds**	$ 35,725,884	$16,817,529	$ 12,489,092	$ 38,725,199	$ 13,777,073	$ 14,837,810	$ 15,580,080	$ 16,291,292
28										
29		**Uses of Funds**								
30		Operating-								
31		Administration	$ 399,759	$ 475,855	$ 490,131	$ 504,835	$ 519,980	$ 535,579	$ 551,646	$ 568,196
32		Planning and Project Management	1,037,520	1,289,877	1,328,573	1,368,431	1,409,483	1,451,768	1,495,321	1,540,181
33		Stormwater Contract Management	62,778	49,442	50,925	52,453	54,027	55,647	57,317	59,036
34		Stormwater Quality and Education	931,174	1,060,346	1,092,156	1,124,921	1,158,669	1,193,429	1,229,232	1,266,109
35		System Maintenance	1,509,120	1,343,771	1,384,084	1,425,607	1,468,375	1,512,426	1,557,799	1,604,533
38		Sick/Vacation Accrual	50,000	50,000	51,500	53,045	54,636	56,275	57,964	59,703
39		TOTAL OPERATING USES OF FUNDS	3,990,351	4,269,291	4,397,370	4,529,291	4,665,170	4,805,125	4,949,278	5,097,757
40										
41		Debt--								
43		Refunding of the Goose Creek 1998 Revenue Bond	387,038	381,675	386,138	380,175	-	-	-	-
44		Projected Bond - South Boulder Creek	-	-	-	2,375,000	2,375,000	2,375,000	2,375,000	2,375,000
45		Projected Bond - Wonderland Creek	786,164	1,589,188	1,592,338	1,589,588	1,591,088	1,591,688	1,591,388	1,591,388
47		TOTAL DEBT SERVICE	1,173,202	1,970,863	1,978,476	4,344,763	3,966,088	3,966,688	3,966,388	3,966,388
48										
49		Transfers-								
50		Cost Allocation	246,288	284,264	312,690	343,959	378,355	416,191	457,810	503,591
51		Planning & Development Services	132,367	136,338	140,428	144,641	148,980	153,450	158,053	162,795
52		General Fund - Utilities Attorney	19,986	19,646	20,432	21,249	22,099	22,762	23,445	24,148
53		TOTAL TRANSFERS OUT	398,641	440,248	473,550	509,850	549,435	592,403	639,308	690,534

Attachment A

PROPOSED
CITY OF BOULDER
2017 DRAFT FUND FINANCIAL

	A	B	I	K	M	O	Q	S	U	W
1	**STORMWATER/FLOOD MANAGEMENT UTILITY**									
2										
3			**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
4			**Actual**	**Revised**	**Proposed**	**Projected**	**Projected**	**Projected**	**Projected**	**Projected**
54										
55										
56		Capital	$3,251,643	$5,084,480	6,244,483	$7,056,155	3,903,241	$4,382,290	8,356,670	4,250,710
58		Projected Bond - South Boulder Creek	-	-	-	$25,000,000	-	-	-	-
60		Projected Bond Issuance Costs	-	-	-	325,000	-	-	-	-
61										
62		Encumbrances, Carryover and Adjustments to Base	-	36,235,512	-	-	-	-	-	-
63										
64		**Total Uses of Funds**	$ 8,813,837	$ 48,000,394	$ 13,093,879	$ 41,765,057	$ 13,083,932	$ 13,746,505	$ 17,911,644	$ 14,005,388
65										
66		Sick and Vacation Accrual Adjustment	$ 50,000	$ 50,000	$ 51,500	$ 53,045	$ 54,636	$ 56,275	$ 57,964	$ 59,703
67										
68	**Ending Fund Balance Before Reserves**		$ 42,445,414	$ 11,312,550	$ 10,759,263	$ 7,772,450	$ 8,520,227	$ 9,667,807	$ 7,394,206	$ 9,739,812
70		**Reserves**								
71		Bond Reserves	$ 2,312,552	$ 2,312,552	$ 2,312,552	$ 4,362,568	$ 4,362,568	$ 4,362,568	$ 4,362,568	$ 4,362,568
72		Post Flood Property Acquisition	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000
73		FEMA Deobligation Reserve	41,750	41,750	41,750	41,750	41,750	41,750	41,750	41,750
74		Sick/Vacation/Bonus Reserve	59,401	61,183	63,019	64,909	66,856	68,862	70,928	73,056
75		Pay Period 27 Reserve	48,480	62,480	76,480	90,480	104,480	118,480	132,480	135,361
79		Operating Reserve	1,097,248	1,177,385	1,217,730	1,259,785	1,303,651	1,349,382	1,397,147	1,447,073
80		Capital Reserve	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
81		**Total Reserves**	$ 4,809,431	$ 4,905,350	$ 4,961,531	$ 7,069,492	$ 7,129,306	$ 7,191,042	$ 7,254,873	$ 7,309,808
82										
83	**Ending Fund Balance After Reserves**		**$37,635,983**	**$6,407,200**	**$5,797,732**	**$702,957**	**$1,390,921**	**$2,476,765**	**$ 139,333**	**$2,430,004**
84										
93	**Note:**									
94	Operating reserve levels are based on industry standards and are maintained for revenue bonds, revenue fluctuations (weather and water usage impacts) and the capital intensive nature of the utility.									

Attachment B - PROPOSED WATER CIP

	A	L	M	N	O	P	Q
1		CITY OF BOULDER					
2		DRAFT 2017-2022 CAPITAL IMPROVEMENT PROGRAM					
3		WATER UTILITY FUND					
4							
5							
6	**Assumed Inflation Rate**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
7	**PROJECT NAME**	**PROPOSED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**
8							
9	**Treated Water Pressure Reducing and Hydroelectric Facilities**						
13	Sunshine Hydro/PRV Facility	$271,875	$0	$0	$0	$0	$0
14	Pearl Street Hydro/PRV Facility	$0	$24,333	$243,331	$0	$0	$0
15	**Subtotal - Treated Water PRV and Hydro**	$271,875	$24,333	$243,331	$0	$0	$0
16							
17	**Water Treatment Facilities**						
18	Equipment Replacement	$127,000	$100,000	$100,000	$100,000	$50,000	$52,000
21	Bond Issuance Costs	$0	$350,000	$0	$100,000	$0	$0
22	Boulder Reservoir WTF	$200,000	$200,000	$0	$600,000	$0	$0
24	**Subtotal - Water Treatment Facilities**	$327,000	$650,000	$100,000	$800,000	$50,000	$52,000
25							
31							
32	**Treated Water Storage Tanks**						
36	Devil's Thumb Storage Tank	$0	$0	$0	$0	$0	$1,486,874
38	Chautauqua Storage Tank	$0	$0	$0	$0	$0	$0
39	Betasso Storage Tank	$292,465	$0	$0	$0	$0	$0
41	**Subtotal - Treated Water Storage Tanks**	$292,465	$0	$0	$0	$0	$1,486,874
42							
43	**Treated Water Distribution System**						
46	Waterline Replacement	$3,487,078	$3,626,562	$3,771,624	$3,922,489	$4,079,389	$4,242,564
47	**Subtotal - Treated Water Distribution System**	$3,487,078	$3,626,562	$3,771,624	$3,922,489	$4,079,389	$4,242,564
48							
49	**Treated Water Transmission System**						
53	Zone 1 Transmission Pipes	$0	$0	$0	$626,601	$651,665	$677,732
54	Zone 2 Transmission Pipes	$0	$0	$0	$909,016	$945,377	$983,192
55	Zone 3 Transmission Pipes	$0	$0	0	$467,460	$486,158	$505,605
56	**Subtotal - Treated Water Transmission System**	$0	$0	$0	$2,003,077	$2,083,200	$2,166,528
57							
58	**Source Water Transmission System**						
59	Lakewood Pipeline	$0	$0	$316,330	$0	$0	$0
62	**Subtotal - Source Water Transmission System**	$0	$0	$316,330	$0	$0	$0
63							
64	**Barker Water System**						
65	Barker Gravity Pipeline Repair	$1,559,811	$1,622,204	$1,687,092	$2,083,559	$2,166,901	$2,253,577
66	Barker-Kossler Penstock Repair	$116,986	$0	$0	$0	$0	$0
67	Barker Dam Outlet	$175,000	$0	$835,551	$0	$0	$0
68	Barker Dam Outlet - Bond Proceeds	$0	$0	$0	$8,355,509	$0	$0
69	Barker Dam and Reservoir	$50,000	$0	$0	$0	$0	$0
75	Kossler Dam	$0	$0	$0	$0	$0	$100,000
76	**Subtotal - Barker Water System**	$1,901,797	$1,622,204	$2,522,643	$10,439,067	$2,166,901	$2,353,577
77							
78	**Raw Water Storage Reservoirs**						
79	Albion Dam	$0	$341,636	$3,416,361	$0	$0	$0
80	Silver Lake Dam	$0	$100,000	$0	$0	$0	$0
81	Island Lake Dam	$0	$50,000	$0	$0	$0	$0
83	Green Lake 2 Dam	$0	$0	$0	$0	$0	$4,867,726
84	Green Lake 2 Dam	$0	$0	$0	$75,000	$486,773	$0
86	Goose Lake Dam	$0	$75,000	$0	$0	$0	$0
87	Boulder Reservoir	$0	$0	$0	$118,434	$0	$0
88	Lakewood Dam	$0	$124,707	$0	$0	$0	$0
89	Skyscraper Dam	$0	$0	$0	$0	$171,071	$0
90	Wittemyer Ponds	$0	$0	$100,000	$492,685	$4,926,849	$0
91	**Subtotal - Raw Water Storage Reservoirs**	$0	$691,343	$3,516,361	$686,119	$5,584,692	$4,867,726
92							
93	**Other Raw Water Facilities**						
94	Farmer's Ditch	$0	$0	$108,160	$0	$0	$0
95	Anderson Ditch	$0	$0	$0	$0	$0	$0
96	Source Water Facilities Rehab Program	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000
97	Watershed Improvements	$0	$0	$0	$100,000	$0	$0
104	NCWCD Conveyance - Carter Lake Pipeline	$2,150,000	$0	$0	$0	$0	$0
105	NCWCD Conveyance/Waterline replacement - Bond Proceeds	$0	$31,700,000	$0	$0	$0	$0
106	**Subtotal - Other Raw Water Facilities**	$2,300,000	$31,850,000	$258,160	$250,000	$150,000	$150,000
107							
108	**Source Water Pressure Reducing, Pumping and Hydroelectric**						
109	Lakewood Hydroelectric/PRV	$0	$0	$300,000	$0	$0	$0
110	Silver Lake Hydroelectric/PRV	$50,000	$0	$200,000	$0	$0	$0
112	Hydroelectric Facilities Rehabilitiation Program	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
113	Betasso Hydroelectric / Pressure Reducing Facility	$400,000	$480,000	$0	$0	$0	$0
114	Barker Dam Hydroelectric	$0	$0	$0	$0	$0	$50,000
116	Boulder Canyon Hydroelectric	$0	$90,000	$0	$0	$0	$0
119	Carter Lake Hydroelectric	$0	$50,000	$250,000	$0	$0	$0
120	Carter Lake Hydro	$0	$0	$0	$2,500,000	$0	$0
121	Source Water Pressure Reducing, Pumping and Hydroelectric Fa	$0	$0	$0	$193,472	$201,210	$209,259
122	**Subtotal - Source Water PRV, Pumping and Hydro**	$500,000	$670,000	$800,000	$2,743,472	$251,210	$309,259
123							
128	**Water System Monitoring and Metering**						
129	Automated Meter Reading	$0	$0	$0	$0	$0	$0

Attachment B - PROPOSED WATER CIP

	A	L	M	N	O	P	Q
1		CITY OF BOULDER					
2		DRAFT 2017-2022 CAPITAL IMPROVEMENT PROGRAM					
3		WATER UTILITY FUND					
4							
5							
6	**Assumed Inflation Rate**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
7	**PROJECT NAME**	**PROPOSED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**
8							
130	Water System Security/Quality Improvements	$150,000	$150,000	$90,000	$0	$0	$0
131	Source Water Monitoring and Protection	$100,000	$100,000	$100,000	$0	$0	$0
136	Utility Billing Computer System	$0	$0	$0	$125,000	$0	$0
137	**Subtotal - Water System Monitoring and Metering**	$250,000	$250,000	$190,000	$125,000	$0	$0
138							
139	**TOTAL CAPITAL USES OF FUNDS**	$9,330,215	$39,384,442	$11,718,449	$20,969,224	$14,365,392	$15,628,528

Attachment B - PROPOSED WASTEWATER CIP

	A	L	M	N	O	P	Q
1		**CITY OF BOULDER**					
2		**DRAFT 2017 - 2022 CAPITAL IMPROVEMENT PROGRAM**					
3		**WASTEWATER UTILITY FUND**					
4							
5							
6	**Assumed Inflation Rate**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
7	**PROJECT NAME**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**
8							
9	**Wastewater Treatment**						
10	WWTF Pumps	$0	$0	$150,000	$0	$0	$150,000
11	WWTF Permit Improvements	$0	$862,500	$1,725,000	$0	$136,857	$0
12	WWTF Nutrient Management Grant						
13	WWTF Permit Improvements - Proj. Bond	$0	$0	$0	$17,250,000	$0	$0
14	WWTF Laboratory	$0	$0	$0	$0	$0	$0
15	WWTF Headworks	$0	$0	$0	$0	$0	$0
16	WWTF Instrumentation/Control	$0	$0	$1,265,319	$0	$0	$0
17	WWTF Electrical	$1,400,000	$210,000	$0	$0	$0	$0
18	WWTF Activated Sludge	$0	$0	$189,798	$0	$0	$0
19	WWTF Primary Clarifiers	$0	$0	$900,000	$9,000,000	$1,350,000	$0
20	WWTF Secondary Clarifiers	$0	$0	$0	$0	$0	$0
21	WWTF UV Disinfection	$0	$0	$0	$0	$0	$0
22	WWTF Rehabilitation	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000
23	Biosolids Processing & Dewatering	$0	$0	$0	$0	$0	$0
24	WWTF Cogeneration	$400,000	$0	$0	$184,481	$0	$0
25	WWTF Digester Complex	$0	$0	$200,000	$2,000,000	$0	$0
26	September 2013 Flood Disaster Recovery	$0	$0	$0	$0	$0	$0
27	WWTF Sediment Removal - FEMA Grant						
28	WWTF Digester Cleaning	$0	$0	$0	$136,857	$0	$0
29	Bond Issuance Costs	$0	$125,000	$0	$125,000	$0	$0
30	**Subtotal - Wastewater Treatment Plant**	$2,050,000	$1,447,500	$4,680,117	$28,946,338	$1,736,857	$400,000
31							
35							
36	**Wastewater System Monitoring and Metering**						
39	Utility Billing Computer System	$0	$0	$0	$65,000	$0	$0
40	**Subtotal - Monitoring and Metering**	$0	$0	$0	$65,000	$0	$0
41							
42	**Collection and Conveyance System Rehabilitation**						
43	Collection System Monitoring	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000
44	Condition Assessment Program	$0	$648,960	$674,918	$701,915	$729,992	$759,191
45	Sanitary Sewer Rehabilitation	$1,743,539	$2,983,139	$3,102,465	$3,226,563	$3,355,626	$3,489,851
48	Sanitary Sewer Manhole Rehabilitation	$224,973	$233,972	$243,331	$253,064	$657,966	$684,285
50	Main Interceptor Realignment	$0	$10,059,920	$0	$0	$0	$0
51	Lower Goose Creek Trunk Sewer Replacement	$4,000,000	$0	$0	$0	$0	$0
52	Foothills & Baseline Trunk Sewer Replacement	$0	$3,497,000	$0	$0	$0	$0
53	Arapahoe Trunk Sewer Replacement	$0	$0	$0	$0	$0	$0
54	**Subtotal - Sewer System Rehabilitation**	$6,118,512	$17,572,991	$4,170,714	$4,331,542	$4,893,584	$5,083,327
59							
60	**TOTAL CAPITAL USES OF FUNDS**	$8,168,512	$19,020,491	$8,850,831	$33,342,880	$6,630,441	$5,483,327

Attachment B - PROPOSED STORMWATER/FLOOD CIP

	A	J	K	L	M	N	O
1			CITY OF BOULDER				
2		DRAFT 2017-2022 CAPITAL IMPROVEMENT PROGRAM					
3		STORMWATER AND FLOOD MANAGEMENT UTILITY FUND					
4							
5							
6		2017	2018	2019	2020	2021	2022
7	**PROJECT NAME**	**PROPOSED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**
8							
9	**Major Drainageways**						
10	Elmer's Twomile Creek	$0	$0	$0	$0	$0	$0
11	Goose Creek	$0	$0	$1,500,000	$1,250,000	$500,000	$800,000
12	South Boulder Creek	$750,000	$0	$0	$0	$0	$0
13	South Boulder Creek - Bond Proceeds	$0	$25,000,000	$0	$0	$0	$0
14	Bond Issuance Costs	$0	$325,000	$0	$0	$0	$0
15	Skunk Canyon Creek	$200,000	$500,000	$0	$0	$0	$0
16	Sunshine Creek	$0	$0	$0	$0	$0	$0
17	Twomile Canyon Creek	$100,000	$500,000	$0	$0	$0	$0
18	Bluebell Canyon Creek - King's Gulch	$0	$0	$0	$0	$0	$0
19	Viele Channel	$0	$0	$0	$0	$0	$0
20	Four Mile Canyon Creek	$0	$0	$0	$0	$0	$0
21	Four Mile Canyon Creek - Upland to Violet	$3,000,000	$2,000,000	$0	$0	$0	$0
22	Four Mile Canyon Creek - 19th to 22nd - Bond	$0	$0	$0	$0	$0	$0
23	Bear Canyon Creek	$0	$0	$0	$0	$0	$0
24	Gregory Canyon Creek	$0	$500,000	$0	$0	$0	$0
25	Boulder Creek	$0	$1,250,000	$0	$0	$0	
31	Bond Issuance Costs	$0	$0	$0	$0	$0	$0
32	Preflood Acquisition	$550,000	$600,000	$633,000	$660,000	$684,285	$711,656
33	Greenways Program Transfer	$97,500	$97,500	$97,500	97,500	97,500	138,773
34	**Subtotal - Major Drainageway Improvements**	$4,697,500	$30,772,500	$2,230,500	$2,007,500	$1,281,785	$1,650,429
35							
36	**Miscellaneous**						
42	Utility Billing Computer System	$0	$0	$0	$65,000	$0	$0
43	**Subtotal - Miscellaneous Drainage Improvements**	$0	$0	$0	$65,000	$0	$0
44							
45	**Stormwater Management**						
46	2007 Master Plan - Upper Goose Creek	$0	$0	$0	$0	$0	$0
52	2016 Master Plan - Middle Boulder Creek - 2	$0	$0	$0	$0	$3,862,873	$0
53	2016 Master Plan - Wonderland Creek - 1	$0	$0	$0	$0	$386,896	$0
54	2016 Master Plan - Bear Canyon Creek - 5	$0	$0	$0	$0	$324,846	$0
59	Local Drainage Improvements	$759,283	$789,655	$821,241	$854,090	$986,949	$1,026,427
60	Stormwater Quality Improvements	$169,000	$175,500	$182,500	$190,000	$197,390	$205,285
61	Storm Sewer Rehabilitation	$281,200	$292,500	$304,000	$632,700	$657,966	$684,285
62	Transportation Coordination	$337,500	$351,000	$365,000	$633,000	$657,966	$684,285
63	**Subtotal - Localized Drainage Improvements**	$1,546,983	$1,608,655	$1,672,741	$2,309,790	$7,074,885	$2,600,281
64							
65	**TOTAL CAPITAL USES OF FUNDS**	$6,244,483	$32,381,155	$3,903,241	$4,382,290	$8,356,670	$4,250,710

Guiding Principles and Project Prioritization

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.