

**CITY OF BOULDER**

**WATER RESOURCES ADVISORY BOARD  
AGENDA ITEM**

**MEETING DATE: April 21, 2014**

**AGENDA TITLE:** Information Item -- Preliminary Draft 2015 Utilities Budget (Water, Wastewater and Stormwater/ Flood Management) including the 6-year Capital Improvement Program (CIP).

**PRESENTERS:**

Jeff Arthur, Director of Public Works for Utilities  
Bob Harberg, Principal Engineer - Utilities  
Ken Baird, Utilities Financial Manager

**EXECUTIVE SUMMARY:**

As part of the city’s annual budget process, Utilities develops a six-year planning budget, this year for the time period of 2015 through 2020. The Water Resources Advisory Board (WRAB) role in this process is defined in the Boulder Revised Code: “. . . to review all environmental assessments and capital improvements conducted or proposed by the utilities division.” Utilities staff has formulated initial revenue and expenditure projections for each of the three utility funds through the year 2020. Within the budget process, City Council approves and appropriates funds only for the first year, 2015.

The September 2013 flood highlighted the vulnerability of the community and utility infrastructure to natural disasters, including flooding. 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. While the April WRAB meeting is generally used to provide a very high level overview of the CIP process, this year’s agenda item provides an opportunity for the WRAB to discuss a “preliminary draft” of the CIP. Input from WRAB will guide staff in preparation of a draft CIP for discussion by WRAB at the May meeting. WRAB will be asked to make a recommendation to City Council regarding the 2015-2020 CIP at its June meeting. The Planning Board will review the complete city CIP, including utilities, in August. City Council generally plans for two study sessions regarding the CIP in September, prior to adopting the 2015 budget.

This packet contains preliminary information concerning the 2015 Utilities Budget and the draft 2015-2020 Utilities CIP. The fund financials (**Attachment A**) have been updated to reflect actual revenues and expenditures for 2013, and the revised budget for 2014. These fund financials incorporate recommended changes to the CIP. There will be other, likely less significant, changes in the operating budget after the City’s budget office distributes budget guidelines on April 21 and these changes may also influence recommended rates.

**Fiscal Impacts:** Based on preliminary feedback from WRAB and the community, staff has been evaluating rate scenarios that would support immediate flood recovery needs and increase investment in resilient utilities infrastructure. Maintaining the inflationary increases proposed last year (4% water, 5% wastewater, 3% stormwater/flood) would result in a net reduction or deferral of investment due to the need to fund immediate flood recovery expenses. Immediate implementation of a “vision plan” level of investment to substantially eliminate flood risk is not considered to be financially feasible. The following percentage increases in additional revenue from the monthly utility fees are currently being considered to balance community desire for additional investment with the need to maintain affordability for rate payers:

Water	5%
Wastewater	7%
Stormwater/ Flood Management	71%

**Public Feedback:** A public hearing and recommendation is scheduled for the June WRAB meetings. At the June meeting, staff will request that the WRAB provide a final recommendation on the proposed 2015-2020 CIP to City Council and associated rates changes. Staff is recommending that the May CIP item, which is normally scheduled as an information item, also be scheduled as a public hearing to better accommodate feedback.

**BACKGROUND and ANALYSIS:**

The Utilities Division’s primary focus is to provide quality water services, as desired by the community, in a manner which emphasizes efficient management of fiscal and natural resources, and protects human and environmental health. 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 source of revenue for each utility, in 2013 accounting for about 75% of revenues in the Water Fund, 85% in the Wastewater Fund, and 80% in the Stormwater/Flood Management. 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.

Approximately forty-five percent 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 key to delivering safe and reliable services to our customers. Investment into maintenance of existing infrastructure is less costly in the long run. Other significant uses of funds include water treatment operations, wastewater treatment operations, system maintenance and water quality operations.

### Priority-based Budgeting

Similar to the 2014 budget process, the city-wide 2015 budget is being developed using the Priority-based Budgeting (PBB) approach. The end result is to align the community **Results** (or goals) that the city wishes to achieve with the allocation of resources made throughout the budget process. Each program receives a score related to how critical the program is to achieving each result. These **Result** categories are:

1. Accessible and Connected Community
2. Economically Vital Community
3. Environmentally Sustainable Community
4. Healthy and Socially Thriving Community
5. Safe Community

In addition, all city programs and services are scored relative to **Basic Program Attributes**, which are additional characteristics of programs that could increase their overall relevance. The attributes selected by the city to assist in the Program Prioritization Scoring process are:

- Mandated to Provide Service
- Change in Demand for Service
- Reliance on City to Provide Service
- Self-sufficiency/Cost Recovery

When all programs within the city are scored, they are compared to each other and placed into quartile priority rankings, with quartile one being the programs most critical to achieving city goals. Most Utilities programs have historically scored in the top two quartiles, such as those related to maintenance of infrastructure, water and wastewater treatment, and water, wastewater, and stormwater quality operations. Programs in the third quartile include billing and meter operations, hydroelectric operations, water conservation and Marshall Landfill operations. No Utilities programs scored in the fourth quartile.

### Revenues

The revenue forecasts have been updated and incorporated into the fund financials. Forecasted revenues from Plant Investment Fees (PIFs) have been adjusted up in the Water Fund to reflect recent private development activity. Hydroelectric revenues have also been adjusted with the current estimates based on projected generation and energy sales.

The preliminary draft 2015 budget provided with this memorandum reflects the following billed revenue increases: 5% Water, 7% Wastewater, and 71% Stormwater/Flood Management. The following table summarizes the 2014 adopted increase and preliminary projections for 2015-2017. The preliminary 2015 increases are in bold.

Table 1 – Proposed Rate Increases

	2014	<b>2015</b>	2016	2017
Water	4%	<b>5%</b>	6%	8%
Wastewater	5%	<b>7%</b>	7%	7%
Stormwater/Flood Management	3%	<b>71%</b>	3%	3%

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.

Utility Bill Comparisons

Estimated annual bills for the City’s current and proposed rates are compared with other Colorado Front Range communities. **Attachment B** shows the combined water and wastewater charges, and a 5% Water increase and 7% Wastewater increase puts Boulder in the middle for single-family residential bills. Since 2015 rate proposals are not yet available for the other cities, the survey uses their 2014 rates. Based on rate projections previously published by other utilities, it is expected that the City’s relative position will be similar once all 2015 rates are known.

A comparison of the charges to support the Stormwater/Flood Management utility is provided in **Attachment C**. With a 71% rate increase, Boulder’s 2015 Stormwater/Flood Management rate would be a dollar or two higher annually than the 2014 rate charged in Fort Collins and Longmont. The City of Boulder is widely considered the number one flash flood risk in Colorado due to its location at the mouth of Boulder Canyon and other major tributaries. As a result, the city devotes substantial resources to understanding, managing, and mitigating flood hazards.

A third chart, **Attachment D** shows the annual bill comparison when all three utility fees are included. Of the fifteen communities in the survey, Boulder’s combined rates would be in the middle at number eight.

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 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.

Customer Bill Impact

The proposed preliminary 2015 revenue increases (5%-7%-71%) would increase a typical residential customer’s monthly utility bill by \$8.82, or an increase of \$105.84 annually. The following table provides a breakdown of the potential increases by utility.

Table 3 – Average Monthly Bill Impacts

	Monthly Bill 2014 Rates	Monthly Bill 2015 Rates	Monthly Difference
Water	\$34.95	\$36.69	\$1.74
Wastewater	\$23.25	\$24.87	\$1.62
Stormwater/ Flood Mgmt	\$7.69	\$13.15	\$5.46
<b>Total</b>	<b>\$65.89</b>	<b>\$74.71</b>	<b>\$8.82</b>

Impact of Rate Changes

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

Table 4–Rate Impact	1%	2%	3%
Water	\$220,000	\$440,000	\$660,000
Wastewater	\$140,000	\$280,000	\$420,000
Stormwater / Flood Mgmt	\$ 53,000	\$106,000	\$159,000

Also, as a point of reference, \$100,000 provides for debt service coverage on a bond of approximately \$1,000,000. So a revenue reduction of \$100,000 could mean reduced funding for a one-time capital expense or capital bond project by \$1,000,000.

**ANTICIPATED REVENUE BONDS:**

The current 2015-2020 utility fund financials reflect several bond issuances (and associated debt payments) to fund the following capital 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. WWTF Improvements (\$18.5 million in 2020) to fund phosphorus treatment to meet Regulation 85 requirements

Stormwater and Flood Management:

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

Table 5 – Debt Obligations

<b>Utility</b>	<b>Projects</b>	<b>Year Debt is Retired</b>	<b>Approximate Annual Debt Payment</b>
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>\$763,244</i>
Wastewater	WWTP Improvements	2025	\$3,500,000
	WWTP Improvements	2030	\$674,000
	<i>WWTP Improvements – Reg 85 (2020)</i>	2040	\$1,757,500
Storm/Flood	Multiple projects including Goose Creek Improvements	2018	\$385,000
	<i>Wonderland Creek Imp. (2015)</i>	<i>2035</i>	<i>\$1,520,000</i>
	<i>South Boulder Creek Imp. (2017)</i>	<i>2037</i>	<i>\$437,000</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.

**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	\$1,500,000
Wastewater Utility	\$1,950,000
Stormwater and Flood Management Utility	\$ 11,000,000

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 draingeway 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. City staff is in the process of identifying and quantifying the disaster impacts and has developed a preliminary 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

Stormwater and Flood Management Utility:

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

## **CAPITAL IMPROVEMENT PROGRAM**

See **Attachment E** for the proposed 2015-2020 CIP.

### **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.

#### **2013 Accomplishments**

1. Over 15,000 feet of old deteriorated water pipe was replaced. Pipe is being systematically replaced based on information from the asset management system that considers factors such as pipe age, material, break history, type of break, diameter, system pressure and soil type.
2. The walls of Kohler Reservoir were replaced and work completed in the summer of 2013.
3. A construction contract for the Boulder Canyon Hydroelectric Modernization Project was executed in 2011 and work has now been completed with power generation through a revised PPA with Tri-State since June 2013.
4. One of the lower gates, Gate No. 8, on Barker Dam was successfully tested with placement of a temporary bulkhead which allowed operational testing without risk of an uncontrolled draining of the reservoir to that level. Gates No. 1 through Gate No. 8 were also inspected with the use of an underwater diving contractor and appear to be in operational condition.
5. Three Boulder Creek transmission line water crossings were replaced in Boulder Canyon.
6. A permit for the Carter Lake Pipeline was secured from Boulder County and the pipeline ROW along the existing pipe alignment was purchased. An agreement with Northern Water provides for the preliminary design and ROW acquisition along the designated and

permitted alignment in Boulder County.

7. Studies were started and continued at Betasso to inform the upcoming Capital Improvement Project.

#### Projects Anticipated for Completion 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

#### 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. 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 allocated in 2017 and construction is funded 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.

#### **2013 Accomplishments**

1. Utilities completed a major rehabilitation/improvement project at the 75<sup>th</sup> Street Wastewater Treatment Facility (WWTF). The project involved significant upgrades to the headworks facility and the digester complex, as well as the construction of a new UV Disinfection system to replace the existing chlorine gas and sulfur dioxide systems.
2. A new discharge permit was issued to the City by the State of Colorado in May 2011 which included more restrictive effluent limits for various water quality parameters including nitrogen and ammonia. In 2012, City staff commissioned an engineering analysis called the Nutrient Compliance Study (NCS) which was completed in December 2012. The NCS included a list of recommendations and associated costs for additional capital projects to be completed to improve the WWTF capability to meet the new regulations. For more information and next steps, see the highlights section below.
3. Utilities received a \$1,080,000 grant from CDPHE to help fund the planning, design and construction of WWTF facility improvements to meet more stringent nutrient effluent discharge requirements. The \$80,000 planning component is being used for facility optimization and to evaluate the need for supplemental carbon addition facilities. The \$1,000,000 design and construction component will be used to help fund the Nitrogen Upgrades project.
4. Utilities completed a Process Automation System (PAS) Strategic Plan to address instrumentation and control (I&C) upgrades at the WWTF. The PAS plan identified approximately \$6,000,000 in improvements that will be completed over the next 10 years. These improvements include various software and hardware upgrades to replace aging and antiquated systems and equipment.
5. An inflow and infiltration (I&I) study of the wastewater collection system tributary to the IBM Lift Station was completed in 2012. The purpose of this study was to quantify the

rainfall induced I&I component entering the wastewater collection system. This I&I study was scheduled in preparation for the design and construction improvements at the lift station which will be necessary to meet the CDPHE permit regulations.

6. Following the September 2013 flood, staff initiated an assessment of the wastewater collection system infrastructure. During the flood, the existing sewer system was overwhelmed by surface inflows, groundwater infiltration and illegal basement dewatering systems. Utilities maintenance crews and private contractors performed pumping and debris removal that relieved sewer backups in some areas but provided little relief in other areas. ..

#### Projects Anticipated for Completion in 2014

1. IBM Lift Station Design Improvements
2. Nitrogen Upgrades Design Improvements
3. WWTF Process Automation System (PAS) recommendations implementation
4. Wastewater collection system condition assessment and debris removal
5. Utilities will complete a brief update to the 2009 Wastewater Collection System Master Plan (WWCSMP) in to integrate flood inundation data from the 2013 flood event.

#### 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. 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 2015/2016.
4. 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.
5. 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.

6. Additional funding for construction of overflow improvements at the IBM lift station necessary to meet the CDPHE permit regulations is being considered in 2015.
7. 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. The importance and relevance of this approach is highlighted in the bar graphs presented in **Attachment F** which compare flood insurance information for Colorado front range communities. 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.

### **2013 Accomplishments**

1. Following the September 2013 flood, staff completed an assessment of the drainage infrastructure along all of the major drainageways. Flood recovery efforts for sediment and debris removal and infrastructure repair were bid in early 2014. Emergency channel repair work and sediment removal were completed along Twomile Canyon Creek, Wonderland Creek and Boulder Creek immediately after the flood, in conjunction with the Urban Drainage and Flood Control District. A post-flood evaluation of the Fourmile Canyon Creek and Wonderland Creek flood mapping study was initiated to confirm the adopted mapping.
2. A flood mapping update for Boulder Creek was submitted to FEMA in 2013.
3. A Multi-hazard Mitigation Plan was approved by City Council in April, 2013.
4. High resolution LiDAR (light and radar) data was collected in the spring of 2013 to update the city's topographic and GIS data. The updated mapping will be available in 2014.
5. Flood mapping updates are currently underway for Skunk Creek, Bluebell Creek, King's

Gulch, Upper Goose Creek, Twomile Creek, Boulder Slough and lower Bear Canyon Creek. Preliminary information from the Upper Goose Creek and Twomile Canyon Creek Flood Mapping Study was presented to WRAB in May 2013. As these mapping updates progress, they will be presented to WRAB during 2014. Once they have been adopted, flood mitigation plans will be developed to evaluate feasible capital improvements for reducing the flood risk along these creeks and tributaries.

6. Significant progress was made on the design of the Wonderland Creek Greenways and Flood improvement projects (Foothills to 30th and 30th to Winding Trail).

#### 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: Upper Goose Creek, Twomile Canyon Creek, 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.

#### 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 30<sup>th</sup> 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 30<sup>th</sup> Street. This project will include a bicycle and pedestrian underpass under the Burlington Northern Railroad. The Wonderland Creek at 28<sup>th</sup> 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 28<sup>th</sup> 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. Improvements along Fourmile Canyon Creek, 19<sup>th</sup> to 22<sup>nd</sup> Streets include 100 year flood mitigation at 19<sup>th</sup> Street, a multi-use path and an emergency access connection from 19<sup>th</sup> Street to Tamarack Avenue and a bicycle and pedestrian underpass at 19<sup>th</sup> 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 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 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 address the 2-year and 5-year storm events.

### **BUDGET SUPPLEMENTAL REQUESTS, CHANGES**

Several significant needs have been identified subsequent to adoption of the 2014 budget and are being proposed to City Council as budget adjustments. WRAB generally does not make a recommendation on mid-year budget adjustments and is not being asked to make a recommendation on these proposed changes.

- An additional \$800,000 in the Water Fund to the Waterline Replacement project. This additional funding is to coordinate with increased street rehabilitation work occurring in the Transportation division.
- Also in the water fund and additional \$270,000 for work at the Gunbarrel Storage Tank. A recent inspection of the tank revealed unanticipated steel corrosion issues inside the tank and more funding is needed to address the issue.
- An additional \$200,000 for the Sunshine Transmission Pipeline to address leaks that occurred in the line last summer.
- A request for \$90,000 to complete the Boulder Watershed Pre- and Post-Fire Plan. This plan identifies potential fire mitigation projects in the City's watershed.

### **RATE STUDIES/BALLOT ISSUES**

Staff is considering conducting rate studies for the 2016 budget year. It has been over 10 years since comprehensive rate studies have been completed for the Wastewater and Stormwater/Food Utilities. Some considerations for those rate studies may include evaluation of funding strategies for Wastewater plant upgrades, equity between customer sectors, the balance of the fixed versus variable charges, and others that will emerge as priorities through the rate study process. The Stormwater/Flood rate study can also be an opportunity to evaluate appropriate funding levels for flood work and explore opportunities for other funding options.

In the 2015 budget process, City Council will be considering a temporary short term increase in the sales and use tax rate as part of the City's Comprehensive Financial Strategy. This effort is a follow-up to the 2011 ballot item approving a \$49 million bond package for capital investments. The proposed increase would focus on unfunded capital needs that are shorter term in implementing, and are less expensive projects that can have a significant impact once completed. These projects would be pay-as-you-go rather than bond funded. Like the previous citywide

bond package, Utilities projects will not be considered because of the enterprise status of the Utility funds.

**BUDGET SCHEDULE:**

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

<u>Milestone</u>	<u>Date</u>
<b>WRAB Preliminary CIP Budget Discussion</b>	<b>April 21, 2014</b>
Budget Guidelines to Departments	April 21, 2014
<b>WRAB Draft CIP Review</b>	<b>May 19, 2014</b>
Proposed Budget Submittal to City Manager	May 30, 2014
<b>WRAB Recommendation on CIP/Budget</b>	<b>June 16, 2014</b>
Departmental Budget Review by City Manager	May/June 2014
Planning Board Recommendation on CIP	August 2014
City Council Study Session on CIP	August 12, 2014
City Council Study Session on Budget	September 9 and 23, 2014
City Council Consideration/Adoption of Budget	October 7 and 21, 2014

**NEXT STEPS:**

Staff is seeking feedback on the preliminary draft CIP, updated financial information, and potential rate impacts. This feedback will be considered by staff in developing a draft CIP for WRAB discussion at the May 19, 2014 meeting. At the June 16, 2014 WRAB meeting, staff will request that WRAB provide a final recommendation concerning the proposed 2015-2020 CIP to Planning Board and City Council.

**Attachments:**

- A:** Fund Financials – Water, Wastewater, Stormwater/Flood Management
- B:** Colorado Utility Bill Comparison – Water, Wastewater
- C:** Colorado Utility Bill Comparison – Stormwater/Flood Management
- D:** Colorado Utility Bill Comparison – Water, Wastewater, Stormwater/Flood Management
- E:** Preliminary 2015-2020 CIP, Water, Wastewater, Stormwater/Flood Management
- F:** Colorado Flood Insurance Comparison

**CITY OF BOULDER  
2014 FUND FINANCIAL  
DRAFT FOR WRAB DISCUSSION**

**WATER UTILITY**

	2013 Actual	2014 Revised	2015 Projected	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
<b>Beginning of Year Fund Balance</b>	\$ 35,375,682	\$ 34,404,474	\$ 30,124,420	\$ 30,556,569	\$ 28,840,490	\$ 29,991,378	\$ 33,301,657	\$ 37,517,937
<b>Sources of Funds</b>								
Operating-	3.0%	4.0%	5.0%	6.0%	8.0%	8.0%	5.0%	5.0%
Sale of Water to General Cust	\$ 21,066,313	\$ 21,460,807	\$ 22,363,662	\$ 23,528,592	\$ 24,989,973	\$ 27,042,933	\$ 29,264,564	\$ 30,789,032
Projected Rate Increase	-	858,432	1,118,183	1,411,716	1,999,198	2,163,435	1,463,228	1,539,452
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	2,395,484	2,404,812	2,449,120	2,508,586	2,558,724	2,558,724
Miscellaneous Operating Revenues	36,129	25,000	25,000	25,000	25,000	25,000	25,000	25,000
<b>TOTAL OPERATING SOURCES OF FUNDS</b>	<b>\$23,198,114</b>	<b>\$ 24,891,267</b>	<b>\$26,045,379</b>	<b>\$27,513,170</b>	<b>\$29,606,340</b>	<b>\$31,883,003</b>	<b>\$33,454,566</b>	<b>\$35,055,257</b>
Non-Operating--								
Plant Investment Fees	3,417,766	2,200,000	2,200,000	2,200,000	2,200,000	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	258,034	301,244	458,349	432,607	749,784	832,541	937,948
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	-
<b>TOTAL NON-OPERATING SOURCES OF FUNDS</b>	<b>\$4,413,801</b>	<b>\$3,155,819</b>	<b>7,089,279</b>	<b>\$17,531,634</b>	<b>\$2,880,892</b>	<b>\$37,298,069</b>	<b>\$11,214,826</b>	<b>\$3,186,233</b>
<b>Total Sources of Funds</b>	<b>\$27,611,915</b>	<b>\$ 28,047,086</b>	<b>\$33,134,658</b>	<b>\$ 45,044,803</b>	<b>\$ 32,487,233</b>	<b>\$ 69,181,073</b>	<b>\$ 44,669,393</b>	<b>\$ 38,241,491</b>
<b>Uses of Funds</b>								
Operating-								
Administration	\$ 943,670	\$ 883,659	\$ 910,169	\$ 937,474	\$ 965,598	\$ 994,566	\$ 1,024,403	\$ 1,055,135
Planning and Project Management	567,134	602,092	620,155	638,759	657,922	677,660	697,990	718,929
Water Resources and Hydroelectric Operations	2,623,220	2,035,907	2,096,984	2,159,894	2,224,691	2,291,431	2,360,174	2,430,979
Water Treatment	4,593,810	4,699,333	4,840,313	4,985,522	5,135,088	5,289,141	5,447,815	5,611,249
Water Quality and Environmental Svcs	981,412	1,004,893	1,035,040	1,066,091	1,098,074	1,131,016	1,164,946	1,199,895
Water Conservation	384,948	395,910	407,787	420,021	432,622	445,600	458,968	472,737
System Maintenance	3,214,315	3,165,659	3,260,629	3,358,448	3,459,201	3,562,977	3,669,866	3,779,962
Windy Gap Payment	2,394,139	2,633,250	2,714,004	2,776,959	2,396,581	336,000	341,000	346,000
Sick and Vacation Accrual	(56,413)	100,000	103,000	106,090	109,273	112,551	115,927	119,405
<b>TOTAL OPERATING USES OF FUNDS</b>	<b>\$15,646,235</b>	<b>\$ 15,520,703</b>	<b>\$15,988,081</b>	<b>\$16,449,258</b>	<b>\$16,479,049</b>	<b>\$14,840,942</b>	<b>\$15,281,090</b>	<b>\$15,734,293</b>

**CITY OF BOULDER  
2014 FUND FINANCIAL  
DRAFT FOR WRAB DISCUSSION**

**WATER UTILITY**

	<b>2013 Actual</b>	<b>2014 Revised</b>	<b>2015 Projected</b>	<b>2016 Projected</b>	<b>2017 Projected</b>	<b>2018 Projected</b>	<b>2019 Projected</b>	<b>2020 Projected</b>
<b>Debt-</b>								
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
Arbitrage Payment	-	-	-	-	-	-	-	-
Projected Bond-Betasso WTP Improvements	-	-	-	1,140,000	1,140,000	1,140,000	1,140,000	1,140,000
Projected Bond-Boulder Res WTP Improvements	-	-	-	-	-	-	-	-
Projected Bond-NCWCD Conveyance Line	-	-	-	-	-	3,224,177	3,224,177	3,224,177
Projected Bond - Barker Dam	-	-	-	-	-	-	763,244	763,244
<b>TOTAL DEBT SERVICE</b>	<b>\$5,424,709</b>	<b>\$5,437,115</b>	<b>\$5,445,495</b>	<b>\$6,581,869</b>	<b>\$5,729,566</b>	<b>\$8,960,910</b>	<b>\$8,583,339</b>	<b>7,208,787</b>
<b>Transfers -</b>								
Cost Allocation	1,208,285	1,255,221	1,317,982	1,383,881	1,453,075	1,525,729	1,602,015	1,682,116
Planning & Development Services	206,373	212,564	218,941	225,509	232,274	239,243	246,420	253,813
General Fund - City Attorney	31,893	52,888	55,004	57,204	59,492	61,871	64,346	66,277
<b>Capital</b>	<b>\$6,009,216</b>	<b>4,025,000</b>	<b>9,780,007</b>	<b>\$10,044,251</b>	<b>7,492,162</b>	<b>6,065,949</b>	<b>6,657,687</b>	<b>12,068,898</b>
Projected Bond - Betasso WTP IMP	-	-	-	\$12,000,000	-	-	-	-
Projected Bond - BRWTP IMP	-	-	-	-	-	-	-	-
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	-	5,923,648	-	-	-	-	-	-
<b>Total Uses of Funds</b>	<b>\$ 28,526,710</b>	<b>\$ 32,427,139</b>	<b>\$ 32,805,510</b>	<b>\$46,866,972</b>	<b>\$ 31,445,618</b>	<b>\$65,983,344</b>	<b>\$ 40,569,041</b>	<b>\$37,014,183</b>
Sick/Vacation Accrual Adjustment	\$ (56,413)	\$ 100,000	\$ 103,000	\$ 106,090	\$ 109,273	\$ 112,551	\$ 115,927	\$ 119,405
<b>Ending Fund Balance Before Reserves</b>	<b>\$ 34,404,474</b>	<b>\$ 30,124,420</b>	<b>\$ 30,556,569</b>	<b>\$ 28,840,490</b>	<b>\$ 29,991,378</b>	<b>\$ 33,301,657</b>	<b>\$ 37,517,937</b>	<b>\$ 38,864,649</b>
<b>Reserves</b>								
Bond Reserve	\$ 2,934,796	\$ 2,934,796	\$ 2,934,796	\$ 4,074,439	\$ 3,221,072	\$ 6,725,873	\$ 7,211,078	\$ 7,633,908
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	4,273,196	4,260,344	4,395,002	4,528,963	4,555,973	4,166,946	4,298,468	4,434,125
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
<b>Total Reserves</b>	<b>\$ 24,827,171</b>	<b>\$ 25,538,800</b>	<b>\$ 26,407,860</b>	<b>\$ 28,711,126</b>	<b>\$ 28,944,190</b>	<b>\$ 33,150,051</b>	<b>\$ 34,567,356</b>	<b>\$ 36,270,316</b>
<b>Ending Fund Balance After Reserves</b>	<b>\$ 9,577,303</b>	<b>\$ 4,585,620</b>	<b>\$ 4,148,709</b>	<b>\$ 129,364</b>	<b>\$ 1,047,187</b>	<b>\$ 151,606</b>	<b>\$ 2,950,581</b>	<b>\$ 2,594,333</b>

**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.

**CITY OF BOULDER  
2014 FUND FINANCIAL  
DRAFT FOR WRAB DISCUSSION**

**WASTEWATER UTILITY**

	2013 Actual	2014 Projected	2015 Projected	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
<b>Beginning Fund Balance</b>	\$ 13,034,309	\$ 12,495,508	\$ 10,677,862	\$ 8,889,743	\$ 8,526,184	\$ 8,086,144	\$ 8,708,017	\$ 9,610,665
<b>Sources of Funds</b>								
Operating-		5%	7%	7%	7%	7%	9%	5%
Sewer Charges to General Customers	\$ 13,900,486	\$ 13,426,614	\$ 14,126,140	\$ 15,145,200	\$ 16,237,775	\$ 17,409,168	\$ 18,665,065	\$ 20,385,611
Projected Rate Increase	-	671,331	988,830	1,060,164	1,136,644	1,218,642	1,679,856	1,019,281
Surcharge/ Pretreatment Fees	157,674	118,000	118,000	118,000	118,000	118,000	118,000	118,000
<b>TOTAL OPERATING SOURCES OF FUNDS</b>	<b>14,058,161</b>	<b>14,215,944</b>	<b>15,232,970</b>	<b>16,323,364</b>	<b>17,492,419</b>	<b>18,745,809</b>	<b>20,462,921</b>	<b>21,522,891</b>
Non-Operating-								
Plant Investment Fees	952,501	650,000	650,000	650,000	650,000	650,000	650,000	650,000
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	-	1,080,000	1,462,500	-	-	-	-	-
Interest on Investments	88,616	312,388	160,168	177,795	213,155	242,584	261,241	288,320
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	-	-	-	-	-
Bond Proceeds	-	-	-	-	-	-	-	18,625,000
<b>TOTAL NON-OPERATING SOURCES OF FUNDS</b>	<b>1,355,208</b>	<b>2,058,888</b>	<b>2,646,543</b>	<b>844,295</b>	<b>879,655</b>	<b>909,084</b>	<b>927,741</b>	<b>19,579,820</b>
<b>Total Sources of Funds</b>	<b>\$ 15,413,369</b>	<b>\$ 16,274,832</b>	<b>\$ 17,879,513</b>	<b>\$ 17,167,659</b>	<b>\$ 18,372,073</b>	<b>\$ 19,654,894</b>	<b>\$ 21,390,661</b>	<b>\$ 41,102,711</b>
<b>Uses of Funds</b>								
Operating-								
Administration	\$ 507,244	\$ 566,554	\$ 583,551	\$ 601,057	\$ 619,089	\$ 637,662	\$ 656,791	\$ 676,495
Planning and Project Management	195,715	352,768	363,351	374,252	385,479	397,043	408,955	421,223
Wastewater Quality & Environmental Svcs	1,113,531	1,154,257	1,188,885	1,224,551	1,261,288	1,299,126	1,338,100	1,378,243
System Maintenance	1,754,263	1,697,108	1,748,021	1,800,462	1,854,476	1,910,110	1,967,413	2,026,436
Wastewater Treatment	4,910,241	5,134,520	5,288,556	5,447,212	5,610,629	5,778,947	5,952,316	6,130,885
Sick/Vacation Accrual	14,115	75,000	77,250	79,568	81,955	84,413	86,946	89,554
<b>TOTAL OPERATING USES OF FUNDS</b>	<b>8,495,109</b>	<b>8,980,207</b>	<b>9,249,613</b>	<b>9,527,102</b>	<b>9,812,915</b>	<b>10,107,302</b>	<b>10,410,521</b>	<b>10,722,837</b>

**CITY OF BOULDER  
2014 FUND FINANCIAL  
DRAFT FOR WRAB DISCUSSION**

**WASTEWATER UTILITY**

	<b>2013 Actual</b>	<b>2014 Projected</b>	<b>2015 Projected</b>	<b>2016 Projected</b>	<b>2017 Projected</b>	<b>2018 Projected</b>	<b>2019 Projected</b>	<b>2020 Projected</b>
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	3,145,375
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								1,757,500
Transfers-								
Cost Allocation	866,761	900,430	945,452	992,725	1,042,361	1,094,479	1,149,203	1,206,663
Planning & Development Services	207,000	213,210	219,606	226,194	232,980	239,969	247,168	254,583
General Fund - Utilities Attorney	10,631	17,629	18,334	19,068	19,830	20,623	21,448	22,306
Capital Improvement Program	\$1,755,088	1,777,654	5,199,776	2,972,384	3,937,919	3,829,068	4,927,230	5,844,024
2011 Bond-UV, Digester, Headworks IMP	490,499	16,346	-	-	-	-	-	-
PROJECTED BOND-WWTP IMPROVEMENTS	-	-	-	-	-	-	-	18,500,000
Bond Issuance Costs	-	-	-	-	-	-	-	125,000
Carryover, Encumbrances and Adjustments to Base	-	2,128,102	-	-	-	-	-	-
<b>Total Uses of Funds</b>	<b>\$ 15,966,284</b>	<b>\$ 18,167,478</b>	<b>\$ 19,744,882</b>	<b>\$ 17,610,785</b>	<b>\$ 18,894,068</b>	<b>\$ 19,117,433</b>	<b>\$ 20,574,959</b>	<b>\$ 42,248,176</b>
Sick/Vacation Accrual Adjustment	\$ 14,115	\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,413	\$ 86,946	\$ 89,554
<b>Ending Fund Balance Before Reserves</b>	<b>\$ 12,495,508</b>	<b>\$ 10,677,862</b>	<b>\$ 8,889,743</b>	<b>\$ 8,526,184</b>	<b>\$ 8,086,144</b>	<b>\$ 8,708,017</b>	<b>\$ 9,610,665</b>	<b>\$ 8,554,755</b>
<b>Reserves</b>								
Bond Reserves	\$ 670,139	\$ 670,139	\$ 670,139	\$ 670,139	\$ 670,139	\$ 670,139	\$ 670,139	\$ 2,427,639
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	2,608,251	2,691,272	2,777,021	2,865,593	2,957,085	3,051,597
Capital Reserve	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
<b>Total Reserves</b>	<b>\$ 4,253,017</b>	<b>\$ 4,442,547</b>	<b>\$ 4,579,991</b>	<b>\$ 4,720,615</b>	<b>\$ 4,864,526</b>	<b>\$ 5,011,835</b>	<b>\$ 5,162,655</b>	<b>\$ 7,074,606</b>
<b>Ending Fund Balance After Reserves</b>	<b>\$ 8,242,491</b>	<b>\$ 6,235,315</b>	<b>\$ 4,309,752</b>	<b>\$ 3,805,569</b>	<b>\$ 3,221,617</b>	<b>\$ 3,696,183</b>	<b>\$ 4,448,010</b>	<b>\$ 1,480,149</b>

**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.

**CITY OF BOULDER**  
**2014 FUND FINANCIAL**  
**DRAFT FOR WRAB DISCUSSION**

**STORMWATER/FLOOD MANAGEMENT UTILITY**

	2013 Actual	2014 Projected	2015 Projected	2016 Projected	2017 Projected	2018 Projected	2019 Projected	2020 Projected
<b>Beginning Fund Balance</b>	\$ 15,373,639	\$ 16,651,883	\$ 3,406,788	\$ 12,805,910	\$ 9,493,194	\$ 7,212,769	\$ 5,992,855	\$ 6,212,732
<b>Sources of Funds</b>								
Operating-		3%	71%	3%	3%	3%	3%	3%
Service Charge Fees	\$ 5,505,792	\$ 5,157,008	\$ 5,322,342	\$ 9,119,407	\$ 9,411,775	\$ 9,713,517	\$ 10,024,932	\$ 10,346,332
Projected Rate Increases	-	154,710	3,778,863	273,582	282,353	291,406	300,748	310,390
<b>TOTAL OPERATING SOURCES OF FUNDS</b>	<b>5,505,792</b>	<b>5,311,719</b>	<b>9,101,205</b>	<b>9,392,989</b>	<b>9,694,129</b>	<b>10,004,922</b>	<b>10,325,680</b>	<b>10,656,722</b>
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	-	2,785,479	267,500	170,000	500,000	412,000	424,360	437,091
State and Federal Grants	58,216	2,841,784	8,250,000	-	-	-	-	-
Interest on Investments	102,124	416,297	51,102	256,118	237,330	216,383	179,786	186,382
Intergovernmental Transfers (KICP Program)	120,406	159,135	163,909	168,826	173,891	179,108	184,481	190,016
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	-	-	16,075,000	-	-	10,150,000	-	-
<b>TOTAL NON-OPERATING SOURCES OF FUN</b>	<b>\$918,986</b>	<b>\$6,642,695</b>	<b>\$25,604,886</b>	<b>\$1,034,945</b>	<b>\$1,316,221</b>	<b>\$11,362,491</b>	<b>\$1,193,627</b>	<b>\$1,218,488</b>
<b>Total Sources of Funds</b>	<b>\$ 6,424,778</b>	<b>\$ 11,954,414</b>	<b>\$ 34,706,091</b>	<b>\$10,427,934</b>	<b>\$ 11,010,350</b>	<b>\$ 21,367,413</b>	<b>\$ 11,519,307</b>	<b>\$ 11,875,210</b>
<b>Uses of Funds</b>								
Operating-								
Administration	\$ 402,081	\$ 400,927	\$ 412,955	\$ 425,343	\$ 438,104	\$ 451,247	\$ 464,784	\$ 478,728
Planning and Project Management	1,088,823	1,082,866	1,115,352	1,148,813	1,183,277	1,218,775	1,255,338	1,292,999
Stormwater Contract Management	44,444	49,442	50,925	52,453	54,027	55,647	57,317	59,036
Stormwater Quality and Education	829,879	953,534	982,140	1,011,604	1,041,952	1,073,211	1,105,407	1,138,569
System Maintenance	830,109	817,412	841,934	867,192	893,208	920,004	947,605	976,033
Sick/Vacation Accrual	(13,064)	50,000	51,500	53,045	54,636	56,275	57,964	59,703
Debt--								
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
Transfers-								
Cost Allocation	211,245	219,451	230,424	241,945	254,042	266,744	280,081	294,085
Planning & Development Services	124,768	128,511	132,366	136,337	140,428	144,640	148,980	153,449
General Fund - Utilities Attorney	10,631	17,629	18,334	19,068	19,830	20,623	21,448	22,092
Capital	\$1,213,012	9,821,500	19,540,500	7,936,220	7,359,769	5,436,260	4,548,469	\$7,237,252
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	-	11,324,195	-	-	-	-	-	-
<b>Total Uses of Funds</b>	<b>\$ 5,133,470</b>	<b>\$ 25,249,509</b>	<b>\$ 25,358,469</b>	<b>\$ 13,793,695</b>	<b>\$ 13,345,411</b>	<b>\$ 22,643,603</b>	<b>\$ 11,357,394</b>	<b>\$ 14,181,946</b>

**CITY OF BOULDER  
2014 FUND FINANCIAL  
DRAFT FOR WRAB DISCUSSION**

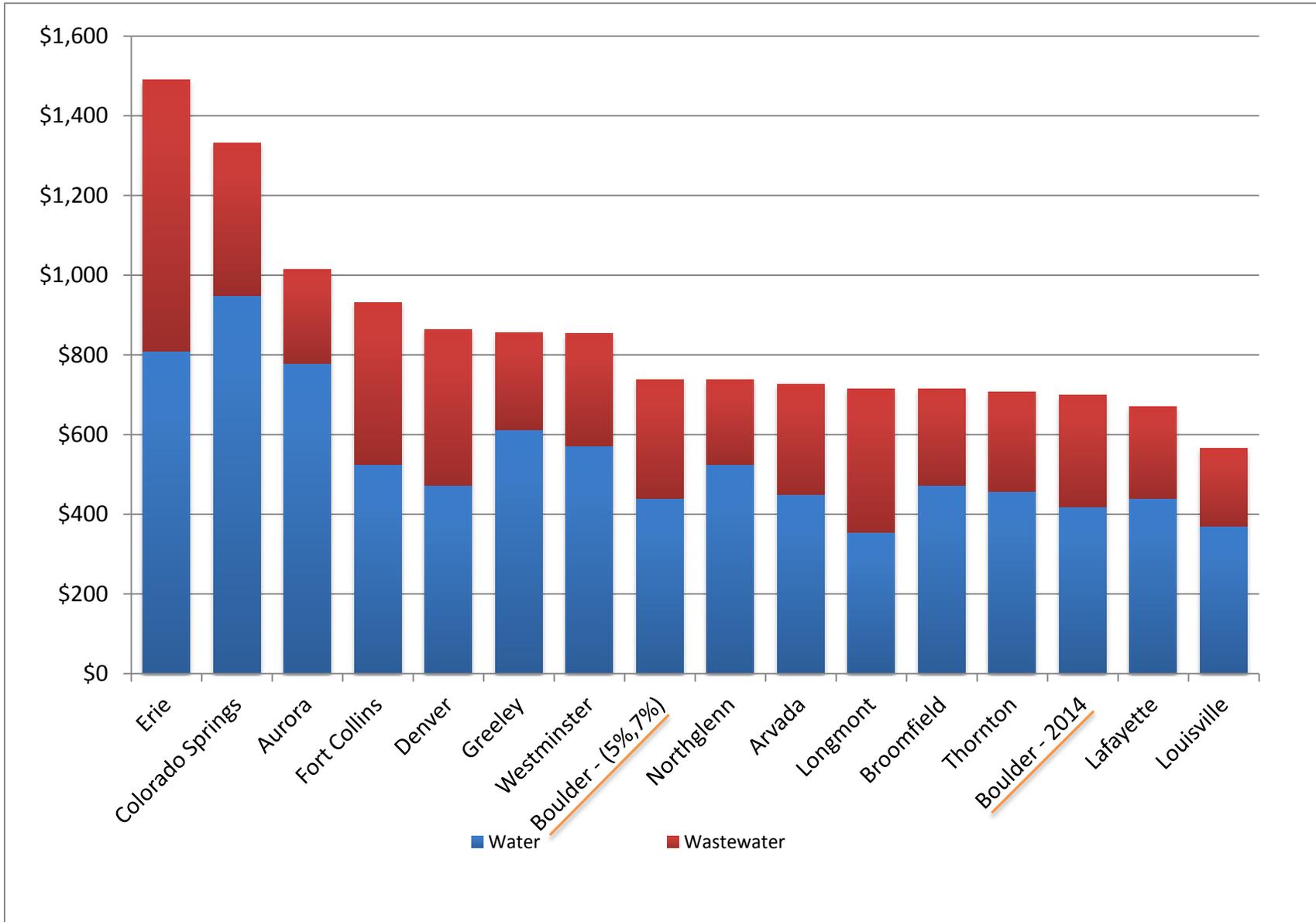
**STORMWATER/FLOOD MANAGEMENT UTILITY**

	<b>2013 Actual</b>	<b>2014 Projected</b>	<b>2015 Projected</b>	<b>2016 Projected</b>	<b>2017 Projected</b>	<b>2018 Projected</b>	<b>2019 Projected</b>	<b>2020 Projected</b>
Sick and Vacation Accrual Adjustment	\$ (13,064)	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636	\$ 56,275	\$ 57,964	\$ 59,703
<b>Ending Fund Balance Before Reserves</b>	<b>\$ 16,651,883</b>	<b>\$ 3,406,788</b>	<b>\$ 12,805,910</b>	<b>\$ 9,493,194</b>	<b>\$ 7,212,769</b>	<b>\$ 5,992,855</b>	<b>\$ 6,212,732</b>	<b>\$ 3,965,699</b>
<b>Reserves</b>								
Bond Reserves	\$ 324,984	\$ 324,984	\$ 324,984	\$ 324,984	\$ 762,019	\$ 437,035	\$ 437,035	\$ 437,035
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	882,229	929,943	958,983	988,950	1,019,876	1,051,792	1,084,731	1,118,673
Capital Reserve	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
<b>Total Reserves</b>	<b>\$ 2,538,187</b>	<b>\$ 2,600,686</b>	<b>\$ 2,644,564</b>	<b>\$ 2,689,425</b>	<b>\$ 3,172,336</b>	<b>\$ 2,894,277</b>	<b>\$ 2,942,285</b>	<b>\$ 2,992,047</b>
<b>Ending Fund Balance After Reserves</b>	<b>\$14,113,696</b>	<b>\$806,102</b>	<b>\$10,161,346</b>	<b>\$6,803,769</b>	<b>\$4,040,433</b>	<b>\$3,098,579</b>	<b>\$3,270,447</b>	<b>\$973,652</b>

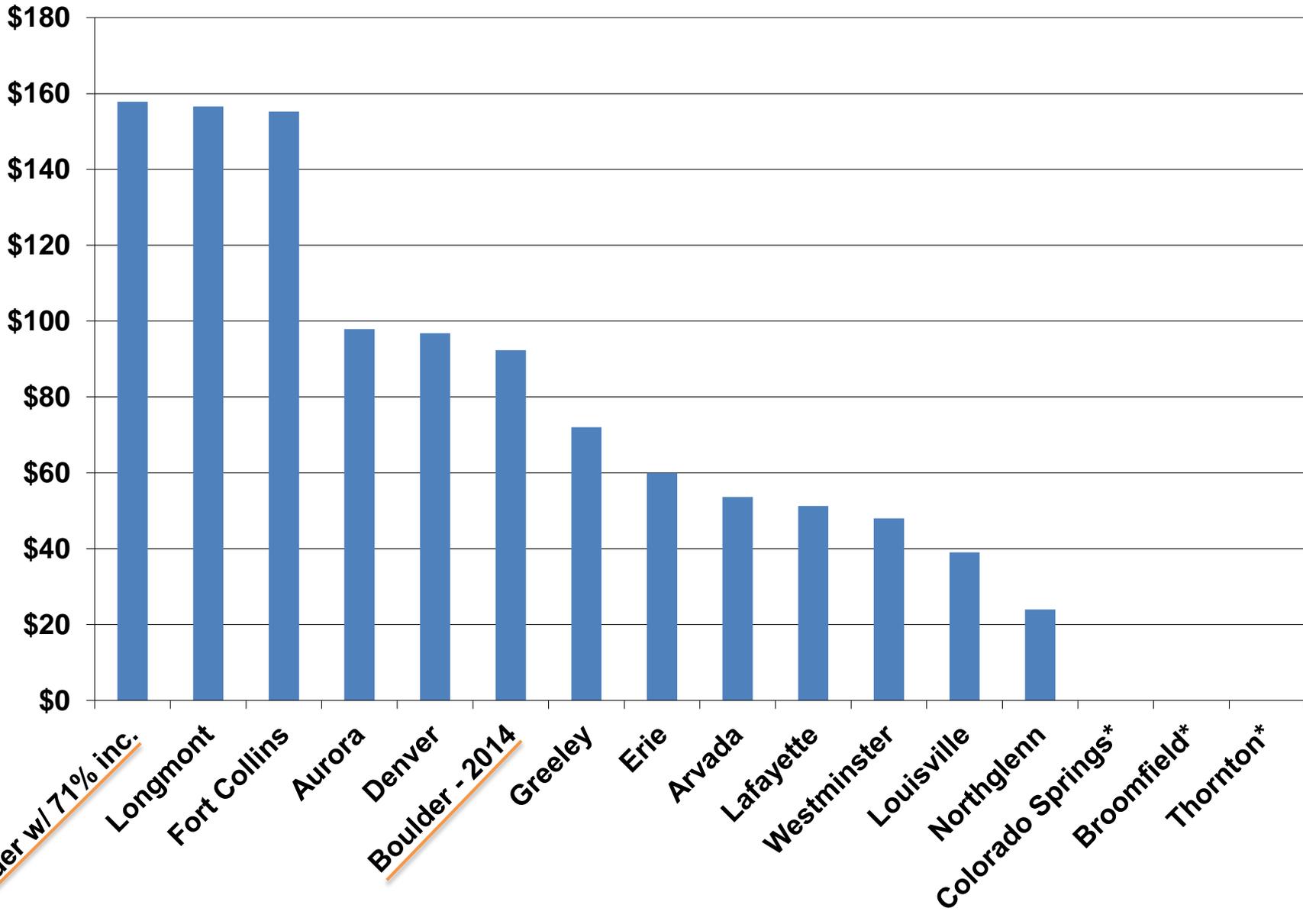
**Note:**

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.

# 2014 Water and Wastewater Rates

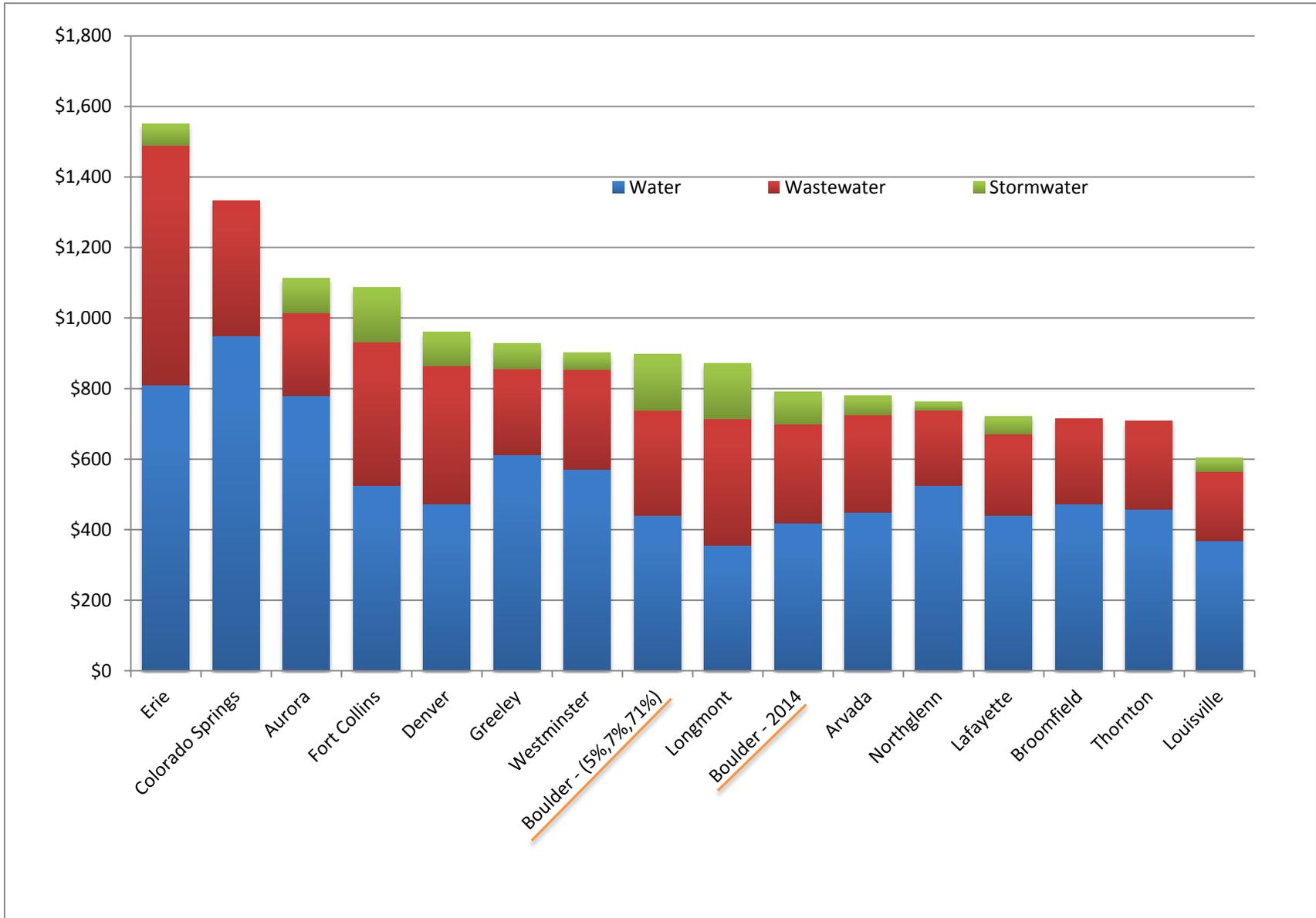


# 2014 Flood/Stormwater Rates



\*Cities with no Stormwater Utility Fee

# Combined 2014 Utility Rates



**Attachment E -  
Utility CIPs**

	A	B	G	H	I	J	K	L	M	N
1	14-Apr-14					CITY OF BOULDER				
2						2014-2019 CAPITAL IMPROVEMENT PROGRAM				
3						WATER UTILITY FUND				
4										
5										
6	Assumed Inflation Rate	4.00%	2013	2014	2015	2016	2017	2018	2019	2020
7	PROJECT NAME		ACTUAL	REVISED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED
8										
9	<b>Treated Water Pressure Reducing and Hydroelectric Facilities</b>									
10	Kohler Hydro/PRV Facility	411376	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0
11	Maxwell Hydro/PRV Facility	411342	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0
12	Orodel Hydro/PRV Facility	411331	\$18,860	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13	Sunshine Hydro/PRV Facility	411347	\$0	\$0	\$0	\$0	\$271,875	\$0	\$0	\$0
14	Pearl Street Hydro/PRV Facility		\$0	\$0	\$0	\$0	\$0	\$24,333	\$243,331	\$0
15	<b>Subtotal - Treated Water PRV and Hydro</b>		\$18,860	\$100,000	\$0	\$0	\$271,875	\$24,333	\$243,331	\$0
16										
17	<b>Water Treatment Facilities</b>									
18	Betasso WTF	411947	\$154,884	\$815,985	\$700,000	\$0	\$0	\$0	\$0	\$0
19	Betasso WTF - Bond Proceeds		\$0	\$0	\$0	\$12,000,000	\$0	\$0	\$0	\$0
20	Bond Issuance Costs		\$0	\$0	\$0	\$125,000	\$0	\$350,000	\$100,000	\$0
21	Boulder Reservoir WTF	411652	\$110,046	\$131,886	\$0	\$164,000	\$0	\$0	\$0	\$0
22	Boulder Res WTF - Bond Proceeds		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
23	<b>Subtotal - Water Treatment Facilities</b>		\$264,930	\$947,871	\$700,000	\$12,289,000	\$0	\$350,000	\$100,000	\$0
24										
25	<b>Treated Water Pump Stations</b>									
26	Cherryvale Pump Station	411010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
27	Boulder Reservoir WTF High Service Pump Station	411011	\$0	\$162,800	\$0	\$0	\$0	\$0	\$0	\$0
28	Iris Pump Stations	411012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
29	<b>Subtotal - Treated Water Pump Stations</b>		\$0	\$162,800	\$0	\$0	\$0	\$0	\$0	\$0
30										
31	<b>Treated Water Storage Tanks</b>									
32	Gunbarrel Storage Tank	411670	\$10,968	\$524,830	\$0	\$0	\$0	\$0	\$0	\$0
33	Maxwell Storage Tank	411673	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
34	Booten Storage Tank		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35	Devil's Thumb Storage Tank	411674	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0
36	Kohler Storage Tank	411671	\$232,724	\$0	\$103,487	\$799,875	\$0	\$0	\$0	\$0
37	Chautauqua Storage Tank	411672	\$250,118	\$155,219	\$0	\$0	\$0	\$0	\$0	\$0
38	Betasso Storage Tank		\$0	\$0	\$0	\$0	\$292,465	\$0	\$0	\$0
39	Boulder Reservoir Storage Tank		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
40	<b>Subtotal - Treated Water Storage Tanks</b>		\$493,811	\$680,049	\$153,487	\$799,875	\$292,465	\$0	\$0	\$0
41										
42	<b>Treated Water Distribution System</b>									
43	Zone Isolation Valves	411390	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
44	Cathodic Protection	411387	\$7,637	\$0	\$0	\$0	\$0	\$0	\$0	\$0
45	Waterline Replacement	411389	\$2,396,775	\$3,642,831	\$3,224,000	\$3,352,960	\$3,487,078	\$3,626,562	\$3,771,624	\$3,224,033
46	<b>Subtotal - Treated Water Distribution System</b>		\$2,404,412	\$3,642,831	\$3,224,000	\$3,352,960	\$3,487,078	\$3,626,562	\$3,771,624	\$3,224,033
47										
48	<b>Treated Water Transmission System</b>									
49	Sunshine Transmission Pipe	411006	\$21,747	\$978,252	\$1,000,000	\$0	\$0	\$0	\$0	\$0
50	Boulder Canyon - Orodel to Fourmile Pipe	411007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
51	Mountain Transmission Pipes	411007	\$69,778	\$0	\$0	\$0	\$0	\$0	\$0	\$0
52	Zone 1 Transmission Pipes	411002	\$0	\$0	\$0	\$0	\$0	\$250,000	\$0	\$0
53	Zone 2 Transmission Pipes	411004	\$0	\$0	\$0	\$0	\$250,000	\$0	\$0	\$250,000
54	Zone 3 Transmission Pipes	411005	\$0	\$0	\$0	\$1,200,000	\$0	\$0	\$250,000	\$0
55	<b>Subtotal - Treated Water Transmission System</b>		\$91,525	\$978,252	\$1,000,000	\$1,200,000	\$250,000	\$250,000	\$250,000	\$250,000
56										
57	<b>Source Water Transmission System</b>									
58	Lakewood Pipeline	411780	\$0	\$260,000	\$270,400	\$0	\$0	\$0	\$316,330	\$0
59	Silver Lake Pipeline	411640	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60	Source Water Transmission Pipe Inspections	411775	\$6,347	\$73,653	\$0	\$0	\$0	\$0	\$0	\$0
61	<b>Subtotal - Source Water Transmission System</b>		\$6,347	\$333,653	\$270,400	\$0	\$0	\$0	\$316,330	\$0
62										
63	<b>Barker Water System</b>									
64	Barker Gravity Pipeline Repair	411106	\$572,665	\$402,711	\$378,560	\$667,416	\$612,436	\$636,933	\$662,410	\$688,907
65	Barker-Kossler Penstock Repair	411107	\$0	\$0	\$0	\$0	\$116,986	\$0	\$0	\$0
66	Barker Dam Outlet	411109	\$0	\$0	\$0	\$50,000	\$175,000	\$803,414	\$0	\$0
67	Barker Dam Outlet - Bond Proceeds		\$0	\$0	\$0	\$0	\$0	\$0	\$8,034,143	\$0
68	Barker Dam and Reservoir	411110	\$0	\$119,040	\$378,560	\$0	\$0	\$0	\$0	\$0
69	Barker Hydro System Integration	411111	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70	Barker Relicensing	411112	\$39,621	\$109,612	\$0	\$0	\$0	\$0	\$0	\$0
71	Barker Instream Flow Release	411114	\$0	\$6,052	\$0	\$0	\$0	\$0	\$0	\$0
72	Barker Residence	411130	\$6,718	\$443,281	\$0	\$0	\$0	\$0	\$0	\$0
73	Betasso Penstock	411940	\$4,823	\$0	\$0	\$0	\$0	\$0	\$0	\$0
74	Kossler Dam	411119	\$35,961	\$192,022	\$0	\$0	\$0	\$0	\$0	\$0
75	<b>Subtotal - Barker Water System</b>		\$659,789	\$1,272,718	\$757,120	\$717,416	\$904,422	\$1,440,347	\$8,696,554	\$688,907
76										
77	<b>Raw Water Storage Reservoirs</b>									
78	Albion Dam	411628	\$0	\$80,000	\$0	\$0	\$0	\$0	\$0	\$0
79	Silver Lake Dam		\$0	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0
80	Island Lake Dam	411626	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
81	Green Lake 1 Dam		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
82	Green Lake 2 Dam - Bond Proceeds		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
83	Green Lake 2 Dam	411627	\$0	\$75,000	\$0	\$0	\$0	\$75,000	\$75,000	\$468,051
84	Green Lake 3 Dam		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
85	Goose Lake Dam	411612	\$0	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0
86	Boulder Reservoir		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$118,434
87	Lakewood Dam	411981	\$0	\$0	\$0	\$0	\$0	\$124,707	\$0	\$0
88	Skyscraper Dam		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
89	Wittemyer Ponds		\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$492,685
90	<b>Subtotal - Raw Water Storage Reservoirs</b>		\$0	\$155,000	\$95,000	\$0	\$0	\$124,707	\$175,000	\$1,079,169
91										
92	<b>Other Raw Water Facilities</b>									
93	Farmer's Ditch	411550	\$0	\$0	\$0	\$0	\$0	\$0	\$108,160	\$0
94	Anderson Ditch	411883	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
95	Watershed Improvements	411770	\$62,838	\$145,243	\$80,000	\$80,000	\$0	\$0	\$0	\$100,000
96	Nederland WWTP	411565	\$370,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
97	Instream Flow Structures and Gaging	411549	\$1,040	\$48,428	\$0	\$0	\$0	\$0	\$0	\$0
98	Como Creek Diversion Structure	411548	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
99	Lakewood Diversion Structure		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
100	Silver Lake Diversion Structure		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
101	NCWCD Conveyance - Boulder Feeder Canal	411546	\$325	\$61,297	\$0	\$0	\$0	\$0	\$0	\$0
102	NCWCD Conveyance - Carter Lake Pipeline	411547	\$366,756	\$250,000	\$500,000	\$850,000	\$2,036,322	\$0	\$0	\$0
103	NCWCD Conveyance - Bond Proceeds		\$0	\$0	\$0	\$0	\$0	\$33,938,701	\$0	\$0
104	<b>Subtotal - Other Raw Water Facilities</b>		\$800,959	\$504,968	\$580,000	\$930,000	\$2,036,322	\$33,938,701	\$108,160	\$100,000
105										
106	<b>Source Water Pressure Reducing, Pumping and Hydroelectric</b>									
107	Lakewood Hydroelectric/PRV	411801	\$0	\$0	\$0	\$130,000	\$0	\$0	\$300,000	\$0
108	Silver Lake Hydroelectric/PRV	411970	\$0	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0
109	Boulder Reservoir Intake and Pumping	411655	\$7,225	\$12,455	\$0	\$0	\$0	\$0	\$0	\$0
110	Betasso Hydroelectric / Pressure Reducing Facility	411974	\$0	\$0	\$0	\$0	\$0	\$250,000	\$0	\$0
111	Barker Dam Hydroelectric		\$0	\$0	\$0	\$0	\$0	\$50,000	\$390,832	\$0
112	Barker Dam Hydro - Bond Proceeds		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,908,317
113	Boulder Canyon Hydroelectric	411975	\$183,155	\$134,397	\$0	\$0	\$0	\$0	\$0	\$0
114	Boulder Canyon Hydro - Grant	411976	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
115	Boulder Canyon Hydro - Grant	411977	\$4,237	\$0	\$0	\$0	\$0	\$0	\$0	\$0
116	Carter Lake Hydroelectric		\$0	\$0	\$0	\$0	\$0	\$50,000	\$250,000	\$0
117	Carter Lake Hydro - Bond Proceeds		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,500,000
118	Source Water Pressure Reducing, Pumping and Hydroelectric		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$193,472
119	<b>Subtotal - Source Water PRV, Pumping and Hydro</b>		\$194,618	\$146,852	\$150,000	\$130,000	\$0	\$350,000	\$940,832	\$6,601,789
120										
121	<b>Water Distribution System Expansion</b>									
122	Annexation Related Water System Expansion	411433	\$0	\$0	\$2,500,000	\$2,500,000	\$0	\$0	\$0	\$0
123	<b>Subtotal - Water Distribution System Expansion</b>		\$0	\$0	\$2,500,000	\$2,500,000	\$0	\$0	\$0	\$0
124										
125	<b>Water System Monitoring and Metering</b>									
126	Automated Meter Reading	411454	\$274,556	\$0	\$0	\$0	\$0	\$0	\$0	\$0
127	Water System Security/Quality Improvements	411440	\$32,132	\$13,561	\$150,000	\$150,000	\$150,0			

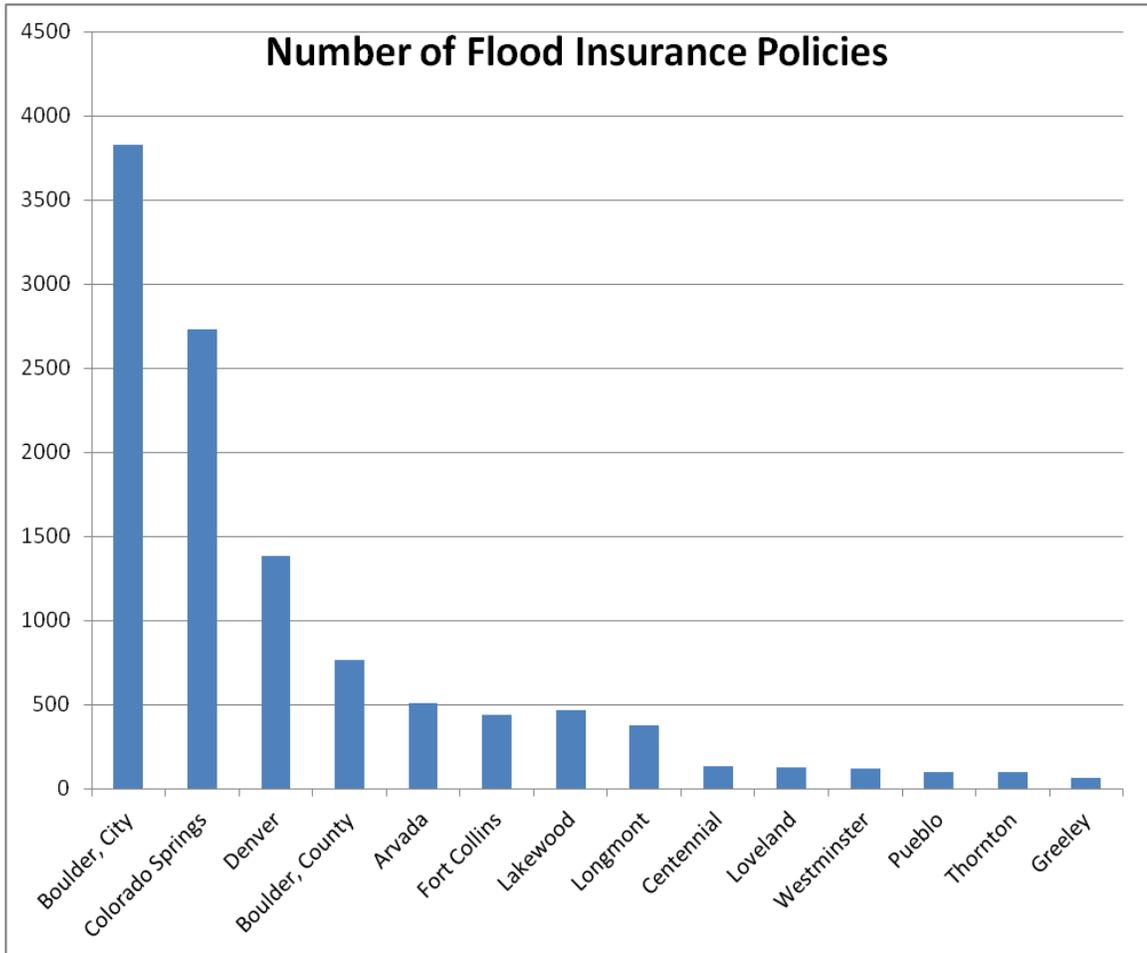
**Attachment E -  
Utility CIPs**

	A	B	G	H	I	J	K	L	M	N	
1	14-Apr-14				CITY OF BOULDER						
2					2014 - 2019 CAPITAL IMPROVEMENT PROGRAM						
3					WASTEWATER UTILITY FUND						
4											
5											
6	<b>Assumed Inflation Rate</b>	<b>4.00%</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	
7	<b>PROJECT NAME</b>		<b>ACTUAL</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	
8											
9	<b>Wastewater Treatment</b>										
10	WWTF Pumps	421339	\$4,748	\$150,000	\$0	\$150,000	\$0	\$0	\$0	\$0	
11	WWTF Permit Improvements	421617	\$0	\$365,241	\$1,650,000	\$150,000	\$0	\$750,000	\$1,500,000	\$0	
12	<b>WWTF Nutrient Management Grant</b>	<b>421618</b>	<b>\$25,292</b>								
13	<b>WWTF Permit Improvements - Proj. Bond</b>	<b>425xxx</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$18,500,000</b>	
14	WWTF Laboratory	421010	\$5,795	\$25,163	\$0	\$50,000	\$0	\$0	\$0	\$0	
15	Lower Boulder Creek Enhancement	421661	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
16	WWTF Headworks	421003	\$132,474	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
17	<b>WWTF Headworks - Proj. Bond</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
18	WWTF Instrumentation/Control	421437	\$93,500	\$586,677	\$540,800	\$0	\$674,918	\$701,915	\$729,992	\$759,191	
19	WWTF Electrical	421439	\$0	\$100,000	\$0	\$120,000	\$1,200,000	\$0	\$0	\$0	
20	WWTF Activated Sludge		\$0	\$0	\$389,376	\$0	\$58,493	\$0	\$0	\$0	
21	WWTF Primary Clarifiers	421005	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
22	WWTF Secondary Clarifiers	421006	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
23	WWTF UV Disinfection	421110	\$373,041	\$3,257	\$0	\$0	\$0	\$0	\$0	\$0	
24	<b>WWTF UV Disinfection - Proj. Bond</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
25	<b>WWTF Permit Improvements - 2010 Bond</b>	<b>424901</b>	<b>\$490,499</b>	<b>\$16,346</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
26	WWTF Rehabilitation		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000	
27	Valmont Butte	421675	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
28	Biosolids Processing & Dewatering	421670	\$92,935	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	
29	WWTF Biosolids Digester	421671	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
30	<b>WWTF Biosolids Digester - Proj. Bond</b>	<b>424xxx</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
31	WWTF Cogeneration	421329	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	\$184,481	
32	WWTF Digester Complex	421007	\$0	\$0	\$0	\$0	\$0	\$0	\$200,000	\$2,000,000	
33	<b>September 2013 Flood Disaster Recovery</b>	<b>421913</b>	<b>\$389,570</b>	<b>\$1,560,430</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
34	WWTF Digester Cleaning	421360	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
35	<b>Bond Issuance Costs</b>	<b>423998</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$125,000</b>	
36	<b>Subtotal - Wastewater Treatment Plant</b>		<b>\$1,607,854</b>	<b>\$3,107,114</b>	<b>\$2,580,176</b>	<b>\$470,000</b>	<b>\$1,933,411</b>	<b>\$1,451,915</b>	<b>\$2,429,992</b>	<b>\$21,718,672</b>	
37											
38	<b>Marshall Landfill</b>										
39	Marshall Landfill	421078	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0	
40	<b>Subtotal - Marshall Landfill</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$100,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
41											
42	<b>Wastewater System Monitoring and Metering</b>										
43	Yards Master Plan Implementation	421039	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	
44	Automated Meter Reading	421548	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
45	Utility Billing Computer System Replacement	421453	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$65,000	
46	<b>Subtotal - Monitoring and Metering</b>		<b>\$0</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$65,000</b>	
47											
48	<b>Collection and Conveyance System Rehabilitation</b>										
49	Collection System Monitoring	421450	\$0	\$100,000	\$0	\$250,000	\$0	\$0	\$0	\$0	
50	<b>Condition Assessment Program</b>				<b>\$1,081,600</b>	<b>\$1,124,864</b>	<b>\$935,887</b>	<b>\$973,322</b>	<b>\$1,012,255</b>	<b>\$493,474</b>	
51	Sanitary Sewer Rehabilitation	421002	\$171,298	\$600,370	\$780,000	\$811,200	\$843,648	\$1,169,859	\$1,216,653	\$1,265,319	
52	Sanitary Sewer Manhole Rehabilitation	421454	\$464,046	\$155,186	\$208,000	\$216,320	\$224,973	\$233,972	\$243,331	\$253,064	
53	IBM Pump Station	421521	\$2,389	\$814,799	\$500,000	\$0	\$0	\$0	\$0	\$0	
54	Tier 1 Boulder Creek 2 Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
55	Tier 1 Goose Creek 1/1A Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
56	Tier 1 Goose Creek 3 Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
57	Tier 1 Goose Creek 5 Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$673,494	
58	Tier 2 Boulder Creek 1 Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
59	Tier 2 Boulder Creek 3 Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
60	Tier 2 Boulder Creek 4 Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
61	Tier 2 Goose Creek 4 Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
62	Tier 2 Gunbarrel 1 Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
63	Tier 2 Gunbarrel 2 Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
64	Tier 2 South Boulder Creek 1 Master Plan Project		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
65	<b>Subtotal - Sewer System Rehabilitation</b>		<b>\$637,732</b>	<b>\$1,670,355</b>	<b>\$2,569,600</b>	<b>\$2,402,384</b>	<b>\$2,004,508</b>	<b>\$2,377,153</b>	<b>\$2,497,239</b>	<b>\$2,685,351</b>	
66											
67	<b>Wastewater System Expansion</b>										
68	Annexation Related WW System Expansion	421436	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
69	<b>Subtotal - Wastewater System Expansion</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
70											
71	<b>TOTAL CAPITAL USES OF FUNDS</b>		<b>\$2,245,587</b>	<b>\$4,827,469</b>	<b>\$5,199,776</b>	<b>\$2,972,384</b>	<b>\$3,937,919</b>	<b>\$3,829,068</b>	<b>\$4,927,230</b>	<b>\$24,469,024</b>	

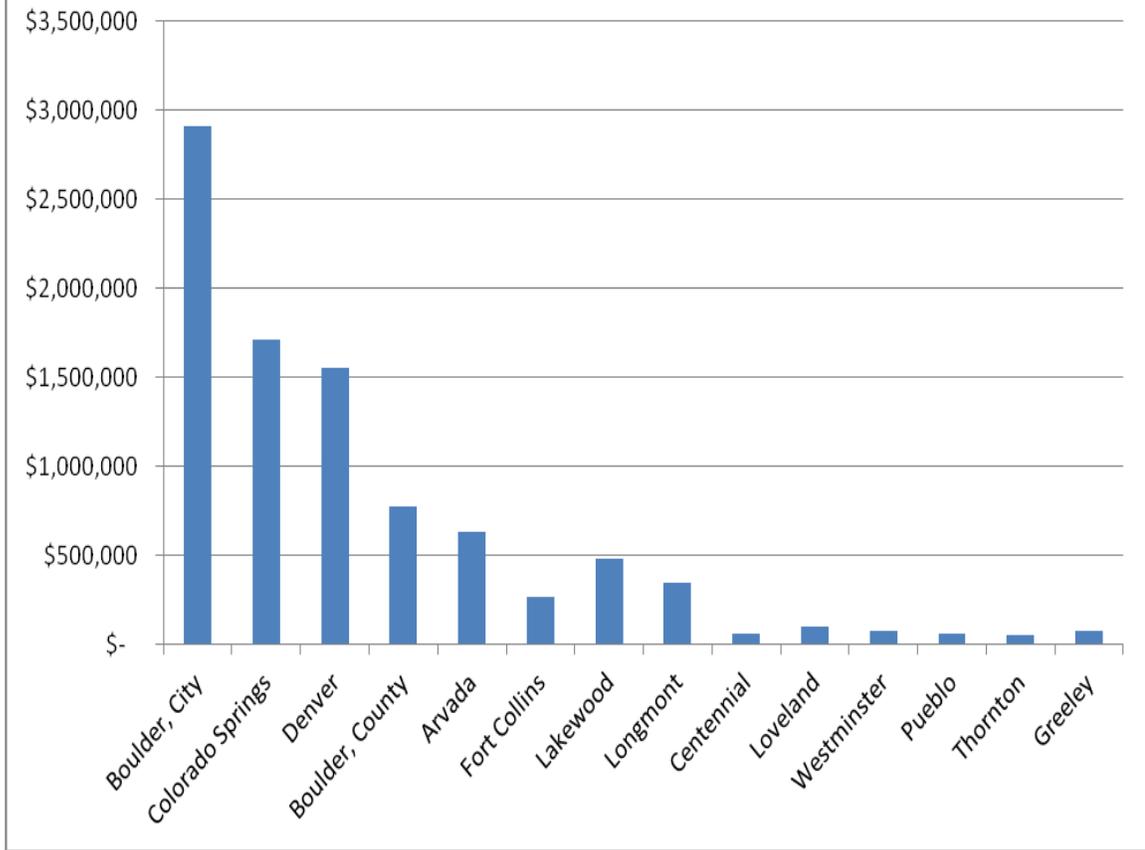
## Attachment E Utility CIPs

	A	B	E	F	G	H	I	J	K	L	M
1	<b>14-Apr-14</b>					<b>CITY OF BOULDER</b>					
2						<b>2014-2019 CAPITAL IMPROVEMENT PROGRAM</b>					
3						<b>STORMWATER AND FLOOD MANAGEMENT UTILITY FUND</b>					
4											
5											
6	<b>Assumed Inflation Rate</b>	<b>4.00%</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
7	<b>PROJECT NAME</b>		<b>ACTUAL</b>	<b>ACTUAL</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>
8											
9	<b>Major Drainageways</b>										
10	Elmer's Twomile Creek	431332	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Goose Creek	431710	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	South Boulder Creek	431202	\$18,917	\$30,945	\$274,539	\$250,000	\$750,000	\$750,000	\$0	\$0	\$0
13	South Boulder Creek - Bond Proceeds		\$0	\$0	\$0	\$0	\$0	\$0	\$10,000,000	\$0	\$0
14	Bond Issuance Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$150,000	\$0	\$0
15	Skunk Canyon Creek		\$0	\$0	\$0	\$0	\$0	\$100,000	\$500,000	\$0	\$0
16	Sunshine Creek		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17	Twomile Canyon Creek		\$0	\$0	\$0	\$0	\$0	\$100,000	\$500,000	\$0	\$0
18	Bluebell Canyon Creek - King's Gulch		\$0	\$0	\$0	\$0	\$0	\$100,000	\$500,000	\$0	\$0
19	Viele Channel		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20	Four Mile Canyon Creek	431729	\$101,333	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000	\$2,500,000
21	Four Mile Canyon Creek - Upland to Violet	431729	\$0	\$0	\$0	\$0	\$500,000	\$500,000	\$500,000	\$250,000	\$0
22	Four Mile Canyon Creek - 19th to 22nd	431730	\$63,167	\$38,533	\$1,331,454	\$0	\$0	\$0	\$0	\$0	\$0
23	Bear Canyon Creek	431010	\$0	\$0	\$0	\$100,000	\$500,000	\$0	\$0	\$0	\$0
24	Gregory Canyon Creek	431702	\$14,965	\$0	\$0	\$100,000	\$500,000	\$0	\$0	\$0	\$0
25	Boulder Creek	431015	\$22,329	\$0	\$100,000	\$500,000	\$2,500,000	\$2,500,000	\$0	\$0	\$0
26	Boulder Slough	431016	\$0	\$6,451	\$788,164	\$0	\$0	\$0	\$0	\$0	\$0
27	Wonderland Creek	431003	\$28	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	Wonderland Creek - Foothills to 30th	431011	\$227,486	\$203,650	\$2,405,420	\$0	\$0	\$0	\$0	\$0	\$0
29	Wonderland Creek at 28th St.	431012	\$0	\$137,793	\$1,027,423	\$0	\$0	\$0	\$0	\$0	\$0
30	Wonderland Creek - Bond Proceeds		\$0	\$0	\$0	\$16,000,000	\$0	\$0	\$0	\$0	\$0
31	Bond Issuance Costs		\$0	\$0	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0
32	Preflood Acquisition	431622	\$346,273	\$7,875	\$2,856,395	\$500,000	\$500,000	\$550,000	\$600,000	\$632,660	\$657,966
33	Greenways Program Transfer	431630	\$81,735	\$24,791	\$613,596	\$97,500	\$97,500	\$97,500	\$97,500	\$97,500	128,303
34	<b>Subtotal - Major Drainageway Improvements</b>		\$876,233	\$450,038	\$9,396,991	\$17,622,500	\$5,347,500	\$4,697,500	\$12,847,500	\$1,480,160	\$3,286,269
35											
36	<b>Miscellaneous</b>										
37	Yards Master Plan Implementation	431039	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0
38	CU Bike/Ped Bridge Replacement I	431054	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0
39	September 2013 Flood Disaster Recovery	431913	\$0	\$123,605	\$10,876,394						
40	Utility Billing Computer System Replacement	431453	\$0	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$65,000
41	<b>Subtotal - Miscellaneous Drainage Improvements</b>		\$0	\$123,605	\$11,126,394	\$50,000	\$0	\$0	\$0	\$0	\$65,000
42											
43	<b>Stormwater Management</b>										
44	Upper Goose Creek	431459	\$0	\$0	\$0	\$175,000	\$750,000	\$750,000	\$750,000	\$1,000,000	\$1,165,547
45	Local Drainage Improvements					\$1,040,000	\$1,081,600	\$1,124,864	\$1,169,859	\$1,216,653	\$1,265,319
46	Stormwater Quality Improvements	431775	\$0	\$143,999	\$119,996	\$156,000	\$162,240	\$168,730	\$175,479	\$182,498	\$189,798
47	Storm Sewer Rehabilitation	431760	\$58,930	\$12,804	\$378,270	\$260,000	\$270,400	\$281,216	\$292,465	\$304,163	\$632,660
48	Transportation Coordination	431780	\$18,454	\$482,567	\$542,913	\$312,000	\$324,480	\$337,459	\$350,958	\$364,996	\$632,660
49	<b>Subtotal - Localized Drainage Improvements</b>		\$77,384	\$639,370	\$1,041,179	\$1,943,000	\$2,588,720	\$2,662,269	\$2,738,760	\$3,068,310	\$3,885,983
50											
51	<b>TOTAL CAPITAL USES OF FUNDS</b>		\$953,617	\$1,213,012	\$21,564,564	\$19,615,500	\$7,936,220	\$7,359,769	\$15,586,260	\$4,548,469	\$7,237,252

**Attachment F**  
**Colorado Flood Insurance Comparison**  
**(Source – Insurance Service Office, April 2014)**



## Flood Insurance Policy Premiums



## Insured Value of Flood Property

