

CITY OF BOULDER

**WATER RESOURCES ADVISORY BOARD
AGENDA ITEM**

MEETING DATE: June 16, 2014

AGENDA TITLE: Public hearing and consideration of a recommendation regarding the 2015 Utilities (Water, Wastewater and Stormwater/ Flood Management) Capital Improvement Program Budget and 6-year Capital Improvement Program

PRESENTERS:

Jeff Arthur, Director of Public Works for Utilities
Bob Harberg, Principal Engineer – Utilities
Ken Baird, Utilities Financial Manager
Douglas Sullivan, Engineering Project Manager

EXECUTIVE SUMMARY:

As part of the city’s annual budget process, the Utilities Division develops a six-year planning budget, this year for the time period of 2015 through 2020. Utilities staff has formulated revenue and expenditure projections for each of the three utility funds through the year 2020. Within the budget process, council approves and appropriates funds only for the first year, 2015.

In order to better integrate data and public feedback related to the flood into the 2015-2020 CIP discussion, staff presented “previews” of the Water, Wastewater, and Stormwater/Flood Management Utility Capital Improvement Programs at the January, February, and March WRAB meetings. The April meeting provided an opportunity for the WRAB to discuss a “preliminary draft” of the CIP. WRAB members indicated general support for the preliminary CIP for both the Water and Stormwater/Flood funds, but requested that additional information regarding the wastewater collection system be provided at the May meeting.

At the May 19 meeting, staff provided detailed information regarding the wastewater collection system condition assessment, newly identified corrosion issues in the city’s interceptor sewer, and a plan for system rehabilitation based on a 10% revenue increase in 2015 followed by 7% increases in both 2016 and 2017, and a 10% increase in 2018. The proposal maintained a competitive rate position for the city relative to other front range cities, but raised concerns from the public and some board members due to an approximately 45-year timeframe required to fully rehabilitate or replace aging vitrified clay and concrete pipes and the lack of immediate investment in projects identified in the 2009 Wastewater Collection System Master Plan. Board members expressed an interest in better understanding a level of investment that would appropriately address existing and future issues with infiltration, inflow, and structural integrity while avoiding unnecessary rehabilitation of pipes well ahead of the end of their useful lives.

This memorandum includes both the wastewater collection system rehabilitation approach based

on the revenue increase scenario presented in May and a new scenario that would target a 20 year planning horizon for system rehabilitation and expedite implementation of recommended master plan improvements. The new scenario would require a 25% revenue increase in 2015, but would allow for smaller increases in subsequent years than was proposed with the original 10% scenario. Staff is recommending that WRAB support the CIP proposal based on the 25% revenue increase scenario.

This packet contains information concerning the Preliminary 2015 Utilities Budget and the 2015-2020 Utilities CIP. **Attachment A** contains Fund Financial and CIP spreadsheets for the Water, Wastewater, and Stormwater/Flood Management Funds and includes the 25% revenue increase scenario in the Wastewater Fund. Similarly, **Attachment B** contains Fund Financial and CIP spreadsheets for the three funds, but includes the 10% revenue increase scenario in the Wastewater Fund.

Staff requests a recommendation from the WRAB concerning the 2015 Utilities Budget including the 6-year Capital Improvement Program (CIP) and Monthly Utility Rates. Staff will submit the CIP to the Planning Board which will make a recommendation to City Council on July 31. City Council study sessions are scheduled for August 12, 2014 concerning the proposed city-wide 2015-2020 CIP and on September 9 and September 23 on the recommended 2015 city-wide budget.

STAFF RECOMMENDATION:

Staff recommends that WRAB make the following motion related to the 2015-2020 CIP:

The Water Resources Advisory Board recommends approval of the 2015-2020 CIP for the Water, Wastewater, and Stormwater/Flood Management Utilities proposed in Attachment A including proposed rate adjustments to support 2015 revenue increases of 5% in the water utility, 25% in the wastewater utility, and 71% in the stormwater and flood control utility.

FISCAL IMPACTS:

The following percentage increases in additional revenue from the monthly utility fees are currently being recommended by Utilities staff for 2014 to fund the preliminary Utilities budget and capital improvements program.

Water	5%
Wastewater	25%
Stormwater/ Flood Management	71%

BOARD FEEDBACK:

The preliminary 2015 Utilities budget and 2015-2020 CIP were presented to the WRAB on April 21 and May 19, 2014. The Board provided comments as documented in the meeting minutes and audio recordings.

PUBLIC FEEDBACK:

Due to significant public interest at prior meetings, the WRAB held a public hearing on the 2015-2020 CIP at the May 19, 2014 meeting. A summary of comments is provided in the draft meeting minutes. Many speakers had experienced impacts due to the Sep. 2013 flood and spoke in favor of additional investment to mitigate future issues.

BACKGROUND:

The Utilities Division provides 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. Each of the city's three utilities (water, wastewater and stormwater/flood management) is a separate enterprise fund established to finance and account for the acquisition, operation and maintenance of each utility's facilities and services while maintaining designated reserves and meeting debt service requirements.

Revenues generated from monthly utility bills are the largest revenue source for each utility. Other significant sources of funds include development fees (plant investment fees), hydroelectric revenues, funding from the Urban Drainage and Flood Control District (UDFCD) and interest earnings.

The majority of the utilities expenditures are for rehabilitating and improving the capital infrastructure either through the capital improvements program (cash financed) or through annual debt payments for revenue bonds that have been issued to fund capital improvements. The infrastructure is core in carrying out the utilities' mission of delivering safe and reliable water to our customers and ensuring that water is available for fire protection. Other significant uses of funds include water treatment operations, wastewater treatment operations, distribution and collection system maintenance and water quality operations.

WRAB is responsible for making a recommendation to City Council on the 6-year CIP. The following proposed operating adjustments are not part of the CIP, but are provided for reference.

- Stormwater/Flood Management Fund - an additional \$25,000 is recommended for additional seasonal staffing for maintenance of flood infrastructure.
- Stormwater/Flood Management Fund - two new positions are recommended to help manage the proposed increase in capital projects, mapping, and mitigation planning.
- Water Fund - an increase of \$193,000 is recommended for legal and consultant costs, primarily related to water rights issues.
- Wastewater Fund & Stormwater/Flood Management Fund - An increase of \$14,500 is recommended in each fund (\$29,000 total) to cover increased costs associated with the Household Hazardous Waste Facility. This facility is operated by the County, and each municipality provides funding based on household usage.

ANALYSIS:

In response to feedback received at the May 19 WRAB meeting, staff has developed an additional wastewater CIP scenario that would fund rehabilitation/replacement of the wastewater collection system in a time period more consistent with its currently anticipated useful life. The scenario would provide an additional \$1.25 million per year of CIP funding and would require a revenue increase of 25%. The additional funds would be used for the sanitary sewer rehabilitation program focusing on the cured-in-place (CIPP) lining work and also on the system's identified hydraulic limitations. **Attachment C** is the Utilities Division 2014-2019 CIP Overview Memo for more information.

The 2009 Wastewater Collection System Master Plan (WWCSMP) identified numerous collection system rehabilitation projects with an estimated total cost of \$30,000,000. These projects were organized according to Tier 1, Tier 2, and Tier 3 projects representing high, medium, and low priorities respectively. There were four Tier 1 projects with an estimated cost of \$5,000,000, seven Tier 2 projects with an estimated cost of \$23,000,000, and 13 Tier 3 projects with an estimated cost of \$2,000,000. As the highest priority, the Tier 1 projects were recommended for a 2016-2021 timeframe. The Tier 2 projects were recommended for a 2012-2013 timeframe. The Tier 3 projects were not identified with a specific schedule because of their lower priority. Tier 3 projects are periodically completed in coordination with other projects (ie: Transportation) that occur in the vicinity of the Tier 3 sites. **Attachment D** is a map of the sanitary sewer recommended improvements from the WWCSMP (2009).

The additional funding associated with the proposed 25% rate increase would permit staff to significantly increase the annual CIPP lining work. At the 10% funding level discussed in May, it would take approximately 45 years to line the wastewater collection system – excluding the PVC and CIPP sections. Depending on what percentage of the rate increase was dedicated to the lining program, the proposed increased funding would allow the Utilities to line the entire system in a 20-30 year period.

The increased funding would also be utilized to address the various hydraulic limitations identified in the 2009 WWCSMP. Utilities staff is in the process of updating the master plan this year to incorporate the flood inundation data from the September 2013 flood event. This update is an effort to verify that the previous projects identified still represent the top priority. The increased funding would be used to address the Tier 1 projects first.

Lastly, the increased funding would be used to repair system deficiencies identified in the 2014 flow monitoring evaluation. This evaluation will help identify areas of the collection system that are receiving the most inflow and infiltration (I&I). Rehabilitation techniques vary significantly depending on whether the flow into the system is infiltration or inflow. Rehabilitation projects to minimize extraneous inflow to the wastewater collection system will be identified following the completion of the flow monitoring evaluation.

The following table summarizes the 2014 adopted revenue increase and proposed revenue

increase projections for 2015-2018. The proposed 2014 increases are in bold.

	2014	2015	2016	2017	2018
Water	4%	5%	8%	8%	8%
Wastewater (10%)	5%	10%	7%	7%	10%
Wastewater (25%)	5%	25%	5%	5%	5%
Stormwater/Flood Management	3%	71%	4%	4%	4%

While providing additional funding in the Wastewater CIP, the 25% increase also drops the anticipated revenue increases to 5% until 2020 when the Wastewater Treatment Plant bond project will require an anticipated 10% increase. An advantage to more inflationary future rate increases may be realized as the ratings agencies evaluate the \$10M bond issue in 2015. If the fund is already supported by the 25% increase in 2015 there may be less concern since fund sustainability will not be dependent on larger future increases.

Customer Bill Impact

The following tables show the projected impact on the single family residential bills for the two different scenarios. Under the 10% Wastewater scenario the average monthly bill increases \$9.52/month and under the 25% scenario the bill increase is \$13.01/month.

Monthly Bill Impact – 5%, 10%, 71% Scenario

	2014	2015	Monthly Change	% Change
Water	\$34.95	\$36.69	\$1.74	5%
Wastewater	\$23.25	\$25.58	\$2.33	10%
Stormwater	\$7.69	\$13.15	\$5.46	71%
Total	\$65.89	\$75.41	\$9.52	14%

Monthly Bill Impact – 5%, 25%, 71% Scenario

	2014	2015	Monthly Change	% Change
Water	\$34.95	\$36.69	\$1.74	5%
Wastewater	\$23.25	\$29.06	\$5.81	25%
Stormwater	\$7.69	\$13.15	\$5.46	71%
Total	\$65.89	\$78.90	\$13.01	20%

The following tables show the estimated impact of the proposed 2015 rate increases on some sample commercial customers under both Wastewater Scenarios. The total increase in monthly charges varies by user type because of the way rates are determined. A larger water/wastewater user in a small building footprint (such as a downtown restaurant) may be most impacted by the increase in water/wastewater rates. A user with a large building and/or parking lot, such as a grocery store or large format retailer, would see a more significant increase in their stormwater

monthly charge

Water and Wastewater Monthly Bill Impact – Example Commercial Customers

Customer	Water & Wastewater 2014 Rates	Water 5% & Wastewater 10%	Water 5% & Wastewater 25%
Hotel	\$2,572	\$2,772	\$2,987
Grocery Store	\$5,658	\$6,046	\$6,362
Large Format Retailer	\$1,292	\$1,389	\$1,486
Pearl Street Retail	\$86	\$92	\$100
Industrial/Institutional	\$4,123	\$4,421	\$4,698
Downtown Restaurant	\$254	\$274	\$298
Downtown Restaurant/Brewery	\$614	\$664	\$720

Stormwater Monthly Bill Impact – Example Commercial Customers

Customer	Stormwater Monthly Bill 2014 Rates	Stormwater Monthly Bill 2015 Rates
Hotel	\$225	\$385
Grocery Store	\$879	\$1,503
Large Format Retailer	\$884	\$1,512
Pearl Street Retail	\$10	\$17
Industrial/Institutional	\$1,078	\$1,843
Downtown Restaurant	\$16	\$27
Downtown Restaurant/Brewery	\$14	\$24

Combined Monthly Bill Impact – Example Commercial Customers

Customer	Water & Wastewater 2014 Rates	Water 5% & Wastewater 10%	Water 5% & Wastewater 25%
Hotel	\$2,797	\$3,157	\$3,372
Grocery Store	\$6,537	\$7,549	\$7,865
Large Format Retailer	\$2,176	\$2,901	\$2,998
Pearl Street Retail	\$96	\$109	\$117
Industrial/Institutional	\$5,201	\$6,265	\$6,541
Downtown Restaurant	\$270	\$302	\$325
Downtown Restaurant/Brewery	\$628	\$687	\$744

Front Range Rate Comparison

The comparison of annual bills among Front Range communities has been updated to include both Wastewater scenarios. **Attachment E** shows how Boulder’s current Water and Wastewater rates compare with other local utilities and also where our proposed rates fall among the others. With the combined Water and Wastewater charge, the proposed increases of 5% for Water and

either 10% or 25% for Wastewater place the City in the middle of the group. **Attachment F** is the Stormwater bill comparison, and has not changed since presented at the last WRAB meeting. **Attachment G** shows the annual bill comparison for all three fees. The impact of the 10% or 25% increase in Wastewater is moving Boulder to either the 8th highest or the 6th highest, respectively.

Using historical data from this rate survey, the yearly average residential bill of the other utilities was compared to Boulder’s annual bill starting in 2007, resulting in the chart in **Attachment H**. The 2015 rate for the other cities was assumed by using the average historical increase of 5%, and Boulder’s 2015 shows both the 10% and 25% Wastewater increase scenarios. With the 10% increase the City’s annual bill will be around \$72 below the average, and with the 25% increase is would be nearly \$30 below.

NEXT STEPS:

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

Milestone	Date
Proposed Budget Submittal to City Manager	May 30, 2014
<i>WRAB Recommendation on CIP/Budget</i>	<i>June 16, 2014</i>
Departmental Budget Review by City Manager	May 30-June 28, 2014
Planning Board CIP Hearing	July 31, 2014
City Council Study Session on Budget (CIP)	Aug. 12, 2014
City Council Study Session on Budget	Sept. 9, 2014
City Council Consideration/Adoption of Budget	Oct. 7 and Oct. 21, 2014

Attachments:

- A:** Utility Fund Financials and CIPs – With 25% Wastewater Increase
- B:** Utility Fund Financials and CIPs – With 10% Wastewater Increase
- C:** Utilities Division 2014-2019 CIP Overview Memo
- D:** WWCSMP Recommended Improvements Map
- E:** Front Range Bill Comparison – Water, Wastewater
- F:** Front Range Bill Comparison – Stormwater/Flood Management
- G:** Front Range Bill Comparison – Water, Wastewater, Stormwater/Flood Management
- H:** Residential Annual Bill History Comparison – Boulder and Front Range Average

**CITY OF BOULDER
2015 FUND FINANCIAL**

WATER UTILITY

	2013 Actual	2014 Revised	2015 Proposed	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Beginning of Year Fund Balance	\$ 35,375,682	\$ 34,394,473	\$ 30,126,921	\$ 30,400,725	\$ 29,013,838	\$ 30,358,623	\$ 34,076,733	\$ 38,389,056
Sources of Funds								
Operating-								
Sale of Water to General Cust	\$ 21,066,313	\$ 21,460,807	\$ 22,363,662	\$ 23,528,592	\$ 25,461,486	\$ 27,553,185	\$ 29,816,739	\$ 31,071,211
Projected Rate Increase	-	858,432	1,118,183	1,882,287	2,036,919	2,204,255	1,192,670	1,242,848
Bulk/Irrigation Water Sales	147,045	141,050	143,050	143,050	143,050	143,050	143,050	143,050
Hydroelectric Revenue	1,948,628	2,405,978	2,278,800	2,227,500	2,290,500	2,313,000	2,313,000	2,313,000
Miscellaneous Operating Revenues	36,129	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Non-Operating--								
Plant Investment Fees	3,417,766	2,200,000	2,200,000	2,200,000	2,000,000	2,000,000	2,000,000	2,000,000
Connection Charges	257,551	130,000	130,000	130,000	130,000	130,000	130,000	130,000
Special Assessments	100,035	5,000	2,505,000	2,505,000	5,000	5,000	5,000	5,000
State & Federal Grants	205,068	-	1,125,000	-	-	-	-	-
Interest on Investments	219,563	257,959	301,269	456,011	435,208	758,966	851,918	959,726
Rent, assessments and other misc revenues	121,033	20,000	20,500	20,500	20,500	20,500	20,500	20,500
Sale of Real Estate	-	450,000	714,750	-	-	-	-	-
Transfer from General Fund - Fire Training Center	92,785	92,785	92,785	92,785	92,785	92,785	92,785	92,785
Projected Bond Proceeds	-	-	-	12,125,000	-	34,300,000	8,134,000	-
Total Sources of Funds	\$27,611,915	\$ 28,047,011	\$33,017,999	\$ 45,335,726	\$ 32,640,447	\$ 69,545,741	\$ 44,724,662	\$ 38,003,121
Uses of Funds								
Operating-								
Administration	\$ 953,671	\$ 883,659	\$ 932,432	\$ 960,405	\$ 989,217	\$ 1,018,894	\$ 1,049,460	\$ 1,080,944
Planning and Project Management	567,134	602,092	617,392	635,914	654,991	674,641	694,880	715,727
Water Resources and Hydroelectric Operations	2,623,220	2,035,907	2,435,944	2,509,022	2,584,293	2,661,822	2,741,676	2,823,927
Water Treatment	4,593,810	4,699,333	4,670,125	4,810,229	4,954,536	5,103,172	5,256,267	5,413,955
Water Quality and Environmental Svcs	981,412	1,004,893	1,040,379	1,071,590	1,103,738	1,136,850	1,170,956	1,206,084
Water Conservation	384,948	395,910	425,743	438,515	451,671	465,221	479,177	493,553
System Maintenance	3,214,315	3,165,659	3,148,554	3,243,011	3,340,301	3,440,510	3,543,725	3,650,037
Windy Gap Payment	2,394,139	2,633,250	2,714,004	2,696,959	2,314,181	251,200	258,736	266,498
Sick and Vacation Accrual	(56,413)	100,000	100,000	103,000	106,090	109,273	112,551	115,927
TOTAL OPERATING USES OF FUNDS	\$15,656,236	\$ 15,520,703	\$16,084,573	\$16,468,645	\$16,499,018	\$14,861,582	\$15,307,429	\$15,766,652

**CITY OF BOULDER
2015 FUND FINANCIAL**

WATER UTILITY

	2013 Actual	2014 Revised	2015 Proposed	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Debt-								
BRWTP 1996 Revenue Bond; Refunding in 2006	854,438	856,594	857,708	858,531	-	-	-	-
Refunding of the 1999 and 2000 Revenue Bonds	2,512,621	2,523,521	2,522,054	2,517,388	2,524,233	2,524,650	1,375,102	-
Lakewood 2001 Rev Bond; Refunded in 2012	2,057,650	2,057,000	2,065,733	2,065,950	2,065,333	2,072,083	2,080,817	2,081,367
Projected Bond-Betasso WTP Improvements	-	-	-	1,140,000	1,140,000	1,140,000	1,140,000	1,140,000
Projected Bond-NCWCD Conveyance Line	-	-	-	-	-	3,224,177	3,224,177	3,224,177
Projected Bond - Barker Dam	-	-	-	-	-	-	763,244	763,244
Transfers -								
Cost Allocation	1,208,285	1,255,221	1,255,221	1,317,982	1,383,881	1,453,075	1,525,729	1,602,015
Planning & Development Services	206,373	212,564	218,941	225,509	232,275	239,243	246,420	253,813
General Fund - City Attorney	31,893	52,888	59,958	62,356	64,851	67,445	70,142	72,247
Capital								
Capital	\$6,009,216	4,025,000	9,780,007	\$10,044,251	7,492,162	6,065,949	6,657,687	12,068,898
Projected Bond - Betasso WTP IMP	-	-	-	\$12,000,000	-	-	-	-
Projected Bond - NCWCD Conveyance	-	-	-	-	-	\$33,938,701	-	-
Projected Bond - Barker Dam	-	-	-	-	-	-	\$8,034,143	-
Projected Bond - Issuance Costs	-	-	-	\$125,000	-	\$350,000	100,000	-
Encumbrances, Carryover and Adjustments to Base	-	5,911,071	-	-	-	-	-	-
Total Uses of Funds	\$ 28,536,711	\$ 32,414,562	\$ 32,844,195	\$46,825,613	\$ 31,401,752	\$65,936,903	\$ 40,524,889	\$36,972,412
Sick/Vacation Accrual Adjustment	\$ (56,413)	\$ 100,000	\$ 100,000	\$ 103,000	\$ 106,090	\$ 109,273	\$ 112,551	\$ 115,927
Ending Fund Balance Before Reserves	\$ 34,394,473	\$ 30,126,921	\$ 30,400,725	\$ 29,013,838	\$ 30,358,623	\$ 34,076,733	\$ 38,389,056	\$ 39,535,693
Reserves								
Bond Reserve	\$ 3,034,796	\$ 3,034,796	\$ 3,034,796	\$ 4,174,796	\$ 3,321,429	\$ 6,545,606	\$ 7,308,850	\$ 7,731,680
Lakewood Pipeline Remediation Reserve	14,932,560	15,588,815	16,254,473	17,214,860	18,204,457	19,224,155	19,953,763	21,026,667
Sick/Vacation/Bonus Reserve	574,219	591,445	609,189	627,464	646,288	665,677	685,647	706,217
Pay Period 27 Reserve	112,400	163,400	214,400	265,400	316,400	367,400	418,400	469,400
Operating Reserve	4,275,697	4,260,344	4,404,673	4,518,623	4,545,006	4,155,336	4,287,430	4,423,682
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
Total Reserves	\$ 24,929,671	\$ 25,638,800	\$ 26,517,531	\$ 28,801,143	\$ 29,033,581	\$ 32,958,174	\$ 34,654,090	\$ 36,357,645
Ending Fund Balance After Reserves	\$ 9,464,801	\$ 4,488,121	\$ 3,883,194	\$ 212,694	\$ 1,325,042	\$ 1,118,559	\$ 3,734,966	\$ 3,178,048

Note:

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 A -
Utility CIPs**

	A	H	I	J	K	L	M	N	
1	06-Jun-14			CITY OF BOULDER					
2				2015-2020 CAPITAL IMPROVEMENT PROGRAM					
3				WATER UTILITY FUND					
4									
5									
6	Assumed Inflation Rate	2014	2015	2016	2017	2018	2019	2020	
7	PROJECT NAME	REVISED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	
8									
9	Treated Water Pressure Reducing and Hydroelectric Facilities								
10	Kohler Hydro/PRV Facility	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	
11	Maxwell Hydro/PRV Facility	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	
12	Orodel Hydro/PRV Facility	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
13	Sunshine Hydro/PRV Facility	\$0	\$0	\$0	\$271,875	\$0	\$0	\$0	
14	Pearl Street Hydro/PRV Facility	\$0	\$0	\$0	\$0	\$24,333	\$243,331	\$0	
15	Subtotal - Treated Water PRV and Hydro	\$100,000	\$0	\$0	\$271,875	\$24,333	\$243,331	\$0	
16									
17	Water Treatment Facilities								
18	Betasso WTF	\$815,985	\$700,000	\$0	\$0	\$0	\$0	\$0	
19	Betasso WTF - Bond Proceeds	\$0	\$0	\$12,000,000	\$0	\$0	\$0	\$0	
20	Bond Issuance Costs	\$0	\$0	\$125,000	\$0	\$350,000	\$100,000	\$0	
21	Boulder Reservoir WTF	\$131,886	\$0	\$164,000	\$0	\$0	\$0	\$0	
22	Boulder Res WTF - Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
23	Subtotal - Water Treatment Facilities	\$947,871	\$700,000	\$12,289,000	\$0	\$350,000	\$100,000	\$0	
24									
25	Treated Water Pump Stations								
26	Cherryvale Pump Station	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
27	Boulder Reservoir WTF High Service Pump Station	\$162,800	\$0	\$0	\$0	\$0	\$0	\$0	
28	Iris Pump Stations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
29	Subtotal - Treated Water Pump Stations	\$162,800	\$0	\$0	\$0	\$0	\$0	\$0	
30									
31	Treated Water Storage Tanks								
32	Gunbarrel Storage Tank	\$524,830	\$0	\$0	\$0	\$0	\$0	\$0	
33	Maxwell Storage Tank	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
34	Booten Storage Tank	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
35	Devil's Thumb Storage Tank	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	
36	Kohler Storage Tank	\$0	\$103,487	\$799,875	\$0	\$0	\$0	\$0	
37	Chautauqua Storage Tank	\$155,219	\$0	\$0	\$0	\$0	\$0	\$0	
38	Betasso Storage Tank	\$0	\$0	\$0	\$292,465	\$0	\$0	\$0	
39	Boulder Reservoir Storage Tank	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
40	Subtotal - Treated Water Storage Tanks	\$680,049	\$153,487	\$799,875	\$292,465	\$0	\$0	\$0	
41									
42	Treated Water Distribution System								
43	Zone Isolation Valves	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
44	Cathodic Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
45	Waterline Replacement	\$3,642,831	\$3,224,000	\$3,352,960	\$3,487,078	\$3,626,562	\$3,771,624	\$3,224,033	
46	Subtotal - Treated Water Distribution System	\$3,642,831	\$3,224,000	\$3,352,960	\$3,487,078	\$3,626,562	\$3,771,624	\$3,224,033	
47									
48	Treated Water Transmission System								
49	Sunshine Transmission Pipe	\$978,252	\$1,000,000	\$0	\$0	\$0	\$0	\$0	
50	Boulder Canyon - Orodel to Fourmile Pipe	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
51	Mountain Transmission Pipes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
52	Zone 1 Transmission Pipes	\$0	\$0	\$0	\$0	\$250,000	\$0	\$0	
53	Zone 2 Transmission Pipes	\$0	\$0	\$0	\$250,000	\$0	\$0	\$250,000	
54	Zone 3 Transmission Pipes	\$0	\$0	\$1,200,000	\$0	\$0	\$250,000	\$0	
55	Subtotal - Treated Water Transmission System	\$978,252	\$1,000,000	\$1,200,000	\$250,000	\$250,000	\$250,000	\$250,000	
56									
57	Source Water Transmission System								
58	Lakewood Pipeline	\$260,000	\$270,400	\$0	\$0	\$0	\$316,330	\$0	
59	Silver Lake Pipeline	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
60	Source Water Transmission Pipe Inspections	\$73,653	\$0	\$0	\$0	\$0	\$0	\$0	
61	Subtotal - Source Water Transmission System	\$333,653	\$270,400	\$0	\$0	\$0	\$316,330	\$0	
62									
63	Barker Water System								
64	Barker Gravity Pipeline Repair	\$402,711	\$378,560	\$667,416	\$612,436	\$636,933	\$662,410	\$688,907	
65	Barker-Kossler Penstock Repair	\$0	\$0	\$0	\$116,986	\$0	\$0	\$0	
66	Barker Dam Outlet	\$0	\$0	\$50,000	\$175,000	\$803,414	\$0	\$0	
67	Barker Dam Outlet - Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$8,034,143	\$0	
68	Barker Dam and Reservoir	\$119,040	\$378,560	\$0	\$0	\$0	\$0	\$0	
69	Barker Hydro System Integration	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
70	Barker Relicensing	\$109,612	\$0	\$0	\$0	\$0	\$0	\$0	
71	Barker Instream Flow Release	\$6,052	\$0	\$0	\$0	\$0	\$0	\$0	
72	Barker Residence	\$443,281	\$0	\$0	\$0	\$0	\$0	\$0	
73	Betasso Penstock	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
74	Kossler Dam	\$192,022	\$0	\$0	\$0	\$0	\$0	\$0	
75	Subtotal - Barker Water System	\$1,272,718	\$757,120	\$717,416	\$904,422	\$1,440,347	\$8,696,554	\$688,907	
76									
77	Raw Water Storage Reservoirs								
78	Albion Dam	\$80,000	\$0	\$0	\$0	\$0	\$0	\$0	
79	Silver Lake Dam	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0	
80	Island Lake Dam	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
81	Green Lake 1 Dam	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
82	Green Lake 2 Dam - Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
83	Green Lake 2 Dam	\$75,000	\$0	\$0	\$0	\$0	\$75,000	\$468,051	
84	Green Lake 3 Dam	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
85	Goose Lake Dam	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	

**Attachment A -
Utility CIPs**

	A	H	I	J	K	L	M	N	
1	06-Jun-14			CITY OF BOULDER					
2				2015-2020 CAPITAL IMPROVEMENT PROGRAM					
3				WATER UTILITY FUND					
4									
5									
6	Assumed Inflation Rate	2014	2015	2016	2017	2018	2019	2020	
7	PROJECT NAME	REVISED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	
8									
86	Boulder Reservoir	\$0	\$0	\$0	\$0	\$0	\$0	\$118,434	
87	Lakewood Dam	\$0	\$0	\$0	\$0	\$124,707	\$0	\$0	
88	Skyscraper Dam	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
89	Wittermyer Ponds	\$0	\$0	\$0	\$0	\$0	\$100,000	\$492,685	
90	Subtotal - Raw Water Storage Reservoirs	\$155,000	\$95,000	\$0	\$0	\$124,707	\$175,000	\$1,079,169	
91									
92	Other Raw Water Facilities								
93	Farmer's Ditch	\$0	\$0	\$0	\$0	\$0	\$108,160	\$0	
94	Anderson Ditch	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
95	Watershed Improvements	\$145,243	\$80,000	\$80,000	\$0	\$0	\$0	\$100,000	
96	Nederland WWTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
97	Instream Flow Structures and Gaging	\$48,428	\$0	\$0	\$0	\$0	\$0	\$0	
98	Como Creek Diversion Structure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
99	Lakewood Diversion Structure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
100	Silver Lake Diversion Structure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
101	NCWCD Conveyance - Boulder Feeder Canal	\$61,297	\$0	\$0	\$0	\$0	\$0	\$0	
102	NCWCD Conveyance - Carter Lake Pipeline	\$250,000	\$500,000	\$850,000	\$2,036,322	\$0	\$0	\$0	
103	NCWCD Conveyance - Bond Proceeds	\$0	\$0	\$0	\$0	\$33,938,701	\$0	\$0	
104	Subtotal - Other Raw Water Facilities	\$504,968	\$580,000	\$930,000	\$2,036,322	\$33,938,701	\$108,160	\$100,000	
105									
106	Source Water Pressure Reducing, Pumping and Hydroelectric								
107	Lakewood Hydroelectric/PRV	\$0	\$0	\$130,000	\$0	\$0	\$300,000	\$0	
108	Silver Lake Hydroelectric/PRV	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	
109	Boulder Reservoir Intake and Pumping	\$12,455	\$0	\$0	\$0	\$0	\$0	\$0	
110	Betasso Hydroelectric / Pressure Reducing Facility	\$0	\$0	\$0	\$0	\$250,000	\$0	\$0	
111	Barker Dam Hydroelectric	\$0	\$0	0	\$0	\$50,000	\$390,832	\$0	
112	Barker Dam Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$3,908,317	
113	Boulder Canyon Hydroelectric	\$134,397	\$0	\$0	\$0	\$0	\$0	\$0	
114	Boulder Canyon Hydro - Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
115	Boulder Canyon Hydro - Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
116	Carter Lake Hydroelectric	\$0	\$0	\$0	\$0	\$50,000	\$250,000	\$0	
117	Carter Lake Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$2,500,000	
118	Source Water Pressure Reducing, Pumping and Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$193,472	
119	Subtotal - Source Water PRV, Pumping and Hydro	\$146,852	\$150,000	\$130,000	\$0	\$350,000	\$940,832	\$6,601,789	
120									
121	Water Distribution System Expansion								
122	Annexation Related Water System Expansion	\$0	\$2,500,000	\$2,500,000	\$0	\$0	\$0	\$0	
123	Subtotal - Water Distribution System Expansion	\$0	\$2,500,000	\$2,500,000	\$0	\$0	\$0	\$0	
124									
125	Water System Monitoring and Metering								
126	Automated Meter Reading	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
127	Water System Security/Quality Improvements	\$13,561	\$150,000	\$150,000	\$150,000	\$150,000	\$90,000	\$0	
128	Source Water Monitoring and Protection	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$0	
129	Distribution System Water Quality	\$12,598	\$0	\$0	\$0	\$0	\$0	\$0	
130	Data Communications System	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
131	September 2013 Flood Disaster Recovery	\$899,373	\$0	\$0	\$0	\$0	\$0	\$0	
132	Yards Master Plan Implementation	\$99,875	\$0	\$0	\$0	\$0	\$0	\$0	
133	Utility Billing Computer System	\$0	\$100,000	\$0	\$0	\$0	\$0	\$125,000	
134	Subtotal - Water System Monitoring and Metering	\$1,025,407	\$350,000	\$250,000	\$250,000	\$250,000	\$190,000	\$125,000	
135									
136	TOTAL CAPITAL USES OF FUNDS	\$9,950,400	\$9,780,007	\$22,169,251	\$7,492,162	\$40,354,649	\$14,791,830	\$12,068,898	

**CITY OF BOULDER
2015 FUND FINANCIAL**

WASTEWATER UTILITY

	2013 Actual	2014 Revised	2015 Proposed	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Beginning Fund Balance	\$ 13,034,309	\$ 12,495,508	\$ 8,835,962	\$ 8,232,771	\$ 8,654,975	\$ 8,345,788	\$ 8,848,110	\$ 8,389,626
Sources of Funds								
Operating-								
Sewer Charges to General Customers	\$ 13,900,486	\$ 13,426,614	\$ 14,126,140	\$ 17,692,991	\$ 18,614,795	\$ 19,584,626	\$ 20,604,985	\$ 21,678,505
Projected Rate Increase	-	671,331	3,531,535	884,650	930,740	979,231	1,030,249	2,167,850
Surcharge/ Pretreatment Fees	157,674	118,000	118,000	118,000	118,000	118,000	118,000	118,000
Plant Investment Fees	952,501	700,000	700,000	700,000	700,000	700,000	700,000	700,000
Connection Charges	16,491	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Special Assessments	71,504	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Federal & State Grants	-	200,000	1,969,025	-	-	-	-	-
Interest on Investments	88,616	124,955	132,539	164,655	216,374	250,374	265,443	251,689
Rent and other miscellaneous revenue	226,096	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Sale of Real Estate - Yards Masterplan	-	-	357,375	-	-	-	-	-
Transfer from Other Funds	-	-	-	-	-	-	-	-
Bond Proceeds	-	-	10,125,000	-	-	-	-	20,625,000
Total Sources of Funds	\$ 15,413,369	\$ 15,257,399	\$ 31,076,115	\$ 19,576,795	\$ 20,596,409	\$ 21,648,731	\$ 22,735,178	\$ 45,557,544
Uses of Funds								
Operating-								
Administration	\$ 507,244	\$ 566,554	\$ 586,577	\$ 604,174	\$ 622,300	\$ 640,969	\$ 660,198	\$ 680,004
Planning and Project Management	195,715	352,768	361,050	371,882	383,038	394,529	406,365	418,556
Wastewater Quality & Environmental Svcs	1,113,531	1,154,257	1,211,342	1,247,682	1,285,113	1,323,666	1,363,376	1,404,277
System Maintenance	1,754,263	1,697,108	1,866,407	1,922,399	1,980,071	2,039,473	2,100,658	2,163,677
Wastewater Treatment	4,910,241	5,134,520	5,178,630	5,333,989	5,494,009	5,658,829	5,828,594	6,003,451
Sick/Vacation Accrual	14,115	75,000	75,000	77,250	79,568	81,955	84,413	86,946
Debt-								
2012 Refunding of the WWTP 2005 Revenue Bond	3,467,233	3,463,046	3,439,463	3,199,450	3,177,125	3,153,292	3,145,375	3,132,458
WWTP UV, Digester, Headworks Imp 2010 Rev Bond	673,963	670,854	672,638	673,863	670,938	672,700	674,013	669,888
WWTP Nutrient Compliance Bond 2020	-	-	-	-	-	-	-	1,947,500
Sanitary Sewer Rehabilitation Bond 2015	-	-	950,000	950,000	950,000	950,000	950,000	950,000
2006 Refunding of the 1992 Marshall Landfill Bond	-	-	-	-	-	-	-	-
Transfers-								
Cost Allocation	866,761	900,430	900,430	945,452	992,725	1,042,361	1,094,479	1,149,203
Planning & Development Services	207,000	213,210	219,607	226,195	232,981	239,970	247,169	254,584
General Fund - Utilities Attorney	10,631	17,629	19,986	20,785	21,617	22,482	23,381	24,316

**CITY OF BOULDER
2015 FUND FINANCIAL**

WASTEWATER UTILITY

	2013 Actual	2014 Revised	2015 Proposed	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Capital Improvement Program	\$1,755,088	1,777,654	6,148,176	3,658,720	5,095,680	5,008,139	6,700,055	6,223,032
Anticipated Adjustment to Base (Flood)		700,000						
2011 Bond-UV, Digester, Headworks IMP	490,499	16,346	-	-	-	-	-	-
Projected Bond-WWTP Improvements	-	-	-	-	-	-	-	\$20,500,000
Projected Bond-Sanitary Sewer Rehab	\$0	\$0	\$10,000,000	\$0	\$0	\$0	\$0	\$0
Bond Issuance Costs	-	-	125,000	-	-	-	-	125,000
Carryover, Encumbrances and Adjustments to Base	-	2,252,569	-	-	-	-	-	-
Total Uses of Funds	\$ 15,966,284	\$ 18,991,945	\$ 31,754,306	\$ 19,231,842	\$ 20,985,163	\$ 21,228,364	\$ 23,278,075	\$ 45,732,892
Sick/Vacation Accrual Adjustment	\$ 14,115	\$ 75,000	\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,413	\$ 86,946
Ending Fund Balance Before Reserves	\$ 12,495,508	\$ 8,835,962	\$ 8,232,771	\$ 8,654,975	\$ 8,345,788	\$ 8,848,110	\$ 8,389,626	\$ 8,301,223
Reserves								
Bond Reserves	\$ 670,139	\$ 670,139	\$ 1,620,139	\$ 1,620,139	\$ 1,620,139	\$ 1,620,139	\$ 1,620,139	\$ 3,567,139
Sick/Vacation/Bonus Reserve	584,523	602,059	620,120	638,724	657,886	677,622	697,951	718,890
Pay Period 27 Reserve	103,480	142,480	181,480	220,480	259,480	298,480	337,480	376,480
Operating Reserve	2,394,875	2,527,869	2,604,757	2,687,452	2,772,855	2,861,058	2,952,158	3,046,254
Capital Reserve	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Total Reserves	\$ 4,253,017	\$ 4,442,547	\$ 5,526,497	\$ 5,666,795	\$ 5,810,360	\$ 5,957,300	\$ 6,107,728	\$ 8,208,762
Ending Fund Balance After Reserves	\$ 8,242,491	\$ 4,393,416	\$ 2,706,274	\$ 2,988,180	\$ 2,535,429	\$ 2,890,810	\$ 2,281,898	\$ 92,461

Note:

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 A

	A	H	I	J	K	L	M	N
1	06-Jun-14							
2								
3								
4								
5								
6	Assumed Inflation Rate	2014	2015	2016	2017	2018	2019	2020
7	PROJECT NAME	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED
8								
9	Wastewater Treatment							
10	WWTF Pumps	\$150,000	\$0	\$150,000	\$0	\$0	\$0	\$0
11	WWTF Permit Improvements	\$365,241	\$1,650,000	\$150,000	\$0	\$750,000	\$1,500,000	\$0
12	WWTF Nutrient Management Grant							
13	WWTF Permit Improvements - Proj. Bond	\$0	\$0	\$0	\$0	\$0	\$0	\$18,500,000
14	WWTF Laboratory	\$25,163	\$0	\$50,000	\$0	\$0	\$0	\$0
15	Lower Boulder Creek Enhancement	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16	WWTF Headworks	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17	WWTF Headworks - Proj. Bond	\$0	\$0	\$0	\$0	\$0	\$0	\$0
18	WWTF Instrumentation/Control	\$586,677	\$540,800	\$0	\$674,918	\$701,915	\$729,992	\$759,191
19	WWTF Electrical	\$100,000	\$0	\$120,000	\$1,200,000	\$0	\$0	\$0
20	WWTF Activated Sludge	\$0	\$389,376	\$0	\$58,493	\$0	\$0	\$0
21	WWTF Primary Clarifiers	\$0	\$0	\$0	\$0	\$0	\$0	\$0
22	WWTF Secondary Clarifiers	\$0	\$0	\$0	\$0	\$0	\$0	\$0
23	WWTF UV Disinfection	\$3,257	\$0	\$0	\$0	\$0	\$0	\$0
24	WWTF UV Disinfection - Proj. Bond	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25	WWTF Permit Improvements - 2010 Bond	\$16,346	\$0	\$0	\$0	\$0	\$0	\$0
26	WWTF Rehabilitation	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
27	Valmont Butte	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	Biosolids Processing & Dewatering	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0
29	WWTF Biosolids Digester	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30	WWTF Biosolids Digester - Proj. Bond	\$0	\$0	\$0	\$0	\$0	\$0	\$0
31	WWTF Cogeneration	\$150,000	\$0	\$0	\$0	\$0	\$0	\$184,481
32	WWTF Digester Complex	\$0	\$0	\$0	\$0	\$0	\$200,000	\$2,000,000
33	September 2013 Flood Disaster Recovery	\$1,060,430	\$0	\$0	\$0	\$0	\$0	\$0
34	WWTF Digester Cleaning	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35	Bond Issuance Costs	\$0	\$125,000	\$0	\$0	\$0	\$0	\$125,000
36	Subtotal - Wastewater Treatment Plant	\$2,607,114	\$2,705,176	\$470,000	\$1,933,411	\$1,451,915	\$2,429,992	\$21,718,672
37								
38	Marshall Landfill							
39	Marshall Landfill	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0
40	Subtotal - Marshall Landfill	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0
41								
42	Wastewater System Monitoring and Metering							
43	Yards Master Plan Implementation	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0
44	Automated Meter Reading	\$0	\$0	\$0	\$0	\$0	\$0	\$0
45	Utility Billing Computer System	\$0	\$50,000	\$0	\$0	\$0	\$0	\$65,000
46	Subtotal - Monitoring and Metering	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$65,000
47								
48	Collection and Conveyance System Rehabilitation							
49	Collection System Monitoring	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0
50	Condition Assessment Program		\$2,030,000	\$2,061,200	\$2,093,648	\$2,127,394	\$2,162,490	\$2,198,989
51	Sanitary Sewer Rehabilitation	\$764,903	\$780,000	\$811,200	\$843,648	\$1,169,859	\$1,216,653	\$1,265,319
52	Sanitary Sewer Rehabilitation - Bond	\$0	\$10,000,000	\$0	\$0	\$0	\$0	\$0
53	Sanitary Sewer Manhole Rehabilitation	\$155,186	\$208,000	\$216,320	\$224,973	\$233,972	\$243,331	\$253,064
54	IBM Pump Station	\$814,799	\$500,000	\$0	\$0	\$0	\$0	\$0
55	Tier 1 Boulder Creek 2 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
56	Tier 1 Goose Creek 1/1A Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
57	Tier 1 Goose Creek 3 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
58	Tier 1 Goose Creek 5 Master Plan Project	\$0	\$0	\$0	\$0	\$25,000	\$647,590	\$1,346,988
59	Tier 2 Boulder Creek 1 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60	Tier 2 Boulder Creek 3 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
61	Tier 2 Boulder Creek 4 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62	Tier 2 Goose Creek 4 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
63	Tier 2 Gunbarrel 1 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
64	Tier 2 Gunbarrel 2 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
65	Tier 2 South Boulder Creek 1 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
66	Subtotal - Sewer System Rehabilitation	\$1,834,888	\$13,518,000	\$3,088,720	\$3,162,269	\$3,556,224	\$4,270,063	\$5,064,360
67								
68	Wastewater System Expansion							
69	Annexation Related WW System Expansion	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70	Subtotal - Wastewater System Expansion	\$0	\$0	\$0	\$0	\$0	\$0	\$0
71								
72	TOTAL CAPITAL USES OF FUNDS	\$4,492,002	\$16,273,176	\$3,658,720	\$5,095,680	\$5,008,139	\$6,700,055	\$26,848,032

**CITY OF BOULDER
2015 FUND FINANCIAL**

STORMWATER/FLOOD MANAGEMENT UTILITY

	2013 Actual	2014 Revised	2015 Projected	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Beginning Fund Balance	\$ 15,373,639	\$ 16,195,856	\$ 6,652,416	\$ 12,417,160	\$ 9,336,862	\$ 7,398,064	\$ 6,142,066	\$ 6,195,492
Sources of Funds								
Operating-								
Service Charge Fees	\$ 5,505,792	\$ 5,157,008	\$ 5,322,342	\$ 9,119,407	\$ 9,503,152	\$ 9,903,045	\$ 10,319,765	\$ 10,754,020
Projected Rate Increases	-	154,710	3,778,863	364,776	380,126	396,122	412,791	430,161
TOTAL OPERATING SOURCES OF FUNDS	5,505,792	5,311,719	9,101,205	9,484,184	9,883,278	10,299,166	10,732,555	11,184,181
Non-Operating--								
Plant Investment Fees	591,301	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Urban Drainage District Funds	-	2,003,164	267,500	170,000	500,000	412,000	424,360	437,091
State and Federal Grants	-	2,900,000	4,500,000	-	-	-	-	-
Interest on Investments	102,124	404,896	99,786	248,343	233,422	221,942	184,262	185,865
Intergovernmental Transfers (KICP Program)	120,406	140,000	144,200	148,526	152,982	157,571	162,298	167,167
Rent and other miscellaneous revenue	46,939	40,000	40,000	40,000	5,000	5,000	5,000	5,000
Miscellaneous nonrecurring revenue	-	-	-	-	-	-	-	-
Sale of Real Estate - Yards Masterplan	-	-	357,375	-	-	-	-	-
Projected Bonds	-	-	16,000,000	-	-	10,150,000	-	-
TOTAL NON-OPERATING SOURCES OF FUNDS	\$860,770	\$5,888,060	\$21,808,861	\$1,006,869	\$1,291,403	\$11,346,513	\$1,175,920	\$1,195,123
Total Sources of Funds	\$ 6,366,562	\$ 11,199,779	\$ 30,910,066	\$10,491,053	\$ 11,174,681	\$ 21,645,679	\$ 11,908,476	\$ 12,379,304
Uses of Funds								
Operating-								
Administration	\$ 410,081	\$ 400,927	\$ 433,923	\$ 446,941	\$ 460,349	\$ 474,159	\$ 488,384	\$ 503,036
Planning and Project Management	1,088,823	1,082,866	1,245,255	1,282,613	1,321,091	1,360,724	1,401,545	1,443,592
Stormwater Contract Management	44,444	49,442	49,442	50,925	52,453	54,027	55,647	57,317
Stormwater Quality and Education	840,989	953,534	943,886	972,203	1,001,369	1,031,410	1,062,352	1,094,223
System Maintenance	830,109	817,412	838,474	863,628	889,537	916,223	943,710	972,021
Sick/Vacation Accrual	(13,064)	50,000	50,000	51,500	53,045	54,636	56,275	57,964
Debt--								
Goose Creek 1998 Revenue Bond	-	-	-	-	-	-	-	-
Refunding of the Goose Creek 1998 Revenue Bond	391,542	384,042	387,038	381,675	386,138	380,175	-	-
Projected Bond - South Boulder Creek	-	-	-	-	-	950,000	950,000	950,000
Projected Bond - Wonderland Creek	-	-	1,520,000	1,520,000	1,520,000	1,520,000	1,520,000	1,520,000
Projected Bond - Boulder Transit Village	-	-	-	-	-	-	-	-
Cost Allocation	211,245	219,451	219,451	230,424	241,945	254,042	266,744	280,081
Planning & Development Services	124,768	128,511	132,367	136,338	140,428	144,641	148,980	153,450
General Fund - Utilities Attorney	10,631	17,629	19,986	20,785	21,617	22,482	23,381	24,082
Capital	\$1,591,713	9,821,500	\$3,280,500	7,665,820	7,078,553	\$5,643,795	4,994,306	\$5,670,922
Projected Bond - South Boulder Creek	-	-	-	-	-	10,000,000	-	\$0
Projected Bond - Wonderland Creek	-	-	\$16,000,000	-	-	-	-	-
Projected Bond Issuance Costs	-	\$0	\$75,000	-	-	150,000	-	-
Encumbrances, Carryover and Adjustments to Base	-	6,867,904	-	-	-	-	-	-
Total Uses of Funds	\$ 5,531,281	\$ 20,793,218	\$ 25,195,322	\$ 13,622,851	\$ 13,166,524	\$ 22,956,313	\$ 11,911,326	\$ 12,726,687

**CITY OF BOULDER
2015 FUND FINANCIAL**

STORMWATER/FLOOD MANAGEMENT UTILITY

	2013	2014	2015	2016	2017	2018	2019	2020
	Actual	Revised	Projected	Projected	Projected	Projected	Projected	Projected
Sick and Vacation Accrual Adjustment	\$ (13,064)	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275	\$ 57,964
Ending Fund Balance Before Reserves	\$ 16,195,856	\$ 6,652,416	\$ 12,417,160	\$ 9,336,862	\$ 7,398,064	\$ 6,142,066	\$ 6,195,492	\$ 5,906,072
Reserves								
Bond Reserves	\$ 324,984	\$ 324,984	\$ 1,844,984	\$ 1,844,984	\$ 2,282,019	\$ 2,907,035	\$ 2,907,035	\$ 2,907,035
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
Sick/Vacation/Bonus Reserve	59,494	61,279	63,117	65,011	66,961	68,970	71,039	73,170
Pay Period 27 Reserve	21,480	34,480	47,480	60,480	73,480	86,480	99,480	113,169
Operating Reserve	887,007	929,943	983,196	1,013,839	1,045,458	1,078,086	1,111,755	1,146,441
Capital Reserve	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Total Reserves	\$ 2,542,964	\$ 2,600,686	\$ 4,188,777	\$ 4,234,314	\$ 4,717,918	\$ 5,390,571	\$ 5,439,309	\$ 5,489,815
Ending Fund Balance After Reserves	\$13,652,892	\$4,051,731	\$8,228,383	\$5,102,548	\$2,680,146	\$751,496	\$756,183	\$416,257

Note:

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 A

	A	B	G	H	I	J	K	L	M
1	6-Jun-14								
2			CITY OF BOULDER						
3			2015-2020 CAPITAL IMPROVEMENT PROGRAM						
4			STORMWATER AND FLOOD MANAGEMENT UTILITY FUND						
5									
6	Assumed Inflation Rate	4.00%	2014	2015	2016	2017	2018	2019	2020
7	PROJECT NAME		PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED
8									
9	Major Drainageways								
10	Elmer's Twomile Creek	431332	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Goose Creek	431710	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	South Boulder Creek	431202	\$274,539	\$250,000	\$750,000	\$750,000	\$0	\$0	\$0
13	South Boulder Creek - Bond Proceeds		\$0	\$0	\$0	\$0	\$10,000,000	\$0	\$0
14	Bond Issuance Costs		\$0	\$0	\$0	\$0	\$150,000	\$0	\$0
15	Skunk Canyon Creek		\$0	\$0	\$0	\$100,000	\$500,000	\$0	\$0
16	Sunshine Creek		\$0	\$0	\$0	\$0	\$0	\$0	\$0
17	Twomile Canyon Creek		\$0	\$0	\$0	\$100,000	\$500,000	\$0	\$0
18	Bluebell Canyon Creek - King's Gulch		\$0	\$0	\$0	\$100,000	\$500,000	\$0	\$0
19	Viele Channel		\$0	\$0	\$0	\$0	\$0	\$0	\$0
20	Four Mile Canyon Creek	431729	\$0	\$0	\$0	\$0	\$500,000	\$1,250,000	\$1,250,000
21	Four Mile Canyon Creek - Upland to Violet	431729	\$0	\$0	\$500,000	\$500,000	\$500,000	\$250,000	\$0
22	Four Mile Canyon Creek - 19th to 22nd	431730	\$1,331,454	\$0	\$0	\$0	\$0	\$0	\$0
23	Bear Canyon Creek	431010	\$0	\$100,000	\$500,000	\$0	\$0	\$0	\$0
24	Gregory Canyon Creek	431702	\$0	\$100,000	\$500,000	\$0	\$0	\$0	\$0
25	Boulder Creek	431015	\$100,000	\$500,000	\$2,500,000	\$2,500,000	\$0	\$0	\$0
26	Boulder Slough	431016	\$788,164	\$0	\$0	\$0	\$0	\$0	\$0
27	Wonderland Creek	431003	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	Wonderland Creek - Foothills to 30th	431011	\$2,405,420	\$0	\$0	\$0	\$0	\$0	\$0
29	Wonderland Creek at 28th St.	431012	\$1,027,423	\$0	\$0	\$0	\$0	\$0	\$0
30	Wonderland Creek - Bond Proceeds		\$0	\$16,000,000	\$0	\$0	\$0	\$0	\$0
31	Bond Issuance Costs		\$0	\$75,000	\$0	\$0	\$0	\$0	\$0
32	Preflood Acquisition	431622	\$2,856,395	\$500,000	\$500,000	\$550,000	\$600,000	\$632,660	\$657,966
33	Greenways Program Transfer	431630	\$613,596	\$97,500	\$97,500	\$97,500	\$97,500	\$97,500	\$128,303
34	Subtotal - Major Drainageway Improvements		\$9,396,991	\$17,622,500	\$5,347,500	\$4,697,500	\$13,347,500	\$2,230,160	\$2,036,269
35									
36	Miscellaneous								
37	Yards Master Plan Implementation	431039	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0
38	CU Bike/Ped Bridge Replacement I	431054	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0
39	September 2013 Flood Disaster Recovery	431913	\$5,549,889						
40	Utility Billing Computer System	431453	\$0	\$50,000	\$0	\$0	\$0	\$0	\$65,000
41	Subtotal - Miscellaneous Drainage Improvements		\$5,799,889	\$50,000	\$0	\$0	\$0	\$0	\$65,000
42									
43	Stormwater Management								
44	Upper Goose Creek	431459	\$0	\$175,000	\$750,000	\$750,000	\$750,000	\$1,000,000	\$1,165,547
45	Local Drainage Improvements			\$780,000	\$811,200	\$843,648	\$877,394	\$912,490	\$948,989
46	Stormwater Quality Improvements	431775	\$119,996	\$156,000	\$162,240	\$168,730	\$175,479	\$182,498	\$189,798
47	Storm Sewer Rehabilitation	431760	\$378,270	\$260,000	\$270,400	\$281,216	\$292,465	\$304,163	\$632,660
48	Transportation Coordination	431780	\$490,719	\$312,000	\$324,480	\$337,459	\$350,958	\$364,996	\$632,660
49	Subtotal - Localized Drainage Improvements		\$988,985	\$1,683,000	\$2,318,320	\$2,381,053	\$2,446,295	\$2,764,147	\$3,569,653
50									
51	TOTAL CAPITAL USES OF FUNDS		\$16,185,865	\$19,355,500	\$7,665,820	\$7,078,553	\$15,793,795	\$4,994,306	\$5,670,922

**CITY OF BOULDER
2015 FUND FINANCIAL**

WATER UTILITY

	2013 Actual	2014 Revised	2015 Proposed	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Beginning of Year Fund Balance	\$ 35,375,682	\$ 34,394,473	\$ 30,126,921	\$ 30,400,725	\$ 29,013,838	\$ 30,358,623	\$ 34,076,733	\$ 38,389,056
Sources of Funds								
Operating-								
Sale of Water to General Cust	\$ 21,066,313	\$ 21,460,807	\$ 22,363,662	\$ 23,528,592	\$ 25,461,486	\$ 27,553,185	\$ 29,816,739	\$ 31,071,211
Projected Rate Increase	-	858,432	1,118,183	1,882,287	2,036,919	2,204,255	1,192,670	1,242,848
Bulk/Irrigation Water Sales	147,045	141,050	143,050	143,050	143,050	143,050	143,050	143,050
Hydroelectric Revenue	1,948,628	2,405,978	2,278,800	2,227,500	2,290,500	2,313,000	2,313,000	2,313,000
Miscellaneous Operating Revenues	36,129	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Non-Operating--								
Plant Investment Fees	3,417,766	2,200,000	2,200,000	2,200,000	2,000,000	2,000,000	2,000,000	2,000,000
Connection Charges	257,551	130,000	130,000	130,000	130,000	130,000	130,000	130,000
Special Assessments	100,035	5,000	2,505,000	2,505,000	5,000	5,000	5,000	5,000
State & Federal Grants	205,068	-	1,125,000	-	-	-	-	-
Interest on Investments	219,563	257,959	301,269	456,011	435,208	758,966	851,918	959,726
Rent, assessments and other misc revenues	121,033	20,000	20,500	20,500	20,500	20,500	20,500	20,500
Sale of Real Estate	-	450,000	714,750	-	-	-	-	-
Transfer from General Fund - Fire Training Center	92,785	92,785	92,785	92,785	92,785	92,785	92,785	92,785
Projected Bond Proceeds	-	-	-	12,125,000	-	34,300,000	8,134,000	-
Total Sources of Funds	\$27,611,915	\$ 28,047,011	\$33,017,999	\$ 45,335,726	\$ 32,640,447	\$ 69,545,741	\$ 44,724,662	\$ 38,003,121
Uses of Funds								
Operating-								
Administration	\$ 953,671	\$ 883,659	\$ 932,432	\$ 960,405	\$ 989,217	\$ 1,018,894	\$ 1,049,460	\$ 1,080,944
Planning and Project Management	567,134	602,092	617,392	635,914	654,991	674,641	694,880	715,727
Water Resources and Hydroelectric Operations	2,623,220	2,035,907	2,435,944	2,509,022	2,584,293	2,661,822	2,741,676	2,823,927
Water Treatment	4,593,810	4,699,333	4,670,125	4,810,229	4,954,536	5,103,172	5,256,267	5,413,955
Water Quality and Environmental Svcs	981,412	1,004,893	1,040,379	1,071,590	1,103,738	1,136,850	1,170,956	1,206,084
Water Conservation	384,948	395,910	425,743	438,515	451,671	465,221	479,177	493,553
System Maintenance	3,214,315	3,165,659	3,148,554	3,243,011	3,340,301	3,440,510	3,543,725	3,650,037
Windy Gap Payment	2,394,139	2,633,250	2,714,004	2,696,959	2,314,181	251,200	258,736	266,498
Sick and Vacation Accrual	(56,413)	100,000	100,000	103,000	106,090	109,273	112,551	115,927
TOTAL OPERATING USES OF FUNDS	\$15,656,236	\$ 15,520,703	\$16,084,573	\$16,468,645	\$16,499,018	\$14,861,582	\$15,307,429	\$15,766,652

**CITY OF BOULDER
2015 FUND FINANCIAL**

WATER UTILITY								
	2013 Actual	2014 Revised	2015 Proposed	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Debt-								
BRWTP 1996 Revenue Bond; Refunding in 2006	854,438	856,594	857,708	858,531	-	-	-	-
Refunding of the 1999 and 2000 Revenue Bonds	2,512,621	2,523,521	2,522,054	2,517,388	2,524,233	2,524,650	1,375,102	-
Lakewood 2001 Rev Bond; Refunded in 2012	2,057,650	2,057,000	2,065,733	2,065,950	2,065,333	2,072,083	2,080,817	2,081,367
Projected Bond-Betasso WTP Improvements	-	-	-	1,140,000	1,140,000	1,140,000	1,140,000	1,140,000
Projected Bond-NCWCD Conveyance Line	-	-	-	-	-	3,224,177	3,224,177	3,224,177
Projected Bond - Barker Dam	-	-	-	-	-	-	763,244	763,244
Transfers -								
Cost Allocation	1,208,285	1,255,221	1,255,221	1,317,982	1,383,881	1,453,075	1,525,729	1,602,015
Planning & Development Services	206,373	212,564	218,941	225,509	232,275	239,243	246,420	253,813
General Fund - City Attorney	31,893	52,888	59,958	62,356	64,851	67,445	70,142	72,247
Capital								
Capital	\$6,009,216	4,025,000	9,780,007	\$10,044,251	7,492,162	6,065,949	6,657,687	12,068,898
Projected Bond - Betasso WTP IMP	-	-	-	\$12,000,000	-	-	-	-
Projected Bond - NCWCD Conveyance	-	-	-	-	-	\$33,938,701	-	-
Projected Bond - Barker Dam	-	-	-	-	-	-	\$8,034,143	-
Projected Bond - Issuance Costs	-	-	-	\$125,000	-	\$350,000	100,000	-
Encumbrances, Carryover and Adjustments to Base	-	5,911,071	-	-	-	-	-	-
Total Uses of Funds	\$ 28,536,711	\$ 32,414,562	\$ 32,844,195	\$46,825,613	\$ 31,401,752	\$65,936,903	\$ 40,524,889	\$36,972,412
Sick/Vacation Accrual Adjustment	\$ (56,413)	\$ 100,000	\$ 100,000	\$ 103,000	\$ 106,090	\$ 109,273	\$ 112,551	\$ 115,927
Ending Fund Balance Before Reserves	\$ 34,394,473	\$ 30,126,921	\$ 30,400,725	\$ 29,013,838	\$ 30,358,623	\$ 34,076,733	\$ 38,389,056	\$ 39,535,693
Reserves								
Bond Reserve	\$ 3,034,796	\$ 3,034,796	\$ 3,034,796	\$ 4,174,796	\$ 3,321,429	\$ 6,545,606	\$ 7,308,850	\$ 7,731,680
Lakewood Pipeline Remediation Reserve	14,932,560	15,588,815	16,254,473	17,214,860	18,204,457	19,224,155	19,953,763	21,026,667
Sick/Vacation/Bonus Reserve	574,219	591,445	609,189	627,464	646,288	665,677	685,647	706,217
Pay Period 27 Reserve	112,400	163,400	214,400	265,400	316,400	367,400	418,400	469,400
Operating Reserve	4,275,697	4,260,344	4,404,673	4,518,623	4,545,006	4,155,336	4,287,430	4,423,682
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
Total Reserves	\$ 24,929,671	\$ 25,638,800	\$ 26,517,531	\$ 28,801,143	\$ 29,033,581	\$ 32,958,174	\$ 34,654,090	\$ 36,357,645
Ending Fund Balance After Reserves	\$ 9,464,801	\$ 4,488,121	\$ 3,883,194	\$ 212,694	\$ 1,325,042	\$ 1,118,559	\$ 3,734,966	\$ 3,178,048

Note:
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

	A	H	I	J	K	L	M	N	
1	06-Jun-14			CITY OF BOULDER					
2				2015-2020 CAPITAL IMPROVEMENT PROGRAM					
3				WATER UTILITY FUND					
4									
5									
6	Assumed Inflation Rate	2014	2015	2016	2017	2018	2019	2020	
7	PROJECT NAME	REVISED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	
8									
9	Treated Water Pressure Reducing and Hydroelectric Facilities								
10	Kohler Hydro/PRV Facility	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	
11	Maxwell Hydro/PRV Facility	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	
12	Orodel Hydro/PRV Facility	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
13	Sunshine Hydro/PRV Facility	\$0	\$0	\$0	\$271,875	\$0	\$0	\$0	
14	Pearl Street Hydro/PRV Facility	\$0	\$0	\$0	\$0	\$24,333	\$243,331	\$0	
15	Subtotal - Treated Water PRV and Hydro	\$100,000	\$0	\$0	\$271,875	\$24,333	\$243,331	\$0	
16									
17	Water Treatment Facilities								
18	Betasso WTF	\$815,985	\$700,000	\$0	\$0	\$0	\$0	\$0	
19	Betasso WTF - Bond Proceeds	\$0	\$0	\$12,000,000	\$0	\$0	\$0	\$0	
20	Bond Issuance Costs	\$0	\$0	\$125,000	\$0	\$350,000	\$100,000	\$0	
21	Boulder Reservoir WTF	\$131,886	\$0	\$164,000	\$0	\$0	\$0	\$0	
22	Boulder Res WTF - Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
23	Subtotal - Water Treatment Facilities	\$947,871	\$700,000	\$12,289,000	\$0	\$350,000	\$100,000	\$0	
24									
25	Treated Water Pump Stations								
26	Cherryvale Pump Station	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
27	Boulder Reservoir WTF High Service Pump Station	\$162,800	\$0	\$0	\$0	\$0	\$0	\$0	
28	Iris Pump Stations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
29	Subtotal - Treated Water Pump Stations	\$162,800	\$0	\$0	\$0	\$0	\$0	\$0	
30									
31	Treated Water Storage Tanks								
32	Gunbarrel Storage Tank	\$524,830	\$0	\$0	\$0	\$0	\$0	\$0	
33	Maxwell Storage Tank	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
34	Booten Storage Tank	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
35	Devil's Thumb Storage Tank	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	
36	Kohler Storage Tank	\$0	\$103,487	\$799,875	\$0	\$0	\$0	\$0	
37	Chautauqua Storage Tank	\$155,219	\$0	\$0	\$0	\$0	\$0	\$0	
38	Betasso Storage Tank	\$0	\$0	\$0	\$292,465	\$0	\$0	\$0	
39	Boulder Reservoir Storage Tank	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
40	Subtotal - Treated Water Storage Tanks	\$680,049	\$153,487	\$799,875	\$292,465	\$0	\$0	\$0	
41									
42	Treated Water Distribution System								
43	Zone Isolation Valves	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
44	Cathodic Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
45	Waterline Replacement	\$3,642,831	\$3,224,000	\$3,352,960	\$3,487,078	\$3,626,562	\$3,771,624	\$3,224,033	
46	Subtotal - Treated Water Distribution System	\$3,642,831	\$3,224,000	\$3,352,960	\$3,487,078	\$3,626,562	\$3,771,624	\$3,224,033	
47									
48	Treated Water Transmission System								
49	Sunshine Transmission Pipe	\$978,252	\$1,000,000	\$0	\$0	\$0	\$0	\$0	
50	Boulder Canyon - Orodel to Fourmile Pipe	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
51	Mountain Transmission Pipes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
52	Zone 1 Transmission Pipes	\$0	\$0	\$0	\$0	\$250,000	\$0	\$0	
53	Zone 2 Transmission Pipes	\$0	\$0	\$0	\$250,000	\$0	\$0	\$250,000	
54	Zone 3 Transmission Pipes	\$0	\$0	\$1,200,000	\$0	\$0	\$250,000	\$0	
55	Subtotal - Treated Water Transmission System	\$978,252	\$1,000,000	\$1,200,000	\$250,000	\$250,000	\$250,000	\$250,000	
56									
57	Source Water Transmission System								
58	Lakewood Pipeline	\$260,000	\$270,400	\$0	\$0	\$0	\$316,330	\$0	
59	Silver Lake Pipeline	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
60	Source Water Transmission Pipe Inspections	\$73,653	\$0	\$0	\$0	\$0	\$0	\$0	
61	Subtotal - Source Water Transmission System	\$333,653	\$270,400	\$0	\$0	\$0	\$316,330	\$0	
62									
63	Barker Water System								
64	Barker Gravity Pipeline Repair	\$402,711	\$378,560	\$667,416	\$612,436	\$636,933	\$662,410	\$688,907	
65	Barker-Kossler Penstock Repair	\$0	\$0	\$0	\$116,986	\$0	\$0	\$0	
66	Barker Dam Outlet	\$0	\$0	\$50,000	\$175,000	\$803,414	\$0	\$0	
67	Barker Dam Outlet - Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$8,034,143	\$0	
68	Barker Dam and Reservoir	\$119,040	\$378,560	\$0	\$0	\$0	\$0	\$0	
69	Barker Hydro System Integration	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
70	Barker Relicensing	\$109,612	\$0	\$0	\$0	\$0	\$0	\$0	
71	Barker Instream Flow Release	\$6,052	\$0	\$0	\$0	\$0	\$0	\$0	
72	Barker Residence	\$443,281	\$0	\$0	\$0	\$0	\$0	\$0	
73	Betasso Penstock	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
74	Kossler Dam	\$192,022	\$0	\$0	\$0	\$0	\$0	\$0	
75	Subtotal - Barker Water System	\$1,272,718	\$757,120	\$717,416	\$904,422	\$1,440,347	\$8,696,554	\$688,907	
76									
77	Raw Water Storage Reservoirs								
78	Albion Dam	\$80,000	\$0	\$0	\$0	\$0	\$0	\$0	
79	Silver Lake Dam	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0	
80	Island Lake Dam	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
81	Green Lake 1 Dam	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
82	Green Lake 2 Dam - Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
83	Green Lake 2 Dam	\$75,000	\$0	\$0	\$0	\$0	\$75,000	\$468,051	
84	Green Lake 3 Dam	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
85	Goose Lake Dam	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	

Attachment B

	A	H	I	J	K	L	M	N	
1	06-Jun-14			CITY OF BOULDER					
2				2015-2020 CAPITAL IMPROVEMENT PROGRAM					
3				WATER UTILITY FUND					
4									
5									
6	Assumed Inflation Rate	2014	2015	2016	2017	2018	2019	2020	
7	PROJECT NAME	REVISED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	
8									
86	Boulder Reservoir	\$0	\$0	\$0	\$0	\$0	\$0	\$118,434	
87	Lakewood Dam	\$0	\$0	\$0	\$0	\$124,707	\$0	\$0	
88	Skyscraper Dam	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
89	Wittermyer Ponds	\$0	\$0	\$0	\$0	\$0	\$100,000	\$492,685	
90	Subtotal - Raw Water Storage Reservoirs	\$155,000	\$95,000	\$0	\$0	\$124,707	\$175,000	\$1,079,169	
91									
92	Other Raw Water Facilities								
93	Farmer's Ditch	\$0	\$0	\$0	\$0	\$0	\$108,160	\$0	
94	Anderson Ditch	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
95	Watershed Improvements	\$145,243	\$80,000	\$80,000	\$0	\$0	\$0	\$100,000	
96	Nederland WWTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
97	Instream Flow Structures and Gaging	\$48,428	\$0	\$0	\$0	\$0	\$0	\$0	
98	Como Creek Diversion Structure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
99	Lakewood Diversion Structure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
100	Silver Lake Diversion Structure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
101	NCWCD Conveyance - Boulder Feeder Canal	\$61,297	\$0	\$0	\$0	\$0	\$0	\$0	
102	NCWCD Conveyance - Carter Lake Pipeline	\$250,000	\$500,000	\$850,000	\$2,036,322	\$0	\$0	\$0	
103	NCWCD Conveyance - Bond Proceeds	\$0	\$0	\$0	\$0	\$33,938,701	\$0	\$0	
104	Subtotal - Other Raw Water Facilities	\$504,968	\$580,000	\$930,000	\$2,036,322	\$33,938,701	\$108,160	\$100,000	
105									
106	Source Water Pressure Reducing, Pumping and Hydroelectric								
107	Lakewood Hydroelectric/PRV	\$0	\$0	\$130,000	\$0	\$0	\$300,000	\$0	
108	Silver Lake Hydroelectric/PRV	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	
109	Boulder Reservoir Intake and Pumping	\$12,455	\$0	\$0	\$0	\$0	\$0	\$0	
110	Betasso Hydroelectric / Pressure Reducing Facility	\$0	\$0	\$0	\$0	\$250,000	\$0	\$0	
111	Barker Dam Hydroelectric	\$0	\$0	0	\$0	\$50,000	\$390,832	\$0	
112	Barker Dam Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$3,908,317	
113	Boulder Canyon Hydroelectric	\$134,397	\$0	\$0	\$0	\$0	\$0	\$0	
114	Boulder Canyon Hydro - Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
115	Boulder Canyon Hydro - Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
116	Carter Lake Hydroelectric	\$0	\$0	\$0	\$0	\$50,000	\$250,000	\$0	
117	Carter Lake Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$2,500,000	
118	Source Water Pressure Reducing, Pumping and Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$193,472	
119	Subtotal - Source Water PRV, Pumping and Hydro	\$146,852	\$150,000	\$130,000	\$0	\$350,000	\$940,832	\$6,601,789	
120									
121	Water Distribution System Expansion								
122	Annexation Related Water System Expansion	\$0	\$2,500,000	\$2,500,000	\$0	\$0	\$0	\$0	
123	Subtotal - Water Distribution System Expansion	\$0	\$2,500,000	\$2,500,000	\$0	\$0	\$0	\$0	
124									
125	Water System Monitoring and Metering								
126	Automated Meter Reading	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
127	Water System Security/Quality Improvements	\$13,561	\$150,000	\$150,000	\$150,000	\$150,000	\$90,000	\$0	
128	Source Water Monitoring and Protection	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$0	
129	Distribution System Water Quality	\$12,598	\$0	\$0	\$0	\$0	\$0	\$0	
130	Data Communications System	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
131	September 2013 Flood Disaster Recovery	\$899,373	\$0	\$0	\$0	\$0	\$0	\$0	
132	Yards Master Plan Implementation	\$99,875	\$0	\$0	\$0	\$0	\$0	\$0	
133	Utility Billing Computer System	\$0	\$100,000	\$0	\$0	\$0	\$0	\$125,000	
134	Subtotal - Water System Monitoring and Metering	\$1,025,407	\$350,000	\$250,000	\$250,000	\$250,000	\$190,000	\$125,000	
135									
136	TOTAL CAPITAL USES OF FUNDS	\$9,950,400	\$9,780,007	\$22,169,251	\$7,492,162	\$40,354,649	\$14,791,830	\$12,068,898	

**CITY OF BOULDER
2015 FUND FINANCIAL**

WASTEWATER UTILITY

	2013 Actual	2014 Revised	2015 Proposed	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Beginning Fund Balance	\$ 13,034,309	\$ 12,495,508	\$ 8,835,962	\$ 7,363,850	\$ 7,100,755	\$ 6,318,730	\$ 7,133,385	\$ 7,739,976
Sources of Funds								
Operating-		5.0%	10.0%	7.0%	7.0%	10.0%	9.0%	8.0%
Sewer Charges to General Customers	\$ 13,900,486	\$ 13,426,614	\$ 14,126,140	\$ 15,569,832	\$ 16,693,039	\$ 17,897,275	\$ 19,726,377	\$ 21,544,754
Projected Rate Increase	-	671,331	1,412,614	1,089,888	1,168,513	1,789,728	1,775,374	1,723,580
Surcharge/ Pretreatment Fees	157,674	118,000	118,000	118,000	118,000	118,000	118,000	118,000
Plant Investment Fees	952,501	700,000	700,000	700,000	700,000	700,000	700,000	700,000
Connection Charges	16,491	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Special Assessments	71,504	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Federal & State Grants	-	200,000	1,969,025	-	-	-	-	-
Interest on Investments	88,616	124,955	132,539	147,277	177,519	189,562	214,002	232,199
Rent and other miscellaneous revenue	226,096	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Sale of Real Estate - Yards Masterplan	-	-	357,375	-	-	-	-	-
Transfer from Other Funds	-	-	-	-	-	-	-	-
Bond Proceeds	-	-	10,125,000	-	-	-	-	20,625,000
Total Sources of Funds	\$ 15,413,369	\$ 15,257,399	\$ 28,957,194	\$ 17,641,497	\$ 18,873,571	\$ 20,711,065	\$ 22,550,252	\$ 44,960,034
Uses of Funds								
Operating-								
Administration	\$ 507,244	\$ 566,554	\$ 586,577	\$ 604,174	\$ 622,300	\$ 640,969	\$ 660,198	\$ 680,004
Planning and Project Management	195,715	352,768	361,050	371,882	383,038	394,529	406,365	418,556
Wastewater Quality & Environmental Svcs	1,113,531	1,154,257	1,211,342	1,247,682	1,285,113	1,323,666	1,363,376	1,404,277
System Maintenance	1,754,263	1,697,108	1,866,407	1,922,399	1,980,071	2,039,473	2,100,658	2,163,677
Wastewater Treatment	4,910,241	5,134,520	5,178,630	5,333,989	5,494,009	5,658,829	5,828,594	6,003,451
Sick/Vacation Accrual	14,115	75,000	75,000	77,250	79,568	81,955	84,413	86,946
Debt-								
2012 Refunding of the WWTP 2005 Revenue Bond	3,467,233	3,463,046	3,439,463	3,199,450	3,177,125	3,153,292	3,145,375	3,132,458
WWTP UV, Digester, Headworks Imp 2010 Rev Bond	673,963	670,854	672,638	673,863	670,938	672,700	674,013	669,888
WWTP Nutrient Compliance Bond 2020	-	-	-	-	-	-	-	1,947,500
Sanitary Sewer Rehabilitation Bond 2015	-	-	950,000	950,000	950,000	950,000	950,000	950,000
2006 Refunding of the 1992 Marshall Landfill Bond	-	-	-	-	-	-	-	-
Transfers-								
Cost Allocation	866,761	900,430	900,430	945,452	992,725	1,042,361	1,094,479	1,149,203
Planning & Development Services	207,000	213,210	219,607	226,195	232,981	239,970	247,169	254,584
General Fund - Utilities Attorney	10,631	17,629	19,986	20,785	21,617	22,482	23,381	24,316

**CITY OF BOULDER
2015 FUND FINANCIAL**

WASTEWATER UTILITY

	2013 Actual	2014 Revised	2015 Proposed	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Capital Improvement Program	\$1,755,088	1,777,654	4,898,176	2,408,720	3,845,680	3,758,139	5,450,055	4,973,032
Anticipated Adjustment to Base (Flood)		700,000						
2011 Bond-UV, Digester, Headworks IMP	490,499	16,346	-	-	-	-	-	-
Projected Bond-WWTP Improvements	-	-	-	-	-	-	-	\$20,500,000
Projected Bond-Sanitary Sewer Rehab	\$0	\$0	\$10,000,000	\$0	\$0	\$0	\$0	\$0
Bond Issuance Costs	-	-	125,000	-	-	-	-	125,000
Carryover, Encumbrances and Adjustments to Base	-	2,252,569	-	-	-	-	-	-
Total Uses of Funds	\$ 15,966,284	\$ 18,991,945	\$ 30,504,306	\$ 17,981,842	\$ 19,735,163	\$ 19,978,364	\$ 22,028,075	\$ 44,482,892
Sick/Vacation Accrual Adjustment	\$ 14,115	\$ 75,000	\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,413	\$ 86,946
Ending Fund Balance Before Reserves	\$ 12,495,508	\$ 8,835,962	\$ 7,363,850	\$ 7,100,755	\$ 6,318,730	\$ 7,133,385	\$ 7,739,976	\$ 8,304,062
Reserves								
Bond Reserves	\$ 670,139	\$ 670,139	\$ 1,620,139	\$ 1,620,139	\$ 1,620,139	\$ 1,620,139	\$ 1,620,139	\$ 3,567,139
Sick/Vacation/Bonus Reserve	584,523	602,059	620,120	638,724	657,886	677,622	697,951	718,890
Pay Period 27 Reserve	103,480	142,480	181,480	220,480	259,480	298,480	337,480	376,480
Operating Reserve	2,394,875	2,527,869	2,604,757	2,687,452	2,772,855	2,861,058	2,952,158	3,046,254
Capital Reserve	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Total Reserves	\$ 4,253,017	\$ 4,442,547	\$ 5,526,497	\$ 5,666,795	\$ 5,810,360	\$ 5,957,300	\$ 6,107,728	\$ 8,208,762
Ending Fund Balance After Reserves	\$ 8,242,491	\$ 4,393,416	\$ 1,837,353	\$ 1,433,960	\$ 508,370	\$ 1,176,086	\$ 1,632,248	\$ 95,300

Note:

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

	A	H	I	J	K	L	M	N
1	06-Jun-14							
2								
3								
4								
5								
6	Assumed Inflation Rate	2014	2015	2016	2017	2018	2019	2020
7	PROJECT NAME	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED
8								
9	Wastewater Treatment							
10	WWTF Pumps	\$150,000	\$0	\$150,000	\$0	\$0	\$0	\$0
11	WWTF Permit Improvements	\$365,241	\$1,650,000	\$150,000	\$0	\$750,000	\$1,500,000	\$0
12	WWTF Nutrient Management Grant							
13	WWTF Permit Improvements - Proj. Bond	\$0	\$0	\$0	\$0	\$0	\$0	\$18,500,000
14	WWTF Laboratory	\$25,163	\$0	\$50,000	\$0	\$0	\$0	\$0
15	Lower Boulder Creek Enhancement	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16	WWTF Headworks	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17	WWTF Headworks - Proj. Bond	\$0	\$0	\$0	\$0	\$0	\$0	\$0
18	WWTF Instrumentation/Control	\$586,677	\$540,800	\$0	\$674,918	\$701,915	\$729,992	\$759,191
19	WWTF Electrical	\$100,000	\$0	\$120,000	\$1,200,000	\$0	\$0	\$0
20	WWTF Activated Sludge	\$0	\$389,376	\$0	\$58,493	\$0	\$0	\$0
21	WWTF Primary Clarifiers	\$0	\$0	\$0	\$0	\$0	\$0	\$0
22	WWTF Secondary Clarifiers	\$0	\$0	\$0	\$0	\$0	\$0	\$0
23	WWTF UV Disinfection	\$3,257	\$0	\$0	\$0	\$0	\$0	\$0
24	WWTF UV Disinfection - Proj. Bond	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25	WWTF Permit Improvements - 2010 Bond	\$16,346	\$0	\$0	\$0	\$0	\$0	\$0
26	WWTF Rehabilitation	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
27	Valmont Butte	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	Biosolids Processing & Dewatering	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0
29	WWTF Biosolids Digester	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30	WWTF Biosolids Digester - Proj. Bond	\$0	\$0	\$0	\$0	\$0	\$0	\$0
31	WWTF Cogeneration	\$150,000	\$0	\$0	\$0	\$0	\$0	\$184,481
32	WWTF Digester Complex	\$0	\$0	\$0	\$0	\$0	\$200,000	\$2,000,000
33	September 2013 Flood Disaster Recovery	\$1,060,430	\$0	\$0	\$0	\$0	\$0	\$0
34	WWTF Digester Cleaning	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35	Bond Issuance Costs	\$0	\$125,000	\$0	\$0	\$0	\$0	\$125,000
36	Subtotal - Wastewater Treatment Plant	\$2,607,114	\$2,705,176	\$470,000	\$1,933,411	\$1,451,915	\$2,429,992	\$21,718,672
37								
38	Marshall Landfill							
39	Marshall Landfill	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0
40	Subtotal - Marshall Landfill	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0
41								
42	Wastewater System Monitoring and Metering							
43	Yards Master Plan Implementation	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0
44	Automated Meter Reading	\$0	\$0	\$0	\$0	\$0	\$0	\$0
45	Utility Billing Computer System	\$0	\$50,000	\$0	\$0	\$0	\$0	\$65,000
46	Subtotal - Monitoring and Metering	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$65,000
47								
48	Collection and Conveyance System Rehabilitation							
49	Collection System Monitoring	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0
50	Condition Assessment Program		\$780,000	\$811,200	\$843,648	\$877,394	\$912,490	\$948,989
51	Sanitary Sewer Rehabilitation	\$764,903	\$780,000	\$811,200	\$843,648	\$1,169,859	\$1,216,653	\$1,265,319
52	Sanitary Sewer Rehabilitation - Bond	\$0	\$10,000,000	\$0	\$0	\$0	\$0	\$0
53	Sanitary Sewer Manhole Rehabilitation	\$155,186	\$208,000	\$216,320	\$224,973	\$233,972	\$243,331	\$253,064
54	IBM Pump Station	\$814,799	\$500,000	\$0	\$0	\$0	\$0	\$0
55	Tier 1 Boulder Creek 2 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
56	Tier 1 Goose Creek 1/1A Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
57	Tier 1 Goose Creek 3 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
58	Tier 1 Goose Creek 5 Master Plan Project	\$0	\$0	\$0	\$0	\$25,000	\$647,590	\$1,346,988
59	Tier 2 Boulder Creek 1 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60	Tier 2 Boulder Creek 3 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
61	Tier 2 Boulder Creek 4 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62	Tier 2 Goose Creek 4 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
63	Tier 2 Gunbarrel 1 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
64	Tier 2 Gunbarrel 2 Master Plan Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0
65	Tier 2 South Boulder Creek 1 Master Plan Pro	\$0	\$0	\$0	\$0	\$0	\$0	\$0
66	Subtotal - Sewer System Rehabilitation	\$1,834,888	\$12,268,000	\$1,838,720	\$1,912,269	\$2,306,224	\$3,020,063	\$3,814,360
67								
68	Wastewater System Expansion							
69	Annexation Related WW System Expansion	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70	Subtotal - Wastewater System Expansion	\$0	\$0	\$0	\$0	\$0	\$0	\$0
71								
72	TOTAL CAPITAL USES OF FUNDS	\$4,492,002	\$15,023,176	\$2,408,720	\$3,845,680	\$3,758,139	\$5,450,055	\$25,598,032

**CITY OF BOULDER
2015 FUND FINANCIAL**

STORMWATER/FLOOD MANAGEMENT UTILITY

	2013 Actual	2014 Revised	2015 Projected	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Beginning Fund Balance	\$ 15,373,639	\$ 16,195,856	\$ 6,652,416	\$ 12,417,160	\$ 9,336,862	\$ 7,398,064	\$ 6,142,066	\$ 6,195,492
Sources of Funds								
Operating-								
Service Charge Fees	\$ 5,505,792	\$ 5,157,008	\$ 5,322,342	\$ 9,119,407	\$ 9,503,152	\$ 9,903,045	\$ 10,319,765	\$ 10,754,020
Projected Rate Increases	-	154,710	3,778,863	364,776	380,126	396,122	412,791	430,161
TOTAL OPERATING SOURCES OF FUNDS	5,505,792	5,311,719	9,101,205	9,484,184	9,883,278	10,299,166	10,732,555	11,184,181
Non-Operating--								
Plant Investment Fees	591,301	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Urban Drainage District Funds	-	2,003,164	267,500	170,000	500,000	412,000	424,360	437,091
State and Federal Grants	-	2,900,000	4,500,000	-	-	-	-	-
Interest on Investments	102,124	404,896	99,786	248,343	233,422	221,942	184,262	185,865
Intergovernmental Transfers (KICP Program)	120,406	140,000	144,200	148,526	152,982	157,571	162,298	167,167
Rent and other miscellaneous revenue	46,939	40,000	40,000	40,000	5,000	5,000	5,000	5,000
Miscellaneous nonrecurring revenue	-	-	-	-	-	-	-	-
Sale of Real Estate - Yards Masterplan	-	-	357,375	-	-	-	-	-
Projected Bonds	-	-	16,000,000	-	-	10,150,000	-	-
TOTAL NON-OPERATING SOURCES OF FUNDS	\$860,770	\$5,888,060	\$21,808,861	\$1,006,869	\$1,291,403	\$11,346,513	\$1,175,920	\$1,195,123
Total Sources of Funds	\$ 6,366,562	\$ 11,199,779	\$ 30,910,066	\$10,491,053	\$ 11,174,681	\$ 21,645,679	\$ 11,908,476	\$ 12,379,304
Uses of Funds								
Operating-								
Administration	\$ 410,081	\$ 400,927	\$ 433,923	\$ 446,941	\$ 460,349	\$ 474,159	\$ 488,384	\$ 503,036
Planning and Project Management	1,088,823	1,082,866	1,245,255	1,282,613	1,321,091	1,360,724	1,401,545	1,443,592
Stormwater Contract Management	44,444	49,442	49,442	50,925	52,453	54,027	55,647	57,317
Stormwater Quality and Education	840,989	953,534	943,886	972,203	1,001,369	1,031,410	1,062,352	1,094,223
System Maintenance	830,109	817,412	838,474	863,628	889,537	916,223	943,710	972,021
Sick/Vacation Accrual	(13,064)	50,000	50,000	51,500	53,045	54,636	56,275	57,964
Debt--								
Goose Creek 1998 Revenue Bond	-	-	-	-	-	-	-	-
Refunding of the Goose Creek 1998 Revenue Bond	391,542	384,042	387,038	381,675	386,138	380,175	-	-
Projected Bond - South Boulder Creek	-	-	-	-	-	950,000	950,000	950,000
Projected Bond - Wonderland Creek	-	-	1,520,000	1,520,000	1,520,000	1,520,000	1,520,000	1,520,000
Projected Bond - Boulder Transit Village	-	-	-	-	-	-	-	-
Cost Allocation	211,245	219,451	219,451	230,424	241,945	254,042	266,744	280,081
Planning & Development Services	124,768	128,511	132,367	136,338	140,428	144,641	148,980	153,450
General Fund - Utilities Attorney	10,631	17,629	19,986	20,785	21,617	22,482	23,381	24,082
Capital	\$1,591,713	9,821,500	\$3,280,500	7,665,820	7,078,553	\$5,643,795	4,994,306	\$5,670,922
Projected Bond - South Boulder Creek	-	-	-	-	-	10,000,000	-	\$0
Projected Bond - Wonderland Creek	-	-	\$16,000,000	-	-	-	-	-
Projected Bond Issuance Costs	-	\$0	\$75,000	-	-	150,000	-	-
Encumbrances, Carryover and Adjustments to Base	-	6,867,904	-	-	-	-	-	-
Total Uses of Funds	\$ 5,531,281	\$ 20,793,218	\$ 25,195,322	\$ 13,622,851	\$ 13,166,524	\$ 22,956,313	\$ 11,911,326	\$ 12,726,687

**CITY OF BOULDER
2015 FUND FINANCIAL**

STORMWATER/FLOOD MANAGEMENT UTILITY

	2013 Actual	2014 Revised	2015 Projected	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
Sick and Vacation Accrual Adjustment	\$ (13,064)	\$ 50,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275	\$ 57,964
Ending Fund Balance Before Reserves	\$ 16,195,856	\$ 6,652,416	\$ 12,417,160	\$ 9,336,862	\$ 7,398,064	\$ 6,142,066	\$ 6,195,492	\$ 5,906,072
Reserves								
Bond Reserves	\$ 324,984	\$ 324,984	\$ 1,844,984	\$ 1,844,984	\$ 2,282,019	\$ 2,907,035	\$ 2,907,035	\$ 2,907,035
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
Sick/Vacation/Bonus Reserve	59,494	61,279	63,117	65,011	66,961	68,970	71,039	73,170
Pay Period 27 Reserve	21,480	34,480	47,480	60,480	73,480	86,480	99,480	113,169
Operating Reserve	887,007	929,943	983,196	1,013,839	1,045,458	1,078,086	1,111,755	1,146,441
Capital Reserve	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Total Reserves	\$ 2,542,964	\$ 2,600,686	\$ 4,188,777	\$ 4,234,314	\$ 4,717,918	\$ 5,390,571	\$ 5,439,309	\$ 5,489,815
Ending Fund Balance After Reserves	\$13,652,892	\$4,051,731	\$8,228,383	\$5,102,548	\$2,680,146	\$751,496	\$756,183	\$416,257

Note:

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

	A	B	G	H	I	J	K	L	M
1	6-Jun-14								
2			CITY OF BOULDER						
3			2015-2020 CAPITAL IMPROVEMENT PROGRAM						
4			STORMWATER AND FLOOD MANAGEMENT UTILITY FUND						
5									
6	Assumed Inflation Rate	4.00%	2014	2015	2016	2017	2018	2019	2020
7	PROJECT NAME		PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED
8									
9	Major Drainageways								
10	Elmer's Twomile Creek	431332	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Goose Creek	431710	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	South Boulder Creek	431202	\$274,539	\$250,000	\$750,000	\$750,000	\$0	\$0	\$0
13	South Boulder Creek - Bond Proceeds		\$0	\$0	\$0	\$0	\$10,000,000	\$0	\$0
14	Bond Issuance Costs		\$0	\$0	\$0	\$0	\$150,000	\$0	\$0
15	Skunk Canyon Creek		\$0	\$0	\$0	\$100,000	\$500,000	\$0	\$0
16	Sunshine Creek		\$0	\$0	\$0	\$0	\$0	\$0	\$0
17	Twomile Canyon Creek		\$0	\$0	\$0	\$100,000	\$500,000	\$0	\$0
18	Bluebell Canyon Creek - King's Gulch		\$0	\$0	\$0	\$100,000	\$500,000	\$0	\$0
19	Viele Channel		\$0	\$0	\$0	\$0	\$0	\$0	\$0
20	Four Mile Canyon Creek	431729	\$0	\$0	\$0	\$0	\$500,000	\$1,250,000	\$1,250,000
21	Four Mile Canyon Creek - Upland to Violet	431729	\$0	\$0	\$500,000	\$500,000	\$500,000	\$250,000	\$0
22	Four Mile Canyon Creek - 19th to 22nd	431730	\$1,331,454	\$0	\$0	\$0	\$0	\$0	\$0
23	Bear Canyon Creek	431010	\$0	\$100,000	\$500,000	\$0	\$0	\$0	\$0
24	Gregory Canyon Creek	431702	\$0	\$100,000	\$500,000	\$0	\$0	\$0	\$0
25	Boulder Creek	431015	\$100,000	\$500,000	\$2,500,000	\$2,500,000	\$0	\$0	\$0
26	Boulder Slough	431016	\$788,164	\$0	\$0	\$0	\$0	\$0	\$0
27	Wonderland Creek	431003	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	Wonderland Creek - Foothills to 30th	431011	\$2,405,420	\$0	\$0	\$0	\$0	\$0	\$0
29	Wonderland Creek at 28th St.	431012	\$1,027,423	\$0	\$0	\$0	\$0	\$0	\$0
30	Wonderland Creek - Bond Proceeds		\$0	\$16,000,000	\$0	\$0	\$0	\$0	\$0
31	Bond Issuance Costs		\$0	\$75,000	\$0	\$0	\$0	\$0	\$0
32	Preflood Acquisition	431622	\$2,856,395	\$500,000	\$500,000	\$550,000	\$600,000	\$632,660	\$657,966
33	Greenways Program Transfer	431630	\$613,596	\$97,500	\$97,500	\$97,500	\$97,500	\$97,500	\$128,303
34	Subtotal - Major Drainageway Improvements		\$9,396,991	\$17,622,500	\$5,347,500	\$4,697,500	\$13,347,500	\$2,230,160	\$2,036,269
35									
36	Miscellaneous								
37	Yards Master Plan Implementation	431039	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0
38	CU Bike/Ped Bridge Replacement I	431054	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0
39	September 2013 Flood Disaster Recovery	431913	\$5,549,889						
40	Utility Billing Computer System	431453	\$0	\$50,000	\$0	\$0	\$0	\$0	\$65,000
41	Subtotal - Miscellaneous Drainage Improvements		\$5,799,889	\$50,000	\$0	\$0	\$0	\$0	\$65,000
42									
43	Stormwater Management								
44	Upper Goose Creek	431459	\$0	\$175,000	\$750,000	\$750,000	\$750,000	\$1,000,000	\$1,165,547
45	Local Drainage Improvements			\$780,000	\$811,200	\$843,648	\$877,394	\$912,490	\$948,989
46	Stormwater Quality Improvements	431775	\$119,996	\$156,000	\$162,240	\$168,730	\$175,479	\$182,498	\$189,798
47	Storm Sewer Rehabilitation	431760	\$378,270	\$260,000	\$270,400	\$281,216	\$292,465	\$304,163	\$632,660
48	Transportation Coordination	431780	\$490,719	\$312,000	\$324,480	\$337,459	\$350,958	\$364,996	\$632,660
49	Subtotal - Localized Drainage Improvements		\$988,985	\$1,683,000	\$2,318,320	\$2,381,053	\$2,446,295	\$2,764,147	\$3,569,653
50									
51	TOTAL CAPITAL USES OF FUNDS		\$16,185,865	\$19,355,500	\$7,665,820	\$7,078,553	\$15,793,795	\$4,994,306	\$5,670,922

ATTACHMENT C

CIP OVERVIEW OF THE 2015-2020 UTILITIES DIVISION CAPITAL IMPROVEMENT PROGRAM

Draft 06/06/14

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 is derived primarily from monthly utility fees.

Any revenue increases for 2015 will be reviewed by the Water Resources Advisory Board and considered by City Council. Approval of revenue increases that are different from what is listed above may impact the 2015-2020 CIP.

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), this is 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 (none anticipated at this time). These revenues are project specific and are highly variable depending on the external agency's funding situation and priorities. Currently, the following projects are anticipated to qualify for such revenues:

- Pre-Flood Acquisition
- Wonderland Creek Flood Mitigation
- Fourmile Canyon Creek Flood Mitigation
- South Boulder Creek Flood Mitigation

If the above mentioned funds are insufficient, projects may be funded by issuing revenue bonds with the debt service financed by general utility charges. For the years 2015-2020, it is anticipated that new bonds will be issued for the following projects:

Water:

1. Betasso Water Treatment Plant Improvements (\$12 million in 2016) to fund improvements to maintain compliance with federal Safe Drinking Water Act regulations
2. Southern Water Supply Pipeline II (Carter Lake Pipeline) (\$33.9 million in 2018)
3. Barker Dam Improvements (\$8 million in 2019) to fund repairs to the outlet works

Wastewater:

1. Sanitary Sewer Rehabilitation (\$10 million in 2015) to replace and rehabilitate sections of the reinforced concrete pipe (RCP) sewer
2. WWTF Improvements (\$18.5 million in 2020) to fund phosphorus treatment to meet Regulation 85 requirements

Stormwater and Flood Management:

1. Wonderland Creek Flood Mitigation project (\$16 million in 2015)
2. South Boulder Creek Flood Mitigation (\$10 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.

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	\$2,522,000
	Lakewood Pipeline	2021	\$2,066,000
	<i>Betasso WTP Imp. (2016)</i>	<i>2036</i>	<i>\$1,140,000</i>
	<i>Carter Lake Pipeline (2018)</i>	<i>2038</i>	<i>\$3,224,000</i>
	<i>Barker Dam Improvements (2019)</i>	<i>2039</i>	<i>\$763,000</i>
Wastewater	<i>Sanitary Sewer Rehabilitation (2015)</i>	<i>2035</i>	<i>950,000</i>
	WWTF Liquid and Solid Stream Improvements	2025	\$3,500,000
	WWTF Headworks/Digester/UV Improvements	2030	\$674,000
	<i>WWTP Improvements – Reg 85 (2020)</i>	2040	\$1,757,500
Storm/Flood	Multiple projects including Goose Creek Flood Mitigation	2018	\$385,000
	<i>Wonderland Creek Flood Mitigation (2015)</i>	2035	<i>\$1,520,000</i>
	<i>South Boulder Creek Flood Mitigation (2017)</i>	<i>2037</i>	<i>950,000</i>

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 utility continues to maintain a high credit rating, most recently Aa1 from Moody's and AAA from Standard and Poor's. This is due to sound financial practices, one of the most important of which is maintaining sufficient reserves.

The 2015-2020 capital improvement program (CIP) was developed using the following proposed 2014 revenue increases from monthly utility fees. These rate increases should generate sufficient revenue to fund a reasonable amount of mitigation projects in response to the September 2013 flood disaster as discussed below. Additional city staff needed to implement the proposed additional capital improvement project work will be needed and funding for these positions is anticipated in the proposed rate increases.

- Water – 5%
- Wastewater – 25%
- Stormwater/ Flood Management – 71%

Anticipated FEMA reimbursement as discussed below has been considered in formulating the proposed rate increases.

ACCOMPLISHMENTS AND HIGHLIGHTS

September 2013 Flood Disaster

The 2013 flood disaster significantly affected the city's utilities system and the city's finances. City utility funds have been used to fund recovery efforts and the following is a summary of current and anticipated expenses:

Water Utility	\$ 1.5 million
Wastewater Utility	\$ 1.5 million
Stormwater and Flood Management Utility	\$ 6.0 million

It is anticipated that 75% of eligible costs will eventually be reimbursed by FEMA. There is a possibility that an additional 12.5% of eligible costs may be reimbursed if the State of Colorado appropriates funds for this purpose. To be eligible for reimbursement the work must meet certain criteria established by FEMA and be completed within 18 months of the disaster declaration. Eligible costs are uncertain and are currently estimated to be 80-90 percent of actual costs. The timing of the reimbursement is unknown and may occur over a period of 1-3 years.

The flood disaster also highlighted certain vulnerabilities in the city's utility infrastructure. Although the water system infrastructure performed admirably and sustained minimal damage, the sanitary sewer, storm water and major drainageway systems were overwhelmed by rain of up

to 18 inches in a relatively short period of time and resulting runoff, groundwater infiltration and inflow to the city's open channel and pipe conveyance systems. Although the rain event is estimated to have a recurrence interval of 1000 years, the city's major drainageways only experienced flood flows characterized by a recurrence interval of 25-50 years.

City staff is in the process of identifying and quantifying the disaster impacts and has developed a proposed CIP budget that contemplates additional work to make the infrastructure more robust and mitigate future rainfall/runoff event impacts.

New projects have been identified or funding increased for mitigation projects including:

Wastewater Utility:

- September 2013 Flood Disaster Recovery
- Collection System Monitoring
- Condition Assessment Program
- Sanitary Sewer Rehabilitation
- Sanitary Sewer Manhole Rehabilitation
- IBM Pump Station
- Digester Complex Improvements

Stormwater and Flood Management Utility:

- September 2013 Flood Disaster Recovery
- South Boulder Creek Flood Mitigation
- Skunk Creek Flood Mitigation
- Twomile Canyon Creek Flood Mitigation
- Bluebell Canyon Creek – King's Gulch Flood Mitigation
- Fourmile Canyon Creek Flood Mitigation
- Bear Canyon Creek Flood Mitigation
- Gregory Canyon Creek Flood Mitigation
- Boulder Creek Flood Mitigation
- Wonderland Creek Flood Mitigation
- Local Drainage Improvements
- Storm Sewer Rehabilitation
- Transportation Coordination

Water Utility

In addition to the September 2013 flood disaster there have been several developments over the past year that should be considered in formulating the Water Utility CIP. These developments are discussed and addressed below under the Highlights of 2015-2020 Projects section.

Projects Completed in 2014

1. Phase 1 of the Sunshine Pipeline inspection and replacement
2. Kossler Reservoir Concrete Facing Rehabilitation
3. Barker Gravity Pipeline Repairs – ongoing repairs in order of priority and availability
4. Barker Dam Outlet Gate Test – ongoing plan to test / inspect gates as reservoir level allows
5. Green Lake No. 2 Assessment and Rehabilitation Study
6. Albion Dam Assessment and Rehabilitation Alternatives Study
7. Replacement of approximately 20,000 feet of water main
8. Mixing improvements at Devil’s Thumb storage tank
9. Gunbarrel Tank painting and structural steel rehabilitation
10. Boulder Reservoir Water Treatment Facility Post Filter Mixing Improvements
11. Betasso Residuals Study and Filter Analysis
12. Betasso and Boulder Reservoir treated water effluent meter replacements

Projects Expected for Completion in 2015

1. Barker Dam Outlet Investigation for Gate No.10 – due to leakage and concerns with the age of this 1905 gate, a bulkhead design and installation plan will be completed with the assistance of a consulting engineer specializing in high pressure bulkheads
2. Silver Lake Dam Outlet Inspection – as part of dam safety requirements, the outlet system will be fully inspected and the condition assessment will be documented
3. Goose Lake Dam Outlet Inspection - as part of dam safety requirements, the outlet system will be fully inspected and the condition assessment will be documented
4. Silver Lake Hydroelectric Rehabilitation - the bypass valve is scheduled for rehabilitation due to operational damage
5. Betasso capital improvement project design
6. Replacement of approximately 20,000 feet of water main

Projects Starting in 2015, but Not Completed

1. Lakewood Pipeline Internal Inspection – assessment of corrosion potential and general condition of steel pipe, welds and interior lining
2. Watershed Improvements – Various aging valves in the upper watershed will be replaced with more modern systems
3. Barker Gravity Pipeline Maintenance Repairs – ongoing repairs to the gravity system will continue on a priority and/or emergency basis
4. 18” Transmission line replacement from the mouth of Boulder Canyon to Chautauqua Reservoir
5. Kohler Storage Tank roof replacement
6. Phase 2 of the Sunshine Pipeline inspection and replacement
7. Devil’s Thumb Storage Tank site, security and water quality improvements

Highlights of 2015-2020 Projects

1. Annual funding for waterline replacement of \$3,000,000 (2014 dollars) is proposed in order to provide for the replacement of additional waterlines located in residential streets scheduled to be reconstructed by the city's Transportation Division as part of the Capital Investment Bond Program and associated transportation tax. Completing water main replacement just ahead of street resurfacing results in significant savings since pavement restoration costs can be eliminated. Coordination also reduces the risk that the useful life of a newly reconstructed street will be impacted by a main break.
2. It is recommended that the city continue its annual maintenance program of the Barker Gravity Line by prioritizing pipeline repair projects based on the most critical needs, providing enough earthen cover to protect the pipeline, and anchoring the pipeline in areas prone to landslides. Replacement or lining of pipe sections are options that may be used in different parts of the pipeline.
3. It is recommended that capital funding be allocated in the 2015-2016 time period to address issues related to aging equipment and underperforming treatment processes at the Betasso Water Treatment Facility.
4. Funding for the final design of the Carter Lake Pipeline is identified in 2017 and construction is identified in 2018. Project costs were updated with a new construction estimate provided by Northern in 2014 and forecasted costs have increased. 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 recent disaster event revealed that the pipeline could also mitigate the potential for future problems in delivering water from the Boulder Reservoir WTP during future disaster events. The pipeline would potentially provide an opportunity to develop a new hydroelectric facility and funding for construction of this facility is allocated in 2020.
5. The Barker Dam outlet facilities are over 100-years old and in need of significant rehabilitation. As a result of the successful testing and operation of the existing outlet gates as described above, funding has been delayed by 1 year for final design (now 2018) and construction (now 2019) of the rehabilitation project. The outlet facilities would also provide an opportunity to develop a new hydroelectric facility and funding for construction of this facility is allocated in 2020.
6. The 2014-2015 assessment of rehabilitation options for Green Lake No. 2 and Albion dams will confirm the path forward on re-establishing operational levels of storage on these dams. Construction funding of these projects is not shown in the 2015-2020 CIP at this time because of the unknown results of the assessment and cost/benefit of associated improvements.

7. Funding for treated water transmission infrastructure includes both assessment and replacement of critical pressure zone 3 pipes. During the summer of 2013 several transmission mains experienced failures that were repaired and revealed the need to replace certain pipe segments sooner than anticipated.

Wastewater Utility

Impacts of the September 2013 flood disaster are the primary drivers of changes being considered in the Wastewater Utility CIP.

Projects Anticipated for Completion in 2014

1. IBM Lift Station Design Improvements
2. Nitrogen Upgrades Design Improvements
3. Wastewater collection system condition assessment and debris removal
4. Wastewater Collection System Master Plan (WWCSMP) Update - to integrate flood inundation data from the 2013 flood event.
5. Wastewater Interceptor Evaluation
6. Inflow & Infiltration (I&I) Evaluation

Projects Expected for Completion in 2015

1. IBM Lift Station Construction
2. WWTF Process Automation System (PAS) recommendations implementation

Projects Starting in 2015, but Not Completed

1. Nitrogen Upgrades Construction Improvements. The city received a new discharge permit for the 75th Street wastewater treatment facility (WWTF) with an effective date of May 1, 2011. The City has begun a Nitrogen Upgrades design project that will be completed this year for submittal to CDPHE. This project will include improvements to meet new permit regulations for new total inorganic nitrogen (TIN) and daily maximum ammonia limits. This project's construction cost is estimated at \$4,000,000 and will be completed in 2016.
2. I&I Evaluation project recommendations. Upon completion of the 2014 I&I Evaluation, Utilities staff will begin rehabilitation of the wastewater collection system to specifically address the inflow component of the I&I. These repairs will focus on single point large volume contributions to the system like illicit drain or pump connections.

Highlights of 2015-2020 Projects

1. Staff recommends a more robust wastewater collection system condition assessment program and has including preliminary funding in the 2015-2020 CIP. The condition assessment may reveal additional rehabilitation needs that are not fully anticipated in this preliminary budget.

2. Increased funding for the annual Sanitary Sewer Rehabilitation project is being considered at a base rate of \$750,000 per year in 2014 dollars escalating at 4% annually. Increased funding for Sanitary Sewer Manhole Rehabilitation project is also being considered.
3. New CDPHE regulations concerning nutrient criteria, specifically Regulation 85 and Regulation 31, were adopted by the Colorado Department of Public Health and Environment (CDPHE) in March 2012. The criteria will pose serious treatment challenges for the WWTF and will have significant financial impacts. City staff has estimated approximately \$18.5 million of funding in 2020 to address the phosphorus treatment improvements required to address Regulation 85. Regulation 31 contains much more stringent provisions and funding for this regulation is identified in the 20-year CIP with \$11 million in 2029.
4. The Process Automation System (PAS) Strategic Plan, which was completed in 2013, included approximately \$6,000,000 in instrumentation and controls (I&C) recommendations to be completed at the WWTF. Funding for these improvements is estimated at \$600,000 per year (escalated at 4% annually) for the next 10 years.
5. Additional funding for construction of overflow improvements at the IBM lift station necessary to meet the CDPHE permit regulations will be completed in 2015.
6. A system-wide inflow and infiltration (I&I) study of the wastewater collection system will be completed in 2014. The purpose of this evaluation is to quantify the rainfall induced I&I component entering the wastewater collection system. This I&I study was scheduled this year to take advantage of historically high groundwater conditions. Because of the saturated soil conditions, a give rainfall event will likely result in a more significant I&I system response. The data collected from this evaluation will be used to advise system repairs to minimize I&I component entering the collection system during rainfall events.
7. Wastewater Interceptor Replacement/Rehabilitation - Bond Project. Utilities staff has identified the need for a \$10,000,000 bond in the 2015-2020 CIP to fund improvements to the City's largest sanitary sewer interceptor. In 2014, City staff hired Redzone Robotics to perform a condition assessment of 31,000 feet of the interceptor. Initial data received from the contractor indicate that sections of the interceptor have experienced significant internal corrosion and that the sewer is at risk of failure and potential collapse. Utilities staff will begin an evaluation in 2014 to identify the project's magnitude and schedule.
8. Digester Complex Improvements. The secondary digester cover has failed on numerous occasions. This failure occurs when moisture gets inside the roof and causes an imbalance in the roof structure, and the cover tips rendering it inoperable. When this occurs, the facility must be taken off-line, emptied, cleaned and repaired. Utilities staff

has identified a project to replace the secondary digester cover in the 2015-2020 CIP. The estimated construction cost is \$2,000,000, with \$200,000 identified for the design in 2019.

9. A comprehensive list of WWTF rehabilitation projects has been identified from the Wastewater Utility Fund Asset Management tool, and included in the 20-year CIP based on staff input, engineering studies and the asset management database. For the current 6-year CIP, funding for the rehabilitation projects has been allocated to various WWTF components as shown in the detailed CIP list.

Stormwater and Flood Management Utility

Based on analysis of the September 2013 event, the majority of the disaster impacts were related to the event exceeding the capacity of existing stormwater infrastructure. Similar to the Wastewater Utility, the impacts of the September 2013 flood disaster are the primary drivers of changes being considered in the Stormwater and Flood Management Utility CIP. More information will be made available in the near future and staff plans to refine these preliminary recommendations based on this information during this budget process.

Besides the significant direct flood recovery costs that have been and will need to be absorbed, significant additional mitigation project work has been identified as discussed and addressed below under the Highlights of 2015-2020 Projects section. Mitigation of flood hazards along major drainageways has been the major thrust of the city's Stormwater and Flood Management utility for the last three decades. Boulder has by far the largest number of flood insurance policies (required on all federally backed mortgages) and largest insured value. City of Boulder residents and businesses pay nearly \$3M in total annual flood insurance premiums. Investment in flood mitigation serves to reduce the associated risks and costs.

Projects Completed or Anticipated for Completion in 2014

1. A flood mitigation planning study for Boulder Creek, Gregory Creek and Bear Canyon Creek is currently being initiated in conjunction with the Urban Drainage and Flood Control District. This plan will identify feasible flood improvement projects along these drainageways.
2. It is anticipated that the following mapping studies will be completed in 2014: Skunk Creek, Bluebell Creek and King's Gulch, Boulder Slough and the Bear Canyon Creek/Harrison Avenue levee.
3. The South Boulder Creek Flood Mitigation Plan is anticipated to be completed in 2014.
4. Utilities will complete a brief update to the 2007 Stormwater Master Plan (SMP) to integrate flood inundation data from the 2013 flood event.

Projects Expected for Completion in 2015

1. Fourmile Canyon Creek at 19th Street is in preliminary design but was put on hold

following the September 2013 flood event. It is anticipated that development of this project will continue in late 2014 with a CEAP completed in for the upstream reach in 2015.

2. Flood mapping studies for Upper Goose and Twomile Canyon Creeks are anticipated to be completed in 2015.

Projects Starting in 2015, but Not Completed

1. Utilities staff will begin the design of stormwater drainage improvements along Pearl Street between 17th Street and 20th Street to help mitigate flooding that occurs regularly in this area.
2. Utilities staff will begin the design of stormwater drainage improvements in the Upper Goose Creek drainage area in anticipation of the Upper Goose Creek Drainageway improvements identified in the 6-year CIP.
3. Construction of the Wonderland Creek Foothills to 30th Greenways Improvement Project is anticipated to begin in 2015.
4. Construction of the Wonderland Creek (28th Street) Diagonal to Winding Trail Greenways Improvement Project is anticipated to begin in 2015.
5. A flood mitigation plan was initiated in 2014 for Boulder Creek, Bear Canyon Creek and Gregory Canyon Creek and is anticipated to be completed 2015.

Highlights of 2015-2020 Projects

1. Flood mitigation improvements in the near term focus on Wonderland and Fourmile Canyon Creeks. The Wonderland Creek Foothills to 30th Street project is proposed to implement flood mitigation measures along Wonderland Creek from just upstream of Iris Avenue to Foothills Parkway and extend the multi-use trail from Foothills Parkway to the intersection of Iris Avenue and 30th Street. This project will include a bicycle and pedestrian underpass under the Burlington Northern Railroad. The Wonderland Creek at 28th Street project (Diagonal to Winding Trail) is the next upstream reach and will also include flood mitigation and path improvements, including bicycle and pedestrian underpasses at 28th Street and Kalmia Avenue. Funding for the construction of these improvements is proposed to be bonded in 2015, based on the current total estimated cost assuming the additional \$2.9 million received through the Transportation Improvement Program (TIP). Funds originally budgeted for this project have been reprioritized to address immediate flood recovery expenses.
2. Flood mitigation improvements along Fourmile Canyon Creek, 19th to 22nd Streets include 100 year flood mitigation at 19th Street, a multi-use path and an emergency access connection from 19th Street to Tamarack Avenue and a bicycle and pedestrian underpass at 19th Street. Funding is shown for additional improvements along Fourmile Canyon Creek between Upland and Violet in outlying years.
3. Funding is shown in 2015 for design of flood mitigation improvements along South Boulder Creek, Bear Canyon Creek, Gregory Creek and Boulder Creek and will be based on the recommendations of the mitigation planning studies. Funding is shown for

construction of these improvements starting in 2016, with bond money shown in 2018 for South Boulder Creek.

4. Funding for design of flood mitigation capital improvements along Skunk, Bluebell, King's Gulch, Twomile and Upper Goose Creeks is shown starting in 2017 and will be based on the updated mapping and a mitigation planning effort.
5. Funding for the design and construction of localized drainage improvements throughout the city. These improvements include storm water collection and conveyance facilities designed to convey the 2-year and 5-year storm events.

RELATIONSHIP TO GUIDING PRINCIPLES AND PRIORITIZATION

CIP Guiding Principles

Please refer to Attachment A for a list of the CIP Guiding Principles. The proposed Utilities Division CIP is consistent with these guiding principles in that 1) all projects (except those noted below) have been identified and prioritized through Council accepted master plans 2) capital improvements are designed to achieve community sustainability goals, 3) funds to operate and maintain the project or program have been identified, 4) adequate financial capacity and flexibility is available to respond to emerging, unanticipated needs (except for the WWTP permit issue identified below, 5) the maintenance and enhancement of city-wide business systems is captured elsewhere in the CIP, 6) projects sustain or improve maintenance of existing assets before investing in new assets, 7) project have been identified to meet legal mandates, maintain public safety and security, leverage external investments, promote community partnerships, reduce operating cost and improve efficiency, 8) capital projects have been screened through a cost/benefit analysis, 9) the CIP provides sufficient reserves to allow for a strong bond rating and the ability to address emergencies and natural disasters.

The projects identified in the 2015-2020 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 - 2010
- Wastewater Utility Master Plan - 2010

Stormwater/ Flood Management

- Stormwater Master Plan -2007
- Comprehensive Flood and Stormwater (CFS) Master Plan - 2004

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 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

Within current appropriations all projects proposed have sufficient funds for ongoing operations and maintenance, and 90% 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 2015-2020 CIP have been previously identified in associated master plans. However, several projects have been added based on information gleaned from the September 2013 flood disaster.

NEW PROJECTS

The following new projects have been identified in the 6-year CIP:

Water

- Devil's Thumb Storage Tank
- Sunshine Transmission Pipe
- Silver Lake Dam
- Goose Lake Dam
- Silver Lake Hydroelectric/PRV
- Water System Security/Quality Improvements

Wastewater Utility

- WWTP Nutrient Management Grant
- Condition Assessment Program

Stormwater and Flood Management Utility

- Skunk Creek Flood Mitigation
- Twomile Canyon Creek Flood Mitigation
- Bluebell Canyon Creek – King's Gulch Flood Mitigation
- Bear Canyon Creek Flood Mitigation
- Gregory Canyon Creek Flood Mitigation
- Boulder Creek Flood Mitigation
- Local Drainage Improvements

OPERATIONS AND MAINTENANCE IMPACTS

The majority of the utilities expenditures are for rehabilitating and improving the capital infrastructure either through the capital improvements program (cash financed) or through annual debt payments for revenue bonds that have been issued to fund capital improvements. 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.

It should be noted that the proposed CIP assumes funding for the replacement/rehabilitation of existing Utilities assets at a level of 75% of the predicted rate based on a recent asset

management analysis. Staff believes this will be adequate and sustainable since renewal and rehabilitation techniques and approaches can be accomplished at a lower cost than complete replacement.

The proposed CIP budget should be adequate to address essential projects within the six-year planning time frame. The delays in the projects listed above are not expected to have a significant negative effect on the service level of the city's utilities systems. Therefore there are no unfunded needs identified within the 6-year CIP.

However, to continue to meet capital project needs, including the recommended asset replacement goals of 60-75%, maintain compliance with Federal and State permit regulations and respond to the September 2013 flood disaster, utility rate increases will be needed as indicated in the following table. The preliminary 2015 increases are in bold.

	2014	2015	2016	2017
Water	4%	5%	8%	8%
Wastewater	5%	25%	5%	5%
Stormwater/Flood Management	3%	71%	4%	4%

The revenue increase represents the amount of additional revenue to be generated from the monthly utility charges. The actual rate increase (e.g. \$ per 1,000 gallons) may or may not be equal to the revenue increase depending on whether any changes in consumption or use are factored in when calculating the actual rates. For example, if there were a projected decrease in consumption, in order to generate 4% more revenue from last year's budget, monthly rates may need to increase greater than 4% to generate the needed revenue requirements.

Staff will continue to monitor and refine the asset replacement analysis and adjust the actual replacement rate within the 60-75 percent range as part of the annual budget process. Asset replacement at 75 percent of the predicted level has been used to formulate the 2015-2020 CIP budget.

Construction Cost Inflation

Construction cost inflation is tracked using the Engineering News Record (ENR) Cost Index for Denver and the Colorado Department of Transportation (CDOT) Colorado Construction Cost Index. The ENR index is a composite index based on costs for: 1) local portland cement, 2) local 2x4 lumber, 3) national structural steel, and 4) local union wages plus fringes for carpenters, bricklayers and iron workers. The CDOT index is a composite index based on costs for 1) unclassified excavation, 2) hot bituminous pavement 3) concrete pavement, 4) structural steel and 5) reinforcing steel. The ENR index is more reflective of equipment and building construction such as projects that occur at the treatment plants. The Colorado Construction Cost Index is more reflective of heavy civil construction such as roadway and major drainageway work. The following table presents information concerning these indices through December 2013:

Table 2 – Inflation Indexes	2013 Change	Running Average Yearly Change	
		5 years	10 years
ENR Construction Cost Index for Denver	0.48%	3.63%	3.98%
CDOT Colorado Construction Cost Index	-12.02%	-2.38%	7.33%

Based on this information it is recommended that capital improvement construction costs continue at a rate of 4% during the planning period. Using an average inflation calculation is in keeping with the principle of consistent rate increases over time rather than periodic large rate increases.

DEFERRED, ELIMINATED OR CHANGED PROJECTS

Funding for several projects have been changed in response to the impact of the September 2013 flood disaster. These changes are noted in red in **Attachment B** - Utilities Division CIP worksheets.

UNFUNDED PROJECTS AND EMERGING NEEDS

The following unfunded projects have been identified:

Water

- Albion Dam – Unfunded
- Wittemyer Ponds - Unfunded
- Boulder Reservoir Water Treatment Facility - Unfunded

Wastewater

- Tier 1 Goose Creek 1/1A Master Plan Project - Unfunded

Stormwater/ Flood Management

- South Boulder Creek Flood Mitigation Phase II

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 of revenue bonds and rate increases. The above mentioned projects are indicated in the 20-year CIP.

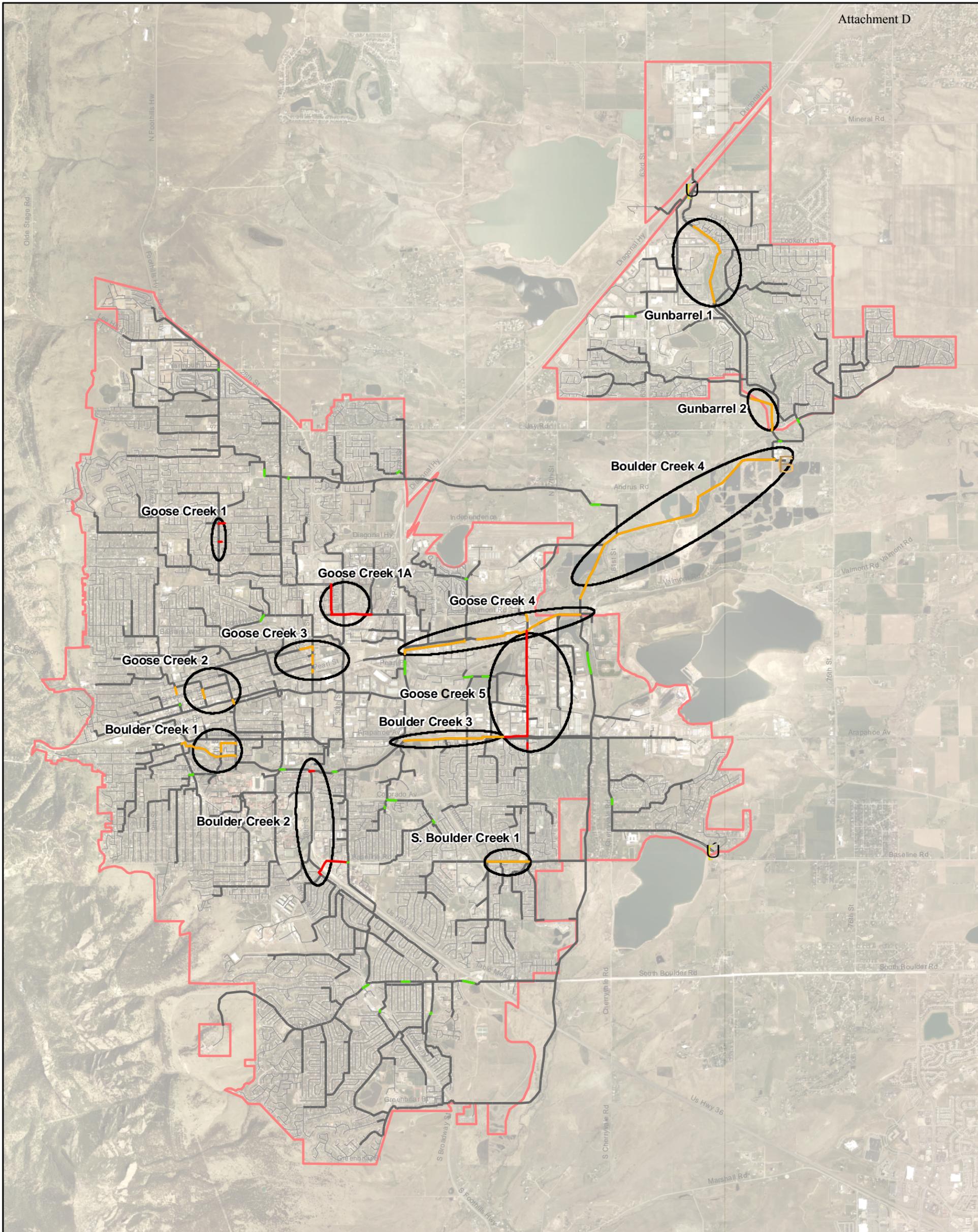
Emerging needs have been identified as part of the recent Water Utility Master Plan. During the development of this master plan, a technical analysis was performed regarding the city's water

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. The Betasso Water Treatment Facility 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 process, are the reasons that large capital funding is recommended in 2015-2016.

Regulatory changes are another source of uncertainty and create emerging needs. For example, as explained in the Accomplishments and 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 Water Treatment Facility capital improvements.

ADVISORY BOARD ACTION

The preliminary 2015 Utilities budget and 2015-2020 CIP was first presented to the WRAB on April 21, 2014 as a discussion item. WRAB hosted a public hearing and continued their discussion of the preliminary 2015 Utilities budget and 2015-2020 CIP on May 19, 2014. Based on public input, WRAB encouraged staff to consider additional funding and improvement work to the sanitary sewer system. It is anticipated WRAB will provide a final recommendation to Planning Board and City Council at the June 16, 2014 meeting.



Legend

1 inch equals 4,000 feet

Existing Sewers

- Local System (not analyzed)
- Analyzed System

Improvement Priority Tier

- 1
- 2
- 3
- WUSA Boudary

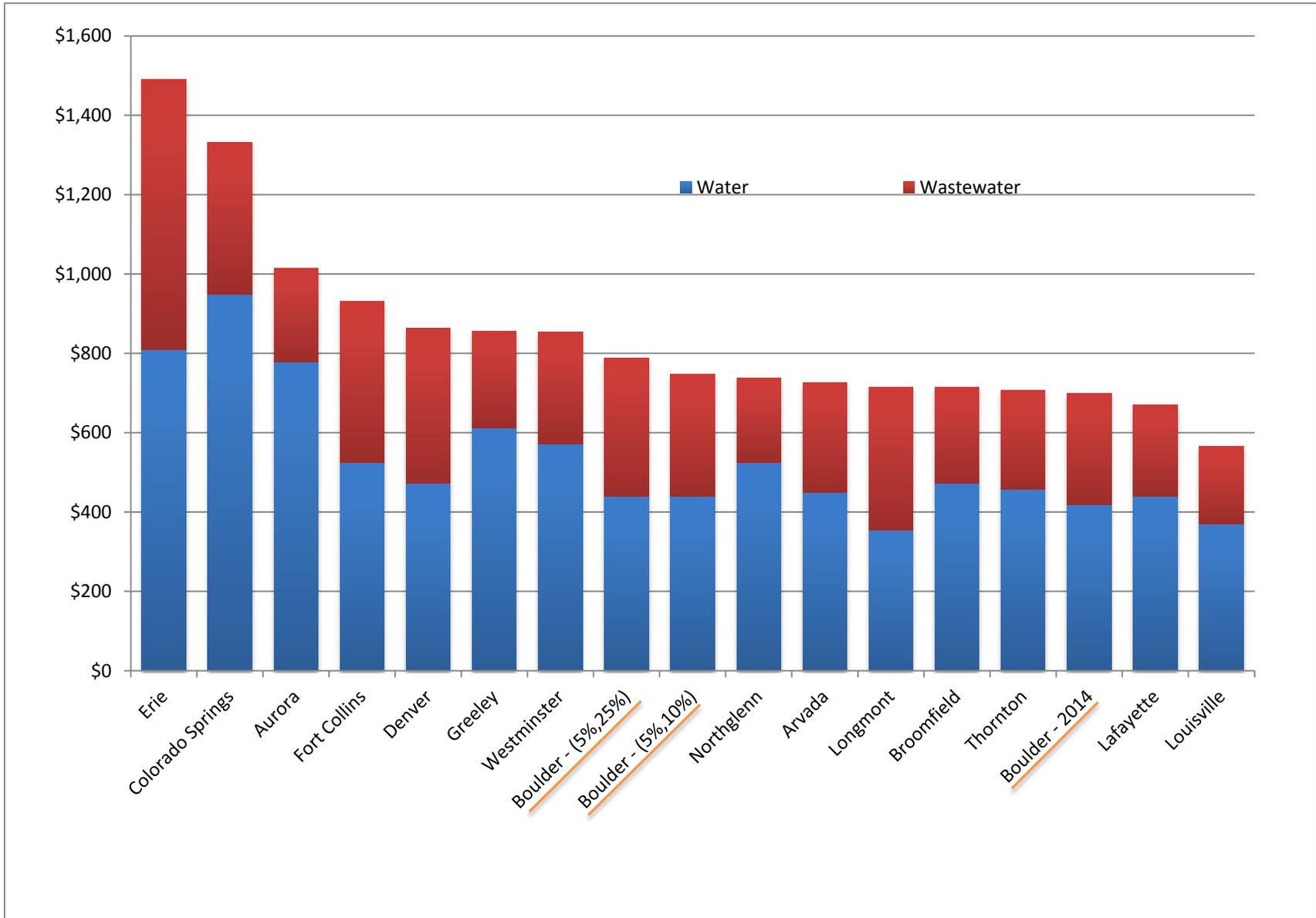
Major Features

- U Lift Station
- B WWTP

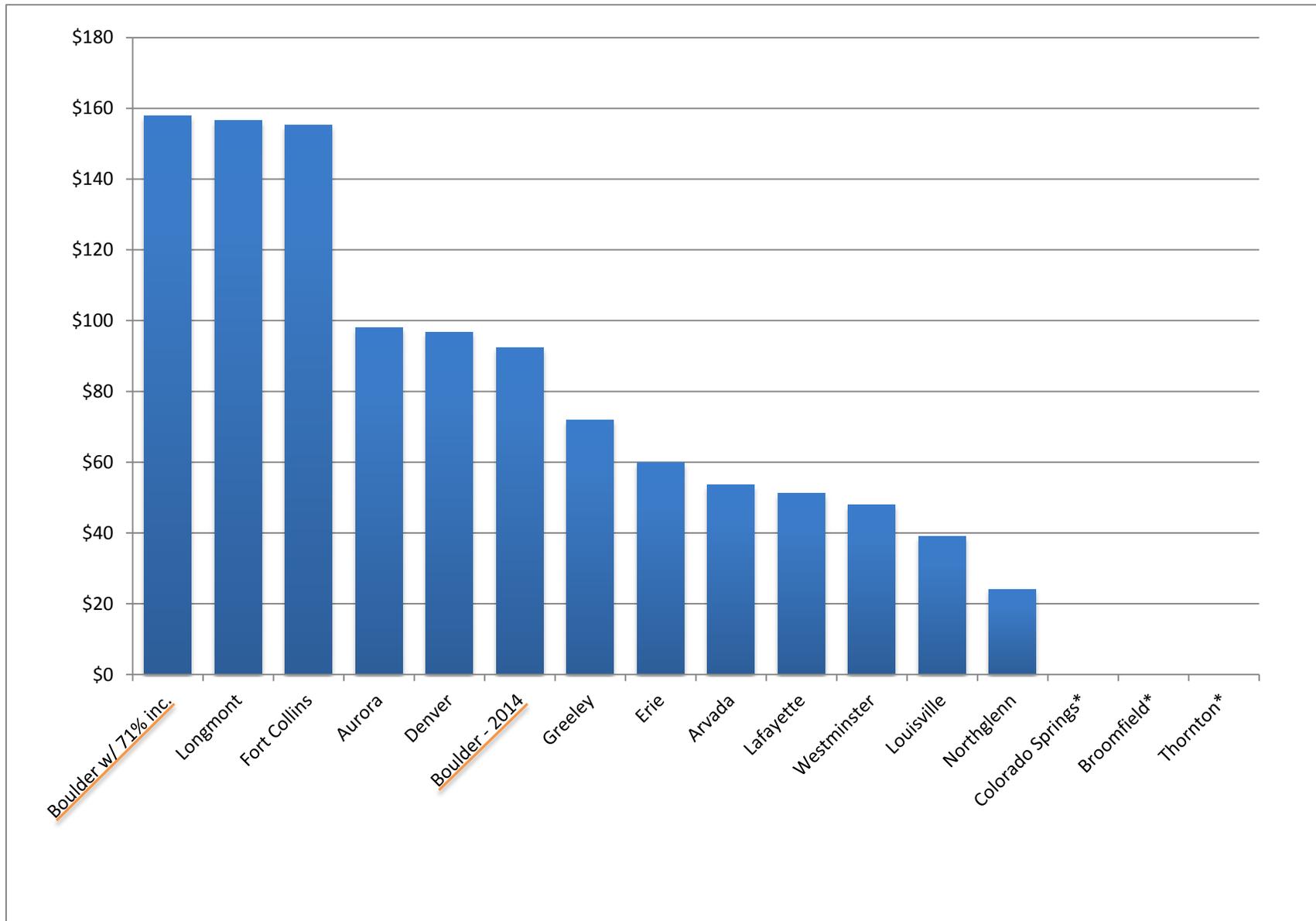


**Implementation Plan
with Recommended Improvements**

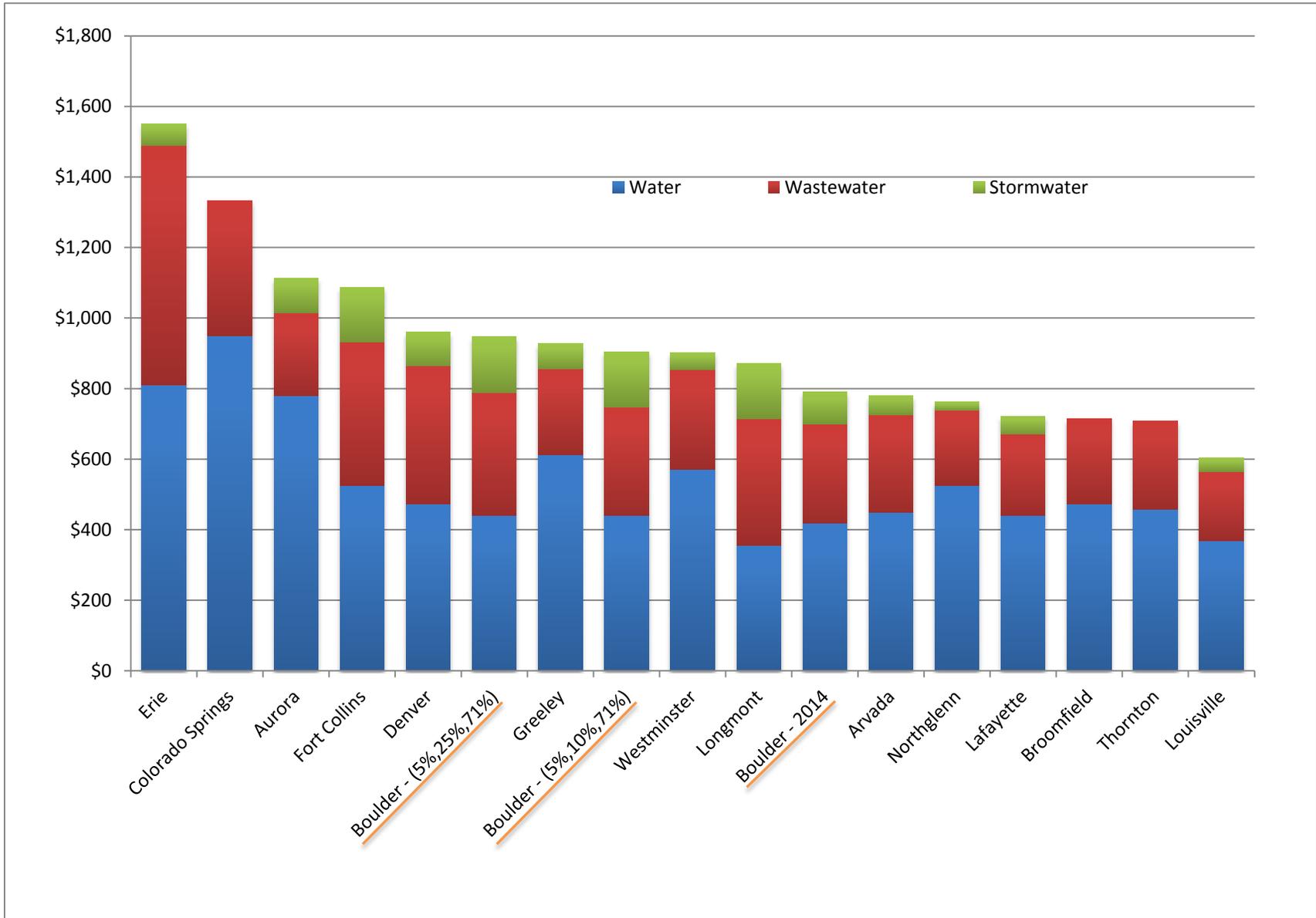
2014 Water and Wastewater Rates



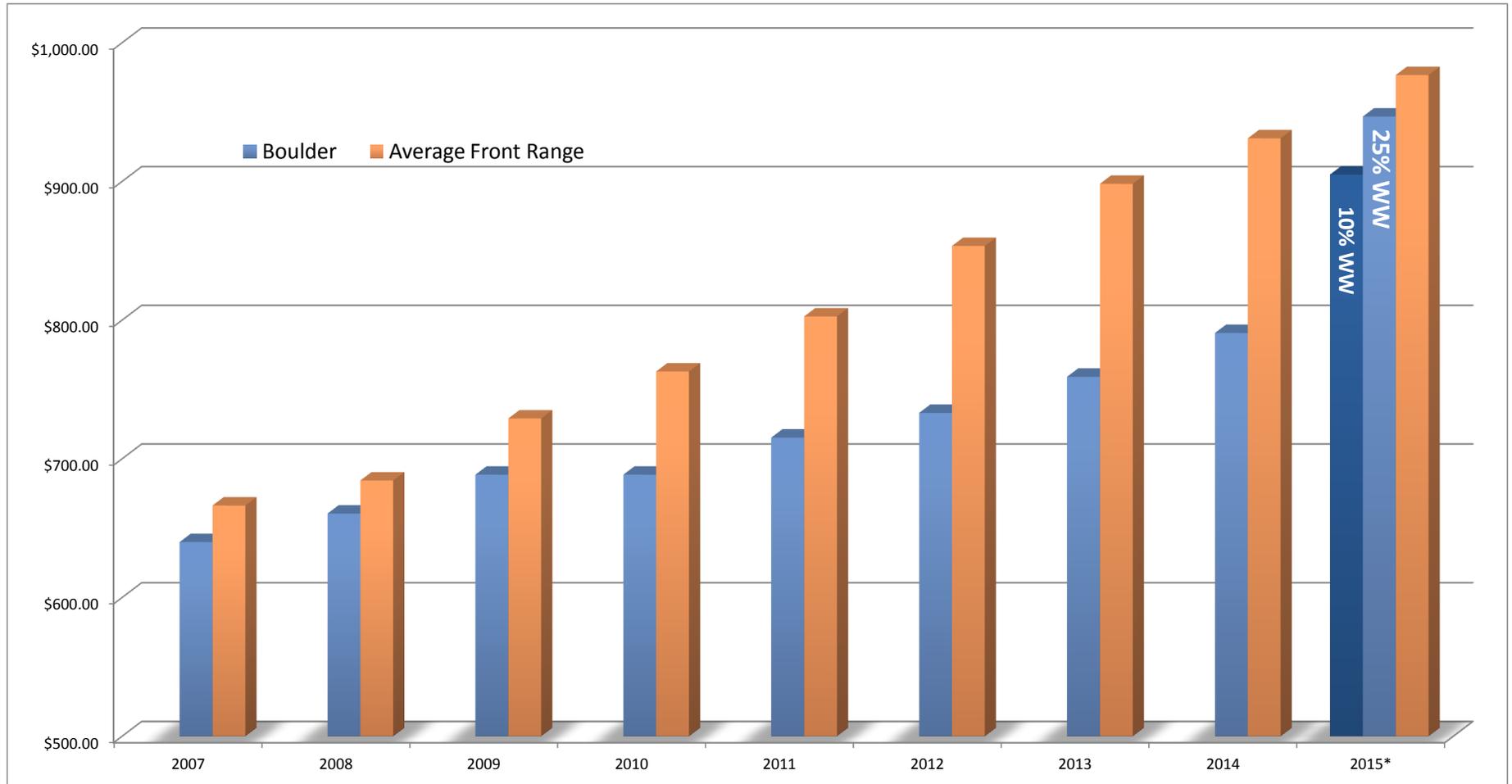
2014 Stormwater Rates



Combined 2014 Utility Rates



Annual Single Family Bill History



*2015 for Average Front Range assumes continuing the average 5% increase