CITY OF BOULDER

WATER RESOURCES ADVISORY BOARD
AGENDA ITEM

MEETING DATE: June 23, 2011

AGENDA TITLE: Final Recommendation regarding the 2012 Utilities Budget (Water, Wastewater and Stormwater/ Flood Management) including the 6-year Capital Improvement Program (CIP), Monthly Utility Rates and the six-year Utility Fund Financials.

PRESENTERS:
Ned Williams, Director of Public Works for Utilities
Bob Harberg, Utilities Planning & Project Management Coordinator
Ken Baird, Utilities Financial Manager
Erin Kintzle, Financial Analyst

EXECUTIVE SUMMARY:

As part of the city's annual budget process, Utilities staff develops a six-year planning budget, this year for the time period of 2012 through 2017. Utilities staff has formulated revenue and expenditure projections for each of the three utility funds through the year 2017. Within the budget process council approves and appropriates funds only for the first year, 2012.

At the April 18 and May 16, 2011 WRAB meetings, staff presented the preliminary 2012 Utilities budget including the six-year capital improvement program. Since that time, the revenue forecasts and capital improvement projects have been updated and incorporated into the fund financials. Forecasted revenues from monthly water and wastewater bills and Plant Investment Fees (PIFs) have been decreased since the April meeting to reflect reduced customer water use in 2009 and 2010 and the reduction in private development activity. Updates to the Capital Improvement Program (CIP) have been made to accommodate decreased revenues. The staff proposed 2012 revenue increases of Water 3%; Wastewater 3%; and Stormwater/Flood Management 3% have not changed. **Attachment A** provides graphs that summarize the 2012 preliminary budget for sources and uses of funds for each utility.

Since the May 16th WRAB meeting, the following changes have been incorporated into the budget:

1. The operating budget (i.e. personnel costs, chemicals, energy, etc.) and financial transfers, as reflected in the city's budget guidelines, have been incorporated into the fund financials.
2. Asset replacement at the 75% level of predicted funding, instead of the 60% level, has been included in the Water and Wastewater Utility, to reflect WRAB's approval on May 16 of the Water Utility Master Plan.
3. Staff has included the revision to the calculations for the monthly wastewater charges, which will reduce the annual revenue in the Wastewater fund by approximately $225,000

per year (more information about this is found elsewhere in this memo).

4. A description of financial options has been developed to solicit WRAB feedback on possible budget reductions, should City Council approve a budget that includes smaller revenue increases than what is currently proposed.

This packet contains information concerning the Preliminary 2012 Utilities Budget and the draft 2012-2017 Utilities CIP. The attached fund financials (**Attachment B –** Water Utility, **Attachment C** – Wastewater Utility and **Attachment D** -Stormwater / Flood Management Utility) reflect actual revenues and expenditures for 2010, updated revenue projections/rate increases for the planning period (this includes the 5-year, phased-in implementation of the adopted Plant Investment Fee in Stormwater/Flood) and updated CIP.

Staff requests a recommendation from the WRAB concerning the 2012 Utilities Budget including the 6-year Capital Improvement Program (CIP) and Monthly Utility Rates. Staff will submit the CIP to the Planning Board on June 21 and Planning Board will meet to discuss the CIP and make a recommendation to City Council on July 21. City Council study sessions are currently scheduled for August 9, 2011 concerning the proposed city-wide 2012-2017 CIP and on August 23 on the preliminary 2012 city-wide budget.

Fiscal Impacts: The following percentage increases in additional revenue from the monthly utility fees are currently being recommended by Utilities staff for 2012 to fund the preliminary Utilities budget and capital improvements program.

Water	3%
Wastewater	3%
Stormwater/ Flood Management	3%

Board Feedback: The preliminary 2012 Utilities budget and 2012-2017 CIP were presented to the WRAB on April 18 and May 16, 2011. A member of the WRAB commented that the water conservation specialist position should move into the Water Resources work group so that demand management might be better integrated with supply issues. Staff responded to several other questions posed by WRAB members. Information on the October 2008 Utilities Peer Review report was sent to WRAB electronically on April 19. Information on the 2010 Water Revenues and Consumption by customer class and block was also sent to WRAB on May 17.

Public Feedback: Board and public input was received at both the April 18 and May 16 meetings. Public input included the suggestion that surplus water should be made available because of the large snowpack and added to the customer's water budget.

Board input and a public hearing is also scheduled for this (June 23, 2011) meeting.

BACKGROUND and ANALYSIS:

The Utilities Division's mission 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 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, system maintenance and water quality operations.

For 2012, uses of funds exceed sources in the water and wastewater funds. This is largely attributed to the 2012 capital improvement program and the difference is paid for from the water and wastewater utility's available fund balance. The fund balance is the amount available after funding all appropriated expenditures and reserve targets.

Priority-based Budgeting

Similar to the 2011 budget process, the city-wide 2012 budget is being developed using the Priority-based Budgeting (PBB) approach that seeks to evaluate and refine the process that was used in the city's previous Business Plan model. The end result is to align the community's ***Results*** (or goals) that the city wishes to achieve with the allocation of resources made throughout the budget process. These ***Result*** categories and their definitions have changed slightly from 2011 and in 2012 are:

- Accessible and Connected Community
- Economically Vital Community
- Environmentally Sustainable Community
- Healthy and Socially Thriving Community
- Safe Community

In addition, all city programs and services have been evaluated relative to ***Basic Program Attributes,*** which are additional characteristics of programs that could increase their overall relevance. The ***Basic Program Attributes*** and definitions have also changed slightly from 2011 to 2012.

Those attributes selected by the city to assist in the 2012 Program Prioritization Scoring process are:

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

PBB results in all city programs have been evaluated, scored and sorted into a "quartile", with Quartile 1 including the highest priority programs and Quartile 4 including the lower priority programs. The results of the PBB approach for all the Utilities' programs are as follows:

Quartile 1

- Collection System Maintenance
- Distribution System Maintenance
- Flood Management
- Industrial Pretreatment
- Planning and Project Management
- Raw Water Facilities Operations
- Wastewater Treatment Plant Operations
- Water Treatment Plants Operations

Quartile 2

- Flood Channel Maintenance
- Stormwater Permit Compliance
- Stormwater Quality Compliance
- Wastewater Quality Compliance
- Water Quality Operations
- Water Resources Operations

Quartile 3

- Billing Services
- Hazardous Materials Management Program
- Hydroelectric Operations
- Marshall Landfill Operations
- Storm Sewer Maintenance
- Water Conservation

Quartile 4

- Meter Operations

Revenues

Forecasted revenues from monthly water and wastewater bills and Plant Investment Fees (PIFs) have been decreased to reflect reduced customer water use in 2009 and 2010 and the reduction in private development activity. The following table summary reflects the changes to the Water, Wastewater, and Stormwater Flood/Management revenues from monthly bills, Plant Investment Fees, and CIP.

	2009	2010	2011	2012	2013	2014
WATER						
Approved / projected revenue increase	8%	0%	3%	3%	3%	3%
Projected Revenue Increase, 6/23 WRAB			**3%**	**3%**	**3%**	**6%**
Revised Budget, Monthly Revenue, 6/23 WRAB			**20,102,106**	**20,753,066**	**21,418,186**	**22,748,455**
Actual Revenue	17,757,975	18,816,163				
Actual Consumption, x1,000 gallons	4,987,003	5,200,999				
Original Budget, PIF Revenue	2,500,000	2,500,000	2,100,000	2,100,000	2,500,000	2,500,000
Revised Budget, PIF Revenue, 6/23 WRAB			**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**
Actual PIF Revenue	2,954,080	1,373,109				
CIP - 6/23 WRAB			**6,071,864**	**3,746,754**	**4,999,235**	**3,063,000**
CIP Actual	9,001,819	8,533,061				
	2009	**2010**	**2011**	**2012**	**2013**	**2014**
WASTEWATER						
Approved / projected revenue increase	5%	0%	3%	3%	3%	3%
Projected Revenue Increase, 6/23 WRAB			**3%**	**3%**	**4%**	**6%**
Revised Budget, Monthly Revenue, 6/23 WRAB			**12,769,757**	**12,953,947**	**13,499,067**	**14,337,657**
Actual Revenue	12,601,245	12,441,290				
Original Budget, PIF Revenue	450,000	600,000	550,000	600,000	600,000	600,000
Revised Budget, PIF Revenue, 6/23 WRAB			**400,000**	**400,000**	**400,000**	**400,000**
Actual PIF Revenue	517,576	342,878				
CIP - 6/23 WRAB			**850,000**	**1,650,000**	**1,110,000**	**918,000**
CIP Actual	951,963	2,717,669				
	2009	**2010**	**2011**	**2012**	**2013**	**2014**
STORMWATER/FLOOD MANAGEMENT						
Approved / projected revenue increase	3%	0%	0%	3%	3%	3%
Projected Revenue Increase, 6/23 WRAB			**0%**	**3%**	**3%**	**3%**
Revised Budget, Monthly Revenue, 6/23 WRAB			**4,976,883**	**5,136,442**	**5,301,116**	**5,471,070**
Actual Revenue	5,041,779	5,032,288				
Original Budget, PIF Revenue	500,000	600,000	600,000	600,000	650,000	650,000
Revised Budget, PIF Revenue, 6/23 WRAB			**500,000**	**500,000**	**550,000**	**550,000**
Actual PIF Revenue	852,072	423,421				
CIP - 6/23 WRAB			**2,550,000**	**2,147,500**	**2,247,500**	**4,114,000**
CIP Actual	5,520,364	2,465,989				

The preliminary 2012 budget reflects the following revenue increases: 3% Water, 3% Wastewater, and 3% Stormwater/Flood Management. These are the same increases that were projected for 2012 during the 2011 budget process.

The following table summarizes the 2011 adopted revenue increase and proposed revenue increase projections for 2012-2014. The proposed 2012 increases are in bold.

	2011	**2012**	2013	2014
Water	3%	**3%**	3%	6%
Wastewater	3%	**3%**	4%	6%
Stormwater/Flood Management	0%	**3%**	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 when there is an established or projected decrease in consumption, in order to generate 3% more revenue from last year's budget, monthly rates may need to increase greater than 3% to generate the needed revenue requirements. A decrease in a customer's consumption, coupled with a rate increase greater than 3% may result in a customer's bill increasing by only 3%.

Asset Replacement Level Change

At the May 16 WRAB meeting, the preliminary 2012 budget included replacing the Water Utility assets at a 60% of the predicted level of funding. WRAB members expressed interest in achieving a replacement schedule that was closer to a 75% value, if possible. Asset replacement at the 75% of the predicted level of funding has been included in the Water Utility Fund Financial and 6-year CIP. This increased funding level does not result in the need to increase the proposed 3% revenue increase in the Water Utility because the information contained in the Budget Guidelines indicate that both the 2012 nonpersonnel (NPE) costs and the personnel expenses are lower than earlier projections.

Changes to Monthly Wastewater Calculation

Utilities staff is proposing to change the wastewater calculation for residential customers. Currently, the wastewater calculation uses the lower of average winter consumption (AWC) or actual water use during the months of April-November, and uses the actual water use volume during the months of Dec-April (which is the AWC period). The proposal is to calculate the monthly wastewater quantity charge using the lower of the AWC or actual water consumed, year round. This methodology was approved for Commercial/Industrial/Institutional (CII) Indoor/Outdoor customers in June 2008 and does require a revision to the Boulder Revised Code.

This change is driven by complaints from customers that during dry winter months, outside watering is necessary to maintain trees and shrubs. Because the current methodology bills wastewater charges on actual water use during the winter months, customers are billed wastewater on the water they use outside for trees and shrubs. By moving to the lower of AWC or actual use all year round, these additional charges are avoided.

An analysis was completed by Red Oak Consulting (**Attachments G and H**) which evaluated

both changing the wastewater methodology for residential customers and also reducing the AWC period to three months (December, January and February) instead of the four months (December, January, February and March) currently used. There were four scenarios evaluated in the analysis:

Scenario 1: The city's existing rate structure.
Scenario 2: Change the methodology to the lower of AWC or actual use for all twelve months of the year (staff recommendation).
Scenario 3: Change the length of the AWC period to three months instead of four months, which would coincide with the irrigation season defined by water budgets.
Scenario 4: Change both the methodology and the length of the AWC period.

Staff recommends Scenario 2, which only changes the wastewater methodology for residential customers to be the lower of the AWC or actual use for all twelve months of the year as is currently used for CII Indoor/Outdoor customers. The analysis estimates this alternative will reduce annual wastewater revenues by 1.87% or $225,208.

Financial Options if Smaller Revenue Increases are Approved
A description of financial options has been developed to solicit WRAB feedback on possible budget reductions, should City Council approve a budget that includes smaller revenue increases than what is currently proposed (2012 is Water 3%; Wastewater 3%; and Stormwater/Flood Management 3%).

To reduce annual revenue in each fund results in the following:

	1%	2%	3%
Water	$200,000	$400,000	$600,000
Wastewater	$125,000	$250,000	$375,000
Stormwater / Flood Mgmt	$ 50,000	$100,000	$150,000

For example, if the Water Utility was approved for a 2% revenue increase in 2012 instead of the proposed 3% increase, the annual Water Utility budget would need to be reduced by $200,000 in 2012.

In considering budget reductions, staff would use the following principles in guiding the recommendations for reductions:

- Utilize results of Priority-based Budgeting by reducing budgets in Quartile 3 and 4 programs more than programs in Quartiles 1 and 2.
- Consider delaying by 1-3 years various maintenance and rehabilitation projects that are important to service delivery, but that could be delayed without significant customer service impacts. Delays may result in higher future capital costs and higher maintenance costs in the short term
- Consider operation and maintenance cost savings by
    - delay hiring for non-essential staff vacancies.

- shut down the 63rd WTP during the Nov-March timeframe.
- operate treatment plants to be in compliance with federal and state regulations, but not to provide water quality that is substantially better than regulatory limits.

- Delay CIP projects that have not been specifically identified in an approved Master Plan.

Staff is requesting WRAB feedback on these principles for budget reductions, if necessary.

Customer Bill Impact

The proposed 2012 revenue increases (3%-3%-3%) would increase a typical residential customer's annual utility bill by approximately $22, or an increase of approximately $1.83 per month. The following table provides a breakdown of the proposed increases by utility.

	Annual Bill 2011 Rates	Annual Bill 2012 Rates	Annual Difference
Water	$383	$394	$11
Wastewater	$247	$255	$ 8
Stormwater / Flood Mgmt	$ 85	$ 88	$ 3
Total	$715	$737	$22

BUDGET SUPPLEMENTAL REQUESTS AND ANTICPATED REVENUE BONDS:

Currently, there are no budget supplemental requests for the 2012 budget. Staff proposes to fund the annual Pharmaceutical Take-Back Program, estimated to cost $7,000 per year, by re-allocating funds in the Water Quality & Environmental Services programs and savings from program efficiencies.

The Utility Billing System annual maintenance fee increase of approximately $2,200 (4% over 2011) is proposed to be funded through re-allocations of savings from the Utility Billing work group or at the fund level. This maintenance fee covers the customer information system and the "MyBUB" internet bill-pay system.

The 2012-2017 utility fund financials also reflect several revenue bond issuances (and associated debt payments) to fund the following capital projects:

Water:

1. Betasso Water Treatment Plant Improvements ($11.6 million in 2016) to fund improvements to the Betasso WTP to assure compliance with federal Safe Drinking Water Act regulations.

Wastewater:

1. No bonds are anticipated in the 2012-2017 planning period.

Stormwater and Flood Management**:**

1. South Boulder Creek Improvements ($4.5 million in 2014) 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 WTP Imp	2016	$ 858,000
	Multiple Projects including Silver Lake Pipeline, Barker Purchase	2019	$2,522,000
	Lakewood Pipeline	2021	$2,065,000
	Betasso WTP Imp. (issue in 2016)	*2036*	*$1,125,000*
Wastewater	Marshall Landfill	2012	$ 170,000
	WWTP Improvements	2025	$3,500,000
	WWTP Improvements	2030	$ 674,000
Storm/Flood	Multiple projects including Goose Creek Improvements	2018	$ 385,000
	South Boulder Creek Imp. (issue in 2014)	*2034*	*$ 437,000*

The water utility also pays a portion of the Northern Colorado Water Conservancy District's debt related to the Windy Gap project. This debt will be retired in 2017 and Boulder's annual debt payment is approximately $1,650,000.

STAFFING LEVELS:

The Utilities Division currently has 154.84 budgeted full –time equivalent (FTE) employees. There are 74.96 that support the water utility; 57.59 in wastewater; 21.49 in stormwater/flood management and .80 in transportation (transportation contributes to storm sewer maintenance). A listing of FTEs and positions by workgroup is included in **Attachment E.** There are no additional FTEs being requested for 2012.

As vacancies occur there is an ongoing effort to analyze and evaluate staffing level efficiencies by the city-wide staffing committee review. As analyses are completed and information about the positions is reviewed, decisions will be made about the need to fill vacant positions (in 2011 or 2012) or whether to eliminate positions.

CIP:

Please see **Attachment F**: Utilities Division 2012-2017 CIP Overview Memo, for more information.

BUDGET SCHEDULE:

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

Milestone	Date
Capital Projects Information Sharing Meeting	April 14, 2011
Preliminary WRAB Budget Discussion	***April 18, 2011***
City Council Study Session on Budget	April 26, 2011
Draft CIP Proposal Submitted	May 6, 2011
WRAB meeting – review updated CIP	***May 16, 2011***
Proposed Budget Submittal to City Manager	June 15, 2011
CIP Submitted to Planning Board	June 21, 2011
WRAB Recommendation on CIP/Budget	***June 23, 2011***
Departmental Budget Review by City Manager	June 16-July 15, 2011
Planning Board CIP Hearing	July 21, 2011
Information Packet memo to Council on proposed changes to all city fees, including utility fees and rates	July 26, 2011
City Council Study Session on CIP	Aug. 9, 2011
City Council Study Session on Budget and Utility Rates	Aug. 23, 2011
City Manager submits Recommended 2012 Budget	Sept. 1, 2011
City Council Study Session on Budget	Sept. 13, 2011
City Council Study Session on Budget (if needed)	Sept. 27, 2011
City Council Consideration/Adoption of Budget	Oct. 4 and 18, 2011

NEXT STEPS:

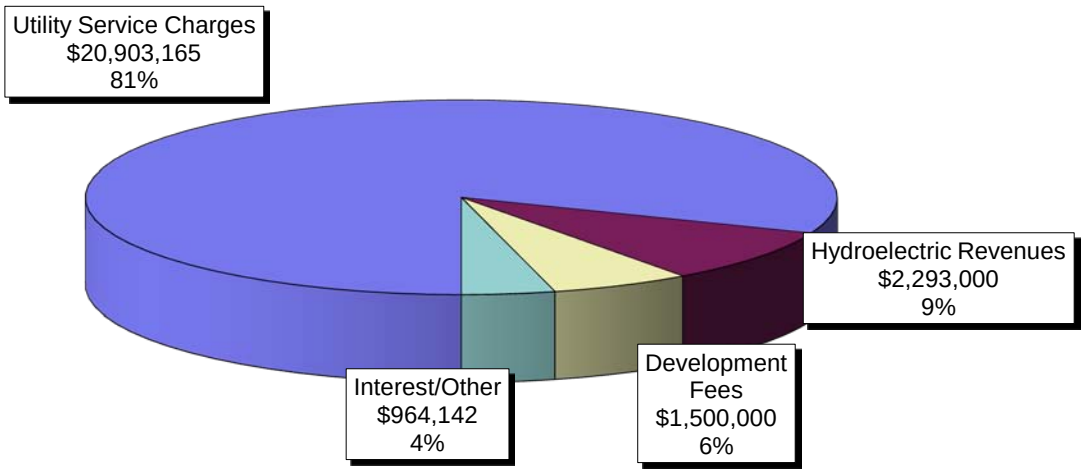
Staff is seeking a recommendation from the WRAB concerning the 2012 Utilities Budget (Water, Wastewater and Stormwater/ Flood Management) including the 6-year Capital Improvement Program (CIP), Monthly Utility Rates.

Attachments:

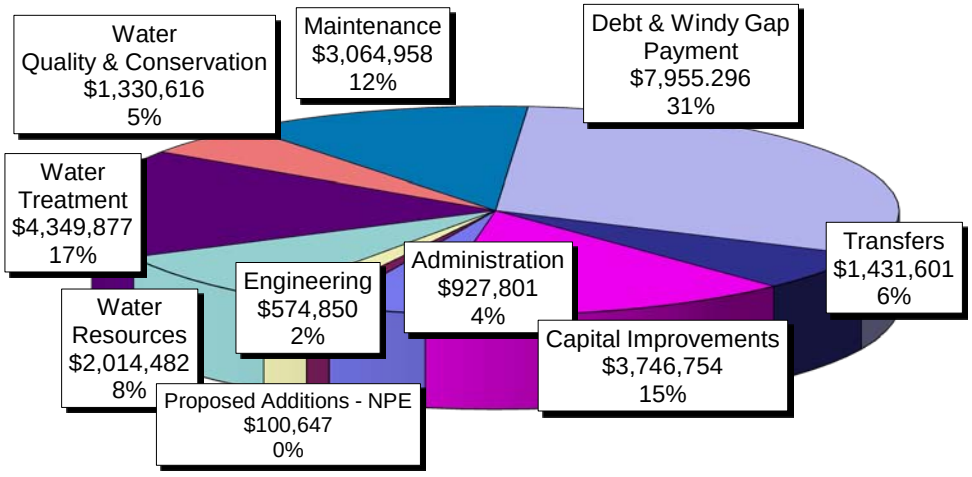
A: 2012 Sources and Uses of Funds Graphs
B: Water - Fund Financial and Capital Improvement Program
C: Wastewater - Fund Financial and Capital Improvement Program
D: Stormwater/ Flood Management - Fund Financial and Capital Improvement Program
E: Staffing Levels by Program
F: Utilities Division 2012-2017 CIP Overview Memo
G: Red Oak Wastewater Structure Analysis Memo
H: Red Oak Wastewater Structure Analysis Tables

WATER UTILITY FUND

2012 Sources of Funds
$25,660,307

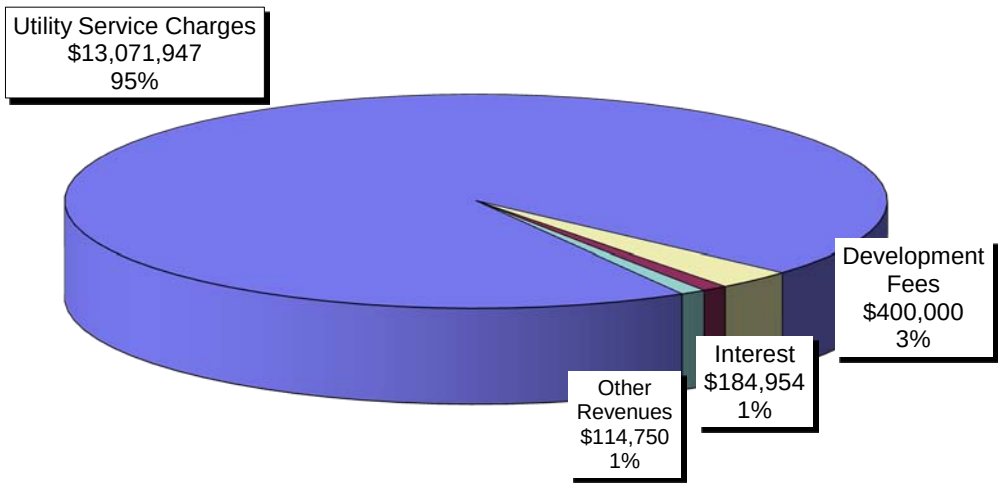


2012 Uses of Funds
$25,496,882

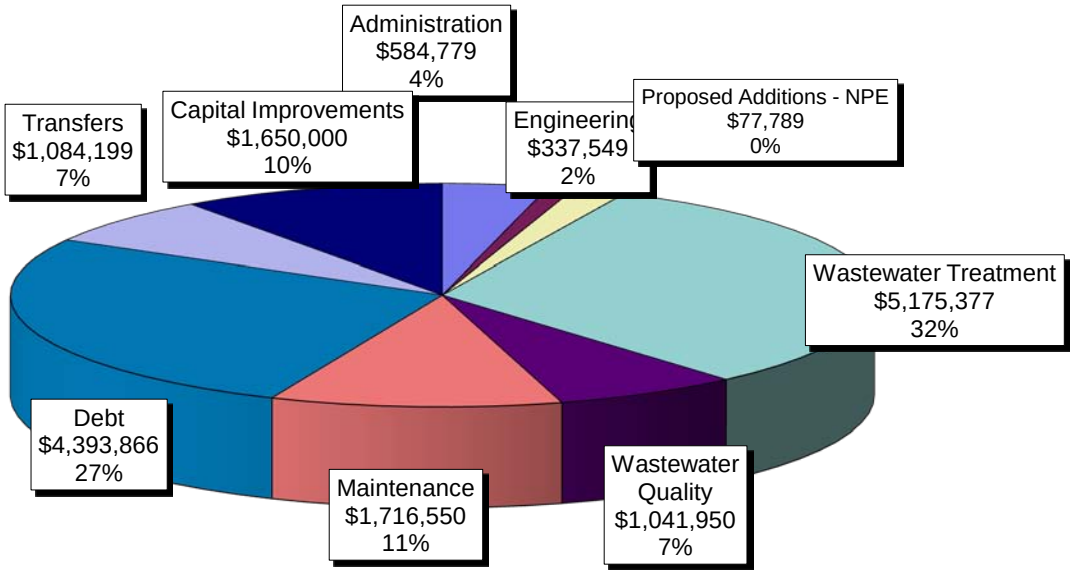


WASTEWATER UTILITY FUND

2012 Sources of Funds
$13,771,651

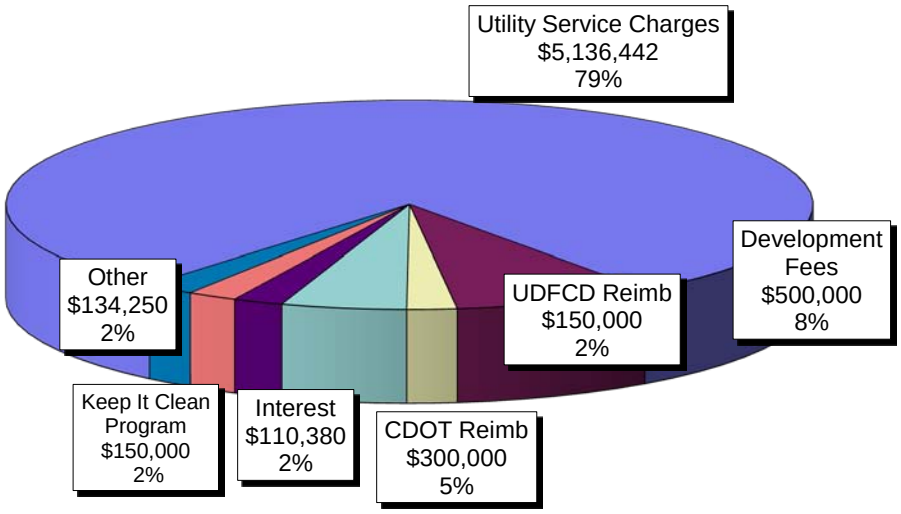


2012 Uses of Funds
$16,062,059

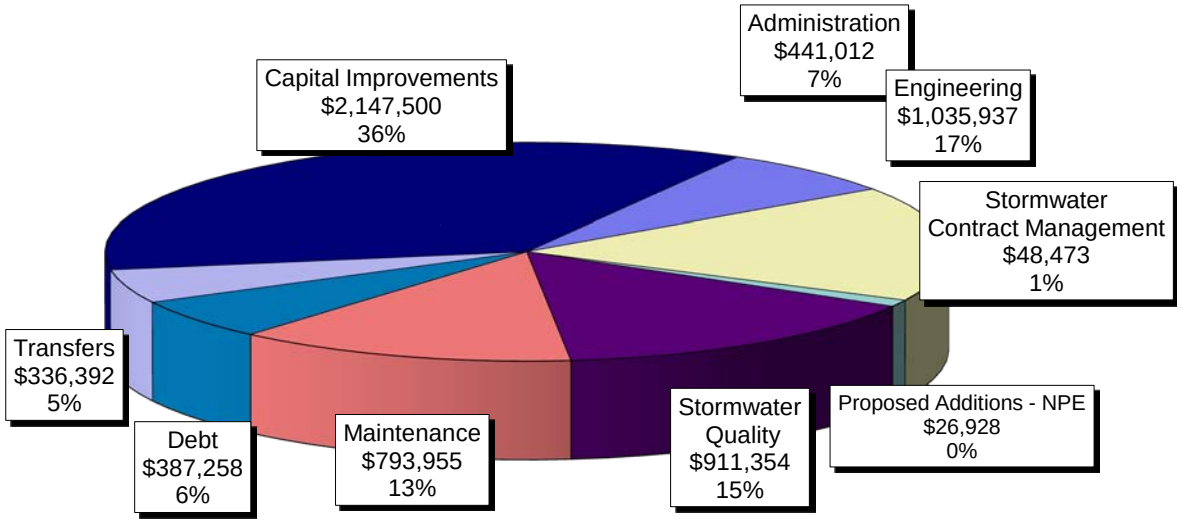


STORMWATER/FLOOD MANAGEMENT UTILITY FUND

2012 Sources of Funds
$6,481,072



2012 Uses of Funds
$6,128,809



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1							**CITY OF BOULDER**											
2							**2012 FUND FINANCIAL**											
3							**WATER UTILITY FUND**											
4																		
5			**2010**		**2011**		**2012**		**2013**		**2014**		**2015**		**2016**		**2017**	
6			**ACTUAL**		**REVISED**		**PROPOSED**		**PROJECTED**		**PROJECTED**		**PROJECTED**		**PROJECTED**		**PROJECTED**	
7	**UNAPPROPRIATED FUND BALANCE**																	
8	Beginning of Year Fund Balance		$42,650,247		$37,649,542		$27,191,770		$27,455,195		$26,893,077		$29,138,604		$30,997,037		$30,481,849	
9																		
10	SOURCES OF FUNDS																	
11	Operating--																	
12	Sale of Water to General Cust		$18,816,163		$19,516,608		$20,148,607		$20,794,356		$21,460,807		$22,793,736		$24,209,467		$25,713,143	
13	Projected Rate Increase		$0	0%	$585,498	3%	$604,458	3%	$623,831	3%	$1,287,648	6%	$1,367,624	6%	$1,452,568	6%	$1,028,526	4%
14	Bulk/Irrigation Water Sales		$171,058		$120,700		$150,100		$138,750		$129,750		$131,750		$131,750		$131,750	
15	Hydroelectric Revenue		$2,464,973		$2,605,000		$2,293,000		$2,711,000		$2,711,000		$2,711,000		$2,711,000		$2,711,000	
16	Miscellaneous Operating Revenues		$118,307		$25,000		$25,000		$25,000		$25,000		$25,000		$25,000		$25,000	
17	TOTAL OPERATING SOURCES OF FUNDS		$21,570,501		$22,852,806		$23,221,166		$24,292,936		$25,614,205		$27,029,110		$28,529,785		$29,609,419	
18																		
19	Non-Operating--																	
20	Plant Investment Fees		$1,373,109		$1,500,000		$1,500,000		$1,500,000		$1,500,000		$1,500,000		$1,500,000		$1,500,000	
21	Connection Charges		$187,051		$150,000		$150,000		$150,000		$150,000		$150,000		$150,000		$150,000	
22	Special Assessments		$83,202		$5,000		$5,000		$5,000		$5,000		$5,000		$5,000		$5,000	
23	State & Federal Grants		$273,118		$906,882		$0		$0		$0		$0		$0		$0	
24	Interest on Investments		$982,107		$299,253		$475,856		$549,104		$672,327		$874,158		$929,911		$914,455	
25	Rent, assessments and other misc revenues		$51,050		$18,500		$19,000		$19,500		$20,000		$20,500		$20,500		$20,500	
26	Sale of Real Estate - Yards Masterplan		$0		$0		$196,500		$0		$0		$0		$0		$0	
27	Transfer from General Fund - Fire Training Center		$92,785		$92,785		$92,785		$92,785		$92,785		$92,785		$92,785		$92,785	
28	Projected Bond Proceeds		$0		$19,171,728		$0		$0		$0		$0		$12,910,000		$0	
29	TOTAL NON-OPERATING SOURCES OF FUNDS		$3,042,422		$22,144,148		$2,439,141		$2,316,389		$2,440,112		$2,642,443		$15,608,196		$2,682,740	
30																		
31	**TOTAL SOURCES OF FUNDS**		**$24,612,923**		**$44,996,954**		**$25,660,307**		**$26,609,325**		**$28,054,317**		**$29,671,553**		**$44,137,981**		**$32,292,159**	
32																		
33	USES OF FUNDS																	
34	Operating Expenditures--																	
35	Administration		$738,079		$836,279		$827,801		$852,635		$878,214		$904,561		$931,697		$959,648	
36	Planning and Project Management		$486,238		$575,925		$574,850		$592,096		$609,858		$628,154		$646,999		$666,409	
37	Water Resources and Hydroelectric Operations		$1,932,434		$2,004,557		$2,014,482		$2,074,916		$2,137,164		$2,201,279		$2,267,317		$2,335,337	
38	Water Treatment		$4,089,090		$4,293,920		$4,349,877		$4,480,373		$4,614,785		$4,753,228		$4,895,825		$5,042,700	
39	Water Quality & Environmental Svcs		$782,365		$873,887		$894,284		$921,113		$948,746		$977,208		$1,006,525		$1,036,720	
40	Water Conservation		$263,543		$443,829		$436,332		$449,422		$462,905		$476,792		$491,096		$505,828	
41	System Maintenance		$2,760,964		$3,113,787		$3,064,958		$3,156,907		$3,251,614		$3,349,162		$3,449,637		$3,553,126	
42	Windy Gap Payment		$2,433,538		$2,553,539		$2,541,910		$2,556,836		$2,596,250		$2,714,004		$2,776,959		$2,341,075	
44	**Proposed Additions - Priority Based NPE Increase**		**$0**		**$0**		**$100,647**		**$103,666**		**$106,776**		**$109,980**		**$113,279**		**$116,677**	
45	Sick/Vacation Accrual		($29,562)		$100,000		$100,000		$103,000		$106,090		$109,273		$112,551		$115,927	
46	TOTAL OPERATING USES OF FUNDS		$13,456,689		$14,795,723		$14,905,141		$15,290,964		$15,712,402		$16,223,640		$16,691,884		$16,673,448	
47																		
48	Debt--																	
49	BRWTP 1996 Revenue Bond; Refunding in 2005		$844,505		$848,752		$854,690		$854,438		$856,594		$857,709		$858,531		$0	
50	Refunding of the 1999 and 2000 Revenue Bonds		$3,253,354		$2,507,921		$2,506,088		$2,511,421		$2,523,521		$2,522,054		$2,517,388		$2,524,233	
51	Lakewood 2001 Rev Bond; Refunded in 2011		$2,174,452		$21,340,435		$2,052,608		$2,057,650		$2,057,000		$2,065,733		$2,065,950		$2,065,333	
52	Arbitrage Payment		$0		$0		$0		$0		$0		$0		$0		$0	
53	Projected Bond-Betasso WTP Improvements		$0		$0		$0		$0		$0		$0		$1,125,410		$1,125,410	
59	TOTAL DEBT SERVICE		$6,272,311		$24,697,108		$5,413,386		$5,423,509		$5,437,115		$5,445,496		$6,567,279		$5,714,976	
60																		
61	Transfers Out--																	
62	Cost Allocation		$1,118,145		$1,153,926		$1,231,239		$1,354,363		$1,489,799		$1,638,779		$1,802,657		$1,982,923	
63	Planning & Development Services		$188,860		$194,526		$200,362		$206,373		$212,564		$218,941		$225,509		$232,274	
64	Other Transfers		$15,000		$0		$0		$0		$0		$0		$0		$0	
65	TOTAL TRANSFERS OUT		$1,322,005		$1,348,452		$1,431,601		$1,560,736		$1,702,363		$1,857,720		$2,028,166		$2,215,197	
66																		
67	Capital Improvements Program--																	
68	TOTAL CAPITAL USES OF FUNDS		$8,533,061		$6,071,864		$3,746,754		$4,999,235		$3,063,000		$4,395,537		$7,699,874		$7,963,253	
69																		
70	PROJECTED BOND - BETASSO WTP IMP		$0		$0		$0		$0		$0		$0		$11,653,516		$0	
76	PROJECTED BONDS - ISSUANCE COSTS		$0		$0		$0		$0		$0		$0		$125,000		$0	
77	ENCUMBRANCES, CARRYOVERS & MID-YR ATB's		$0		$8,641,579		$0		$0		$0		$0		$0		$0	
78																		
79	**TOTAL USES OF FUNDS**		**$29,584,066**		**$55,554,726**		**$25,496,882**		**$27,274,444**		**$25,914,880**		**$27,922,394**		**$44,765,720**		**$32,566,874**	
80																		
81	Sick/Vacation Accrual Adjustment		($29,562)		$100,000		$100,000		$103,000		$106,090		$109,273		$112,551		$115,927	
82																		
83	**FUND BALANCE - END OF YEAR**		**$37,649,542**		**$27,191,770**		**$27,455,195**		**$26,893,077**		**$29,138,604**		**$30,997,037**		**$30,481,849**		**$30,323,062**	
84																		
85	Designated Reserves -																	
86	Bond Reserves		$3,068,830		$3,068,830		$3,068,830		$3,068,830		$3,068,830		$3,068,830		$4,194,240		$3,340,873	
87	Lakewood Pipeline Remediation Reserve		$12,813,756		$13,203,498		$14,071,087		$14,965,063		$15,624,845		$16,566,081		$17,535,945		$18,535,309	
88	Lakewood/USFS Damage Claims Reserve		$100,000		$100,000		$100,000		$0		$0		$0		$0		$0	
90	Vacation/Sick/Bonus Liability		$614,435		$632,868		$651,854		$671,410		$691,552		$712,299		$733,668		$755,678	
91	Pay Period 27 - 2013 Reserve		$185,947		$236,947		$287,947		$338,947		$389,947		$440,947		$491,947		$542,947	
92	TOTAL RESERVES		$16,782,968		$17,242,143		$18,179,718		$19,044,250		$19,775,174		$20,788,156		$22,955,800		$23,174,806	
93																		
94	**SURPLUS/(DEFICIT) vs. DESIGNATED RESERVES**		**$20,866,574**		**$9,949,627**		**$9,275,477**		**$7,848,826**		**$9,363,430**		**$10,208,880**		**$7,526,049**		**$7,148,255**	
95	**OPERATING RESERVE (Goal: 25% of Operating) ***		**$3,694,674**		**$4,036,044**		**$4,084,185**		**$4,212,925**		**$4,353,691**		**$4,520,340**		**$4,680,013**		**$4,722,161**	
96	**CAPITAL RESERVE (Goal: $2,000,000)**		**$2,000,000**		**$2,000,000**		**$2,000,000**		**$2,000,000**		**$2,000,000**		**$2,000,000**		**$2,000,000**		**$2,000,000**	
97	**SURPLUS/(DEFICIT) vs. ALL RESERVES**		**$15,171,901**		**$3,913,583**		**$3,191,292**		**$1,635,902**		**$3,009,739**		**$3,688,540**		**$846,037**		**$426,094**	
98																		
103	* 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.																	

	A	B	C	D	E	F	G	H	I	J	K
1				CITY OF BOULDER							
2				2012-2017 CAPITAL IMPROVEMENT PROGRAM							
3				WATER UTILITY FUND							
4											
5											
6	**Assumed Inflation Rate**	**3.00%**	**ESTIMATED**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
7	**PROJECT NAME**		**2010 COST**	**ACTUAL**	**REVISED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**
8											
9	**Treated Water Pressure Reducing and Hydroelectric Facilities**										
10	Kohler Hydro/PRV Station	411376		$0	$0	$0	$50,000	$0	$0	$0	$0
11	Maxwell Hydro/PRV Station	411342		$0	$0	$0	$50,000	$0	$0	$0	$0
12	Orodell Hydro/PRV Station	411331		$0	$0	$0	$0	$0	$0	$0	$0
13	Sunshine Hydro/PRV Station	411347	$232,400	$0	$0	$0	$0	$0	$0	$0	$261,568
14	101 Pearl Street Hydro/PRV Station		$200,000	$0	$0	$0	$0	$0	$0	$0	$0
15	**Subtotal - Treated Water PRV and Hydro**			$0	$0	$0	$100,000	$0	$0	$0	$261,568
16											
17	**Water Treatment Facilities**										
18	Betasso WTP	411947		$74,789	$325,211	$149,000	$200,000	$100,000	$1,165,352	$3,500,030	$0
19	Betasso WTP - Bond Proceeds			$0	$0	$0	$0	$0	$0	$11,653,516	$0
20	Bond Issuance Costs			$0	$0	$0	$0	$0	$0	$125,000	$0
21	Boulder Reservoir WTP	411652		$2,243,791	$47,678	$80,000	$116,000	$82,000	$0	$164,000	$0
22	Boulder Res WTP - Bond Proceeds			$0	$0	$0	$0	$0	$0	$0	$0
23	**Subtotal - Water Treatment Facilities**			$2,318,580	$372,889	$229,000	$316,000	$182,000	$1,165,352	$15,442,546	$0
24											
25	**Treated Water Pump Stations**										
26	Cherryvale Pump Station	411010		$322,532	$0	$0	$0	$0	$0	$0	$0
27	Boulder Reservoir WTP High Service Pump Stat	411011		$0	$0	$50,000	$112,800	$0	$0	$0	$0
28	Iris Pump Stations	411012		$61,152	$0	$0	$0	$0	$0	$0	$0
29	**Subtotal - Treated Water Pump Stations**			$383,684	$0	$50,000	$112,800	$0	$0	$0	$0
30											
31	**Treated Water Storage Tanks**										
32	Gunbarrel Storage Tank	411670		$32,136	$15,950	$0	$265,798	$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	$0	$0	$0	$0	$0	$0
36	Kohler Storage Tank	411671	$920,000	$0	$0	$0	$0	$0	$100,531	$1,005,309	$0
37	Chautauqua Storage Tank	411672	$785,000	$0	$870,779	$0	$0	$0	$0	$0	$0
38	Betasso Storage Tank		$250,000	$0	$0	$0	$0	$0	$0	$0	$281,377
39	Boulder Reservoir Storage Tank			$0	$0	$0	$0	$0	$0	$0	$0
40	**Subtotal - Treated Water Storage Tanks**			$32,136	$886,729	$0	$265,798	$0	$100,531	$1,005,309	$281,377
41											
42	**Treated Water Distribution System**										
43	Zone Isolation Valves	411390		$0	$0	$0	$0	$0	$0	$0	$0
44	Cathodic Protection	411387		$18,569	$113,501	$0	$0	$0	$0	$0	$0
45	Waterline Replacement	411389		$3,074,412	$2,458,289	$2,100,000	$2,100,000	$2,163,000	$2,227,890	$2,294,727	$2,363,569
46	**Subtotal - Treated Water Distribution System**			$3,092,981	$2,571,790	$2,100,000	$2,100,000	$2,163,000	$2,227,890	$2,294,727	$2,363,569
47											
48	**Treated Water Transmission System**										
49	Sunshine Transmission Pipe	411006		$0	$0	$0	$800,000	$0	$0	$0	$0
50	Boulder Canyon - Orodell to Fourmile Pipe	411007		$0	$500,000	$0	$0	$0	$0	$0	$0
51	Mountain Transmission Pipes	411007		$0	$0	$0	$0	$0	$0	$0	$0
52	Zone 1 Transmission Pipes	411002		$0	$0	$0	$0	$0	$0	$0	$0
53	Zone 2 Transmission Pipes	411004		$0	$0	$0	$0	$0	$0	$0	$0
54	Zone 3 Transmission Pipes	411005		$0	$0	$0	$0	$0	$0	$0	$0
55	**Subtotal - Treated Water Transmission System**			$0	$500,000	$0	$800,000	$0	$0	$0	$0
56											
57	**Source Water Transmission System**										
58	Lakewood Pipeline	411780		$216,490	$0	$0	$0	$257,500	$0	$0	$0
59	Silver Lake Pipeline	411640		$0	$0	$0	$0	$0	$0	$0	$0
60	Source Water Transmission Pipe Inspections	411775		$0	$0	$80,000	$0	$0	$0	$0	$0
61	**Subtotal - Source Water Transmission System**			$216,490	$0	$80,000	$0	$257,500	$0	$0	$0
62											
63	**Barker Water System**										
64	Barker Gravity Pipeline Repair	411106	$20,000,000	$107,639	$733,639	$350,000	$350,000	$360,500	$371,315	$382,454	$589,961
65	Barker-Kossler Penstock Repair	411107	$100,000	$0	$0	$175,000	$0	$0	$0	$0	$112,551
66	Barker Dam Outlet	411109		$0	$0	$0	$0	$0	$0	$0	$736,081
67	Barker Dam Outlet - Bond Proceeds		$7,055,000	$0	$0	$0	$0	$0	$0	$0	$0
68	Barker Dam and Reservoir	411110	$350,000	$0	$120,000	$0	$0	$0	$371,315	$0	$0
69	Barker Hydro System Integration	411111		$16	$0	$0	$0	$0	$0	$0	$0
70	Barker Relicensing	411112		$47,826	$570,000	$0	$0	$0	$0	$253,354	$0
71	Barker Instream Flow Release	411114		$8,645	$139,359	$0	$0	$0	$0	$0	$0
72	Betasso Penstock	411940		$253,465	$0	$0	$0	$0	$0	$0	$0
73	Kossler Reservoir	411119		$70,626	$864,712	$0	$300,000	$0	$0	$0	$0
74	**Subtotal - Barker Water System**			$488,217	$2,427,710	$525,000	$650,000	$360,500	$742,630	$635,808	$1,438,593
75											
76	**Raw Water Storage Reservoirs**										
77	Albion Dam		$3,075,000	$0	$0	$0	$0	$0	$79,568	$0	$0
78	Silver Lake Dam			$0	$0	$0	$0	$0	$0	$0	$0
79	Island Lake Dam	411626		$13,002	$148,892	$0	$0	$0	$0	$0	$0
80	Green Lake 1 Dam			$0	$0	$0	$0	$0	$0	$0	$0
81	Green Lake 2 Dam	411627	$3,875,000	$0	$0	$0	$75,000	$0	$0	$0	$0
82	Green Lake 3 Dam			$0	$0	$0	$0	$0	$0	$0	$0
83	Goose Lake Dam	411612		$0	$0	$0	$0	$0	$0	$0	$0
84	Boulder Reservoir		$90,000	$0	$0	$0	$0	$0	$0	$0	$0
85	Lakewood Reservoir	411981	$102,500	$0	$0	$0	$0	$0	$0	$0	$0
86	Skyscraper Dam		125,000	$0	$0	$0	$0	$0	$0	$0	$0
87	Wittemyer Ponds		4,000,000	$0	$0	$0	$0	$0	$0	$0	$0
88	**Subtotal - Raw Water Storage Reservoirs**			$13,002	$148,892	$0	$75,000	$0	$79,568	$0	$0
89											
90	**Other Raw Water Facilities**										
91	Farmer's Ditch	411550		$0	$0	$0	$0	$0	$0	$0	$0
92	Anderson Ditch	411883		$0	$0	$0	$0	$0	$0	$0	$0
93	Watershed Improvements	411770	$440,500	$0	$290,500	$0	$0	$0	$79,568	$0	$0
94	Nederland WWTP	411565		$0	$370,000	$0	$0	$0	$0	$0	$0
95	Instream Flow Structures and Gaging	411549		$0	$50,000	$0	$0	$0	$0	$0	$0
96	Como Creek Diversion Structure	411548		$0	$0	$0	$0	$0	$0	$0	$0
97	Lakewood Diversion Structure			$0	$0	$0	$0	$0	$0	$0	$0
98	Silver Lake Diversion Structure			$0	$0	$0	$0	$0	$0	$0	$0
99	NCWCD Conveyance - Boulder Feeder Canal	411546		$0	$92,468	$0	$0	$0	$0	$0	$0
100	NCWCD Conveyance - Carter Lake Pipeline	411547		$3,531	$989,455	$0	$0	$0	$0	$0	$2,608,367
101	NCWCD Conveyance - Bond Proceeds		$25,000,000	$0	$0	$0	$0	$0	$0	$0	$0
102	**Subtotal - Other Raw Water Facilities**			$3,531	$1,792,423	$0	$0	$0	$79,568	$0	$2,608,367
103											
104	**Source Water Pressure Reducing, Pumping and Hydroelectric**										
105	Lakewood Hydroelectric/PRV	411801		$0	$0	$0	$0	$100,000	$0	$0	$0
106	Silver Lake Hydroelectric/PRV	411970		$0	$0	$100,000	$0	$0	$0	$0	$0
107	Boulder Reservoir Intake and Pumping	411655		$29,819	$197,583	$0	$0	$0	$0	$0	$0
108	Betasso Hydro PRV Station	411974		$215,286	$28,967	$0	$0	$0	$0	$100,000	$0
109	Barker Dam Hydro			$0	$0	$0	$0	$0	$0	$0	$344,304
110	Barker Dam Hydro - Bond Proceeds		$3,300,000	$0	$0	$0	$0	$0	$0	$0	$0
111	Boulder Canyon Hydro	411975		$262,960	$3,711,240	$0	$0	$0	$0	$0	$0
112	Boulder Canyon Hydro - Grant	411976		$273,118	$907,681	$0	$0	$0	$0	$0	$0
113	Carter Lake Hydro			$0	$0	$0	$0	$0	$0	$0	$0
114	Carter Lake Hydro - Bond Proceeds			$0	$0	$0	$0	$0	$0	$0	$0
115	Source Water Pressure Reducing, Pumping and Hydroelectric Facility Re			$0	$0	$0	$0	$0	$0	$0	$165,475
116	**Subtotal - Source Water PRV, Pumping and Hydro**			$781,183	$4,845,471	$100,000	$0	$100,000	$0	$100,000	$509,780
117											
118	**Water Distribution System Expansion**										
119	Annexation Related Water System Expansion	411433		$375,474	$149,155	$0	$0	$0	$0	$0	$0
120	**Subtotal - Water Distribution System Expansion**			$375,474	$149,155	$0	$0	$0	$0	$0	$0
121											
122	**Water System Monitoring and Metering**										
123	Automated Meter Reading	411454	$500,000	$530,450	$546,364	$562,754	$579,637	$0	$0	$0	$0
124	Water System Security Upgrades	411440		$93,200	$107,315	$100,000	$0	$0	$0	$0	$0
125	Distribution System Water Quality	411425		$200,696	$148,646	$0	$0	$0	$0	$0	$0
126	Data Communications System	411435		$0	$0	$0	$0	$0	$0	$0	$0
127	Yards Master Plan Implementation	411039		$3,104	$100,000	$0	$0	$0	$0	$0	$0
128	Utility Billing Computer System Replacement	411453		$333	$28,771	$0	$0	$0	$0	$0	$500,000
129	**Subtotal - Water System Monitoring and Metering**			$827,783	$931,096	$662,754	$579,637	$0	$0	$0	$500,000
130											
131	**TOTAL CAPITAL USES OF FUNDS**			$8,533,061	$14,626,155	$3,746,754	$4,999,235	$3,063,000	$4,395,537	$19,478,390	$7,963,253

		2010		2011		2012		2013		2014		2015		2016		2017	
		ACTUAL		REVISED		PROPOSED		PROJECTED		PROJECTED		PROJECTED		PROJECTED		PROJECTED	
UNAPPROPRIATED FUND BALANCE																	
Beginning of Year Fund Balance		$15,082,762		$23,529,132		$10,568,794		$8,353,386		$6,921,860		$6,154,291		$5,991,435		$5,529,102	
SOURCES OF FUNDS																	
Operating--																	
Sewer Charges to General Customers		$12,441,290		$12,397,822		$12,795,296		$13,205,513		$13,761,201		$14,616,047		$15,523,996		$16,488,347	
Projected Rate Increase		$0	0%	$371,935	3%	$383,859	3%	$528,221	4%	$825,672	6%	$876,963	6%	$931,440	6%	$989,301	6%
Proposed Change in Billing Methodology		$0		$0		($225,208)		($234,667)		($249,216)		($264,169)		($280,019)		($296,820)	
Surcharge/ Pretreatment Fees		$184,697		$118,000		$118,000		$118,000		$118,000		$118,000		$118,000		$118,000	
TOTAL OPERATING SOURCES OF FUNDS		$12,625,987		$12,887,757		$13,071,947		$13,617,067		$14,455,657		$15,346,841		$16,293,417		$17,298,827	
Non-Operating--																	
Plant Investment Fees		$342,878		$400,000		$400,000		$400,000		$400,000		$400,000		$400,000		$400,000	
Connection Charges		$8,722		$10,000		$10,000		$10,000		$10,000		$10,000		$10,000		$10,000	
Special Assessments		$153,366		$5,000		$5,000		$5,000		$5,000		$5,000		$5,000		$5,000	
Federal & State Grants		$0		$0		$0		$0		$0		$0		$0		$0	
Interest on Investments		$425,709		$115,645		$184,954		$167,068		$173,046		$184,629		$179,743		$165,873	
Rent and other miscellaneous revenue		$54,050		$29,500		$1,500		$1,500		$1,500		$1,500		$1,500		$1,500	
Sale of Real Estate - Yards Masterplan		$0		$0		$98,250		$0		$0		$0		$0		$0	
Bond Proceeds		$10,210,688		$0		$0		$0		$0		$0		$0		$0	
TOTAL NON-OPERATING SOURCES OF FUNDS		$11,195,413		$560,145		$699,704		$583,568		$589,546		$601,129		$596,243		$582,373	
TOTAL SOURCES OF FUNDS		**$23,821,400**		**$13,447,902**		**$13,771,651**		**$14,200,635**		**$15,045,204**		**$15,947,970**		**$16,889,660**		**$17,881,200**	
USES OF FUNDS																	
Operating Expenditures--																	
Administration		$500,557		$508,715		$509,779		$525,072		$540,825		$557,049		$573,761		$590,974	
Planning and Project Management		$426,804		$339,191		$337,549		$347,675		$358,106		$368,849		$379,914		$391,312	
Wastewater Quality & Environmental Svcs		$914,396		$1,021,258		$1,041,950		$1,073,209		$1,105,405		$1,138,567		$1,172,724		$1,207,906	
System Maintenance		$1,388,685		$1,687,414		$1,716,550		$1,768,047		$1,821,088		$1,875,721		$1,931,992		$1,989,952	
Wastewater Treatment		$4,516,871		$5,185,074		$5,175,377		$5,330,638		$5,490,557		$5,655,274		$5,824,932		$5,999,680	
Proposed Additions - Priority Based NPE Increase		**$0**		**$0**		**$77,789**		**$80,123**		**$82,526**		**$85,002**		**$87,552**		**$90,179**	
Sick/Vacation Accrual		($51,573)		$75,000		$75,000		$77,250		$79,568		$81,955		$84,413		$86,946	
TOTAL OPERATING USES OF FUNDS		$7,695,740		$8,816,652		$8,933,994		$9,202,014		$9,478,074		$9,762,416		$10,055,289		$10,356,948	
Debt--																	
WWTP Improvements 2005 Revenue Bond		$3,550,748		$3,550,367		$3,546,533		$3,544,883		$3,543,496		$3,519,913		$3,502,288		$3,480,163	
2005 Refunding of the 1992 Marshall Landfill Bond		$165,456		$165,568		$175,454		$0		$0		$0		$0		$0	
WWTP UV, Digester, Headworks Imp 2010 Rev Bond		$62,616		$674,688		$671,879		$673,963		$670,854		$672,638		$673,863		$670,938	
TOTAL DEBT SERVICE		$3,778,820		$4,390,623		$4,393,866		$4,218,846		$4,214,350		$4,192,551		$4,176,151		$4,151,101	
Transfers Out--																	
Cost Allocation		$802,099		$827,766		$883,227		$971,550		$1,068,705		$1,175,576		$1,293,134		$1,422,447	
Planning & Development Services		$189,435		$195,118		$200,972		$207,001		$213,211		$219,607		$226,195		$232,981	
TOTAL TRANSFERS OUT		$991,534		$1,022,884		$1,084,199		$1,178,551		$1,281,916		$1,395,183		$1,519,329		$1,655,428	
Capital Improvements Program--																	
TOTAL CAPITAL USES OF FUNDS		$2,717,669		$850,000		$1,650,000		$1,110,000		$918,000		$842,630		$1,685,636		$1,869,132	
2010 BOND-UV, DIGESTER, HEADWORKS IMP		$0		$9,400,855		$0		$0		$0		$0		$0		$0	
PROJECTED BOND-WWTP IMPROVEMENTS		$0		$0		$0		$0		$0		$0		$0		$0	
BOND - ISSUANCE COSTS		$139,694		$0		$0		$0		$0		$0		$0		$0	
CARRYOVERS, ENCUMBRANCES & MID-YR ATBs		$0		$2,002,226		$0		$0		$0		$0		$0		$0	
TOTAL USES OF FUNDS		**$15,323,457**		**$26,483,240**		**$16,062,059**		**$15,709,411**		**$15,892,340**		**$16,192,780**		**$17,436,405**		**$18,032,608**	
Sick/Vacation Accrual Adjustment		($51,573)		$75,000		$75,000		$77,250		$79,568		$81,955		$84,413		$86,946	
FUND BALANCE - END OF YEAR		**$23,529,132**		**$10,568,794**		**$8,353,386**		**$6,921,860**		**$6,154,291**		**$5,991,435**		**$5,529,102**		**$5,464,640**	
Designated Reserves -																	
Bond Reserves		$840,389		$840,389		$840,389		$670,139		$670,139		$670,139		$670,139		$670,139	
Sick/Vacation/Bonus Liability		$560,686		$577,507		$594,832		$612,677		$631,057		$649,989		$669,488		$689,573	
Pay Period 27 - 2013 Reserve		$145,891		$191,891		$237,891		$283,891		$329,891		$365,891		$401,891		$437,891	
TOTAL RESERVES		$1,546,966		$1,609,787		$1,673,112		$1,566,707		$1,631,087		$1,686,019		$1,741,518		$1,797,603	
SURPLUS/(DEFICIT) vs. DESIGNATED RESERVES		**$21,982,166**		**$8,959,007**		**$6,680,274**		**$5,355,153**		**$4,523,204**		**$4,305,416**		**$3,787,584**		**$3,667,037**	
OPERATING RESERVE (Goal:25% of Operating) *		**$2,171,819**		**$2,459,884**		**$2,504,548**		**$2,595,141**		**$2,689,998**		**$2,789,400**		**$2,893,654**		**$3,003,094**	
CAPITAL RESERVE (Goal: $500,000)		**$500,000**		**$500,000**		**$500,000**		**$500,000**		**$500,000**		**$500,000**		**$500,000**		**$500,000**	
SURPLUS/(DEFICIT) vs. ALL RESERVES		**$19,310,348**		**$5,999,123**		**$3,675,726**		**$2,260,012**		**$1,333,206**		**$1,016,016**		**$393,929**		**$163,943**	
* 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
2012 FUND FINANCIAL
WASTEWATER UTILITY FUND

	A	B	C	D	E	F	G	H	I	J	K
1					CITY OF BOULDER						
2					2012 - 2017 CAPITAL IMPROVEMENT PROGRAM						
3					WASTEWATER UTILITY FUND						
4											
5											
6	**Assumed Inflation Rate**	**3.00%**	**ESTIMATED**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
7	**PROJECT NAME**		**2008 COST**	**ACTUAL**	**REVISED**	**RECOMMENDE**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**
8											
9	**Wastewater Treatment**										
10	WWTP Pumps	421339		$0	$150,000	$0	$150,000	$0	$150,000	$0	$0
11	WWTP Permit Improvements	421617		$41,497	$75,068	$200,000	$200,000	$100,000	$106,090	$1,000,000	$0
12	WWTP Permit Improvements - Proj. Bond	**425xxx**	$10,000,000	$0	$0	$0	$0	$0	$0	$0	$0
13	WWTP Laboratory			$0	$0	$50,000	$0	$0	$0	$0	$0
14	Lower Boulder Creek Enhancement	421661		$0	$0	$0	$0	$0	$0	$0	$0
15	WWTP Headworks	421003		$10,865	$238,514	$0	$0	$0	$0	$0	$0
16	WWTP Headworks - Proj. Bond		$0	$0	$0	$0	$0	$0	$0	$0	$0
17	WWTP Instrumentation/Control	421437		$0	$175,000	$0	$0	$0	$0	$0	$0
18	WWTP Electrical	421439		$0	$0	$0	$0	$100,000	$0	$80,000	$800,000
19	WWTP Activated Sludge			$0	$0	$0	$60,000	$0	$0	$0	$0
20	WWTP Primary Clarifiers	421005		$0	$0	$300,000	$0	$0	$0	$0	$0
21	WWTP Secondary Clarifiers	421006		$0	$0	$0	$0	$0	$0	$0	$0
22	WWTP UV Disinfection	421110		$79,707	$242,527	$0	$0	$0	$0	$0	$0
23	WWTP UV Disinfection - Proj. Bond		$4,180,000	$0	$0	$0	$0	$0	$0	$0	$0
24	WWTP Permit Improvements - 2010 Bond	**424901**		$0	$9,400,855	$0	$0	$0	$0	$0	$0
25	Wastewater Treatment Rehabilitation			$0	$0	$0	$0	$0	$0	$0	$0
26	Valmont Butte	421675		$0	$1,023,528	$0	$0	$0	$0	$0	$0
27	Biosolids Handling & Dewatering	421670		$53,084	$0	$0	$0	$150,000	$0	$0	$0
28	WWTP Biosolids Digester	421671		$868,095	$1,637	$0	$0	$0	$0	$0	$0
29	WWTP Biosolids Digester - Proj. Bond	**424xxx**		$0	$0	$0	$0	$0	$0	$0	$0
30	WWTP Cogeneration	421329		$0	$0	$0	$150,000	$0	$0	$0	$0
31	WWTP Digester Complex	421007		$0	$0	$0	$0	$0	$0	$0	$0
32	WWTP Digester Cleaning	421360		$0	$0	$0	$0	$0	$0	$0	$112,551
33	Bond Issuance Costs	**423998**		$139,694	$0	$0	$0	$0	$0	$0	$0
34	**Subtotal - Wastewater Treatment Plant**			$1,192,942	$11,307,129	$550,000	$560,000	$350,000	$256,090	$1,080,000	$912,551
35											
36	**Marshall Landfill**										
37	Marshall Landfill	421078		$0	$100,000	$0	$0	$0	$0	$0	$0
38	**Subtotal - Marshall Landfill**			$0	$100,000	$0	$0	$0	$0	$0	$0
39											
40	**Wastewater System Monitoring and Metering**										
41	Yards Master Plan Implementation	421039		$0	$50,000	$0	$0	$0	$0	$0	$0
42	Automated Meter Reading	421548		$0	$0	$0	$0	$0	$0	$0	$0
43	Utility Billing Computer System Replacement	421453		$0	$60,232	$0	$0	$0	$0	$0	$250,000
44	**Subtotal - Monitoring and Metering**			$0	$110,232	$0	$0	$0	$0	$0	$250,000
45											
46	**Collection and Conveyance System Rehabilitation**										
47	Collection System Monitoring	421450		$0	$0	$50,000	$0	$0	$0	$0	$56,275
48	Sanitary Sewer Rehabilitation	421002		$1,006,475	$450,000	$450,000	$450,000	$465,000	$480,450	$496,364	$512,754
49	Sanitary Sewer Manhole Rehabilitation	421454		$93,701	$101,707	$100,000	$100,000	$103,000	$106,090	$109,273	$112,551
50	IBM Pump Station	421521	$500,000	$0	$50,000	$500,000	$0	$0	$0	$0	$0
51	Tier 1 Boulder Creek 2 Master Plan Project		$733,000	$0	$0	$0	$0	$0	$0	$0	$0
52	Tier 1 Goose Creek 1/1A Master Plan Project		$1,203,000	$0	$0	$0	$0	$0	$0	$0	$0
53	Tier 1 Goose Creek 3 Master Plan Project		$482,000	$0	$0	$0	$0	$0	$0	$0	$0
54	Tier 1 Goose Creek 5 Master Plan Project		$2,559,000	$0	$0	$0	$0	$0	$0	$0	$25,000
55	Tier 2 Boulder Creek 1 Master Plan Project		$1,653,000	$0	$0	$0	$0	$0	$0	$0	$0
56	Tier 2 Boulder Creek 3 Master Plan Project		$1,939,000	$0	$0	$0	$0	$0	$0	$0	$0
57	Tier 2 Boulder Creek 4 Master Plan Project		$12,356,000	$0	$0	$0	$0	$0	$0	$0	$0
58	Tier 2 Goose Creek 4 Master Plan Project		$3,928,000	$0	$0	$0	$0	$0	$0	$0	$0
59	Tier 2 Gunbarrel 1 Master Plan Project		$1,116,000	$0	$0	$0	$0	$0	$0	$0	$0
60	Tier 2 Gunbarrel 2 Master Plan Project		$939,000	$0	$0	$0	$0	$0	$0	$0	$0
61	Tier 2 South Boulder Creek 1 Master Plan Project		$733,000	$0	$0	$0	$0	$0	$0	$0	$0
62	**Subtotal - Sewer System Rehabilitation**			$1,100,176	$601,707	$1,100,000	$550,000	$568,000	$586,540	$605,636	$706,581
63											
64	**Wastewater System Expansion**										
65	Annexation Related WW System Expansion	421436		$564,245	$153,067	$0	$0	$0	$0	$0	$0
66	**Subtotal - Wastewater System Expansion**			$564,245	$153,067	$0	$0	$0	$0	$0	$0
67											
68	**TOTAL CAPITAL USES OF FUNDS**			$2,857,363	$12,272,135	$1,650,000	$1,110,000	$918,000	$842,630	$1,685,636	$1,869,132
69											

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1									**CITY OF BOULDER**									
2									**2012 FUND FINANCIAL**									
3									**STORMWATER/FLOOD MANAGEMENT UTILITY FUND**									
4																		
5			**2010**		**2011**		**2012**		**2013**		**2014**		**2015**		**2016**		**2017**	
6			**ACTUAL**		**REVISED**		**PROPOSED**		**PROJECTED**		**PROJECTED**		**PROJECTED**		**PROJECTED**		**PROJECTED**	
7	**UNAPPROPRIATED FUND BALANCE**																	
8	Beginning of Year Fund Balance		$12,073,195		$11,664,899		$6,307,444		$6,709,707		$7,406,835		$7,171,155		$7,078,633		$5,444,361	
9																		
10	SOURCES OF FUNDS																	
11	Operating--																	
12	Service Charge Fees		$5,032,288		$4,976,883		$4,986,837		$5,146,715		$5,311,718		$5,482,012		$5,657,765		$5,839,153	
13	Projected Rate Increases		$0	3%	$0	0%	$149,605	3%	$154,401	3%	$159,352	3%	$164,460	3%	$169,733	3%	$175,175	3%
14	TOTAL OPERATING SOURCES OF FUNDS		$5,032,288		$4,976,883		$5,136,442		$5,301,116		$5,471,070		$5,646,472		$5,827,498		$6,014,328	
15																		
16	Non-Operating--																	
17	Plant Investment Fees		$423,421		$500,000		$500,000		$550,000		$550,000		$550,000		$550,000		$550,000	
18	Urban Drainage District Funds		$825,957		$125,000		$150,000		$325,000		$450,000		$400,000		$400,000		$400,000	
19	Colorado Dept of Transportation Funds		$0		$0		$300,000		$500,000		$1,200,000		$0		$0		$0	
20	State & Federal Grants		$0		$0		$0		$0		$0		$0		$0		$0	
21	Interest on Investments		$276,448		$65,042		$110,380		$134,194		$185,171		$215,135		$212,359		$163,331	
22	Intergovernmental Transfers (KICP Program)		$132,044		$145,000		$150,000		$154,500		$159,135		$163,909		$168,826		$173,891	
23	Rent and other miscellaneous revenue		$110,048		$36,000		$36,000		$36,000		$36,000		$36,000		$36,000		$1,000	
25	Sale of Real Estate - Yards Masterplan		$0		$0		$98,250		$0		$0		$0		$0		$0	
26	Projected Bonds		$3,249,843		$0		$0		$0		$5,015,000		$0		$0		$0	
27	TOTAL NON-OPERATING SOURCES OF FUNDS		$5,017,761		$871,042		$1,344,630		$1,699,694		$7,595,306		$1,365,044		$1,367,185		$1,288,222	
28																		
29	**TOTAL SOURCES OF FUNDS**		**$10,050,049**		**$5,847,925**		**$6,481,072**		**$7,000,810**		**$13,066,376**		**$7,011,516**		**$7,194,684**		**$7,302,550**	
30																		
31	USES OF FUNDS																	
32	Operating Expenditures--																	
33	Administration		$389,900		$392,220		$391,012		$402,742		$414,825		$427,269		$440,087		$453,290	
34	Planning and Project Management		$1,048,822		$1,032,783		$1,035,937		$1,067,015		$1,099,026		$1,131,996		$1,165,956		$1,200,935	
35	Stormwater Contract Management		$24,982		$48,473		$48,473		$49,927		$51,425		$52,968		$54,557		$56,193	
36	Stormwater Quality and Education		$840,414		$912,296		$911,354		$938,695		$966,855		$995,861		$1,025,737		$1,056,509	
37	System Maintenance		$604,397		$741,968		$793,955		$817,774		$842,307		$867,576		$893,603		$920,411	
38	**Proposed Additions - Priority Based NPE Increase**		**$0**		**$0**		**$26,928**		**$27,736**		**$28,568**		**$29,425**		**$30,308**		**$31,217**	
40	Sick/Vacation Accrual		($13,261)		$50,000		$50,000		$51,500		$53,045		$54,636		$56,275		$57,964	
41	TOTAL OPERATING USES OF FUNDS		$2,895,254		$3,177,740		$3,257,659		$3,355,389		$3,456,050		$3,559,732		$3,666,524		$3,776,520	
42																		
43	Debt--																	
44	Goose Creek 1998 Revenue Bond		$548,381		$0		$0		$0		$0		$0		$0		$0	
45	Refunding of the Goose Creek 1998 Revenue Bond		$4,210,793		$388,667		$387,258		$390,742		$384,042		$387,038		$381,675		$386,138	
46	Projected Bond - South Boulder Creek		$0		$0		$0		$0		$437,035		$437,035		$437,035		$437,035	
48	TOTAL DEBT SERVICE		$4,759,174		$388,667		$387,258		$390,742		$821,077		$824,073		$818,710		$823,173	
49																		
50	Transfers Out--																	
51	Cost Allocation		$195,486		$201,742		$215,258		$236,784		$260,462		$286,508		$315,159		$346,675	
52	Planning & Development Services		$114,181		$117,606		$121,134		$124,768		$128,511		$132,366		$136,337		$140,428	
53	Other Transfers		$15,000		$0		$0		$0		$0		$0		$0		$0	
54	TOTAL TRANSFERS OUT		$324,667		$319,348		$336,392		$361,552		$388,973		$418,875		$451,497		$487,103	
55																		
56	Capital Improvements Program--																	
57	TOTAL CAPITAL USES OF FUNDS		$2,465,989		$2,550,000		$2,147,500		$2,247,500		$4,114,000		$2,355,995		$3,948,500		$4,203,814	
58																		
59	PROJECTED BOND - SOUTH BOULDER CREEK		$0		$0		$0		$0		$4,500,000		$0		$0		$0	
60	PROJECTED BOND - ISSUANCE COSTS		$0		$0		$0		$0		$75,000		$0		$0		$0	
61	ENCUMBRANCES, CARRYOVERS & MID-YR ATBS		$0		$4,819,625		$0		$0		$0		$0		$0		$0	
62																		
63	**TOTAL USES OF FUNDS**		**$10,445,084**		**$11,255,380**		**$6,128,809**		**$6,355,183**		**$13,355,101**		**$7,158,675**		**$8,885,230**		**$9,290,609**	
64																		
65	Sick/Vacation Accrual Adjustment		($13,261)		$50,000		$50,000		$51,500		$53,045		$54,636		$56,275		$57,964	
66																		
67	**FUND BALANCE - END OF YEAR**		**$11,664,899**		**$6,307,444**		**$6,709,707**		**$7,406,835**		**$7,171,155**		**$7,078,633**		**$5,444,361**		**$3,514,266**	
68																		
69	Designated Reserves -																	
70	Bond Reserves		$324,984		$324,984		$324,984		$324,984		$762,019		$762,019		$762,019		$762,019	
71	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	
72	Sick/Vacation/Bonus Liability		$59,249		$61,026		$62,857		$64,743		$66,685		$68,686		$70,746		$72,869	
73	Pay Period 27 Reserve		$42,317		$53,817		$65,317		$76,817		$88,817		$99,817		$110,817		$121,817	
74	TOTAL RESERVES		$1,476,550		$1,489,827		$1,503,158		$1,516,544		$1,967,521		$1,980,522		$1,993,582		$2,006,705	
75																		
76	**SURPLUS/(DEFICIT) vs. DESIGNATED RESERVES**		**$10,188,349**		**$4,817,616**		**$5,206,549**		**$5,890,291**		**$5,203,633**		**$5,098,111**		**$3,450,779**		**$1,507,561**	
77	**OPERATING RESERVE (Goal: 25% of Operating) ***		**$804,980**		**$874,272**		**$898,513**		**$929,235**		**$961,256**		**$994,652**		**$1,029,505**		**$1,065,906**	
78	**CAPITAL RESERVE (Goal: $200,000)**		**$200,000**		**$200,000**		**$200,000**		**$200,000**		**$200,000**		**$200,000**		**$200,000**		**$200,000**	
79	**SURPLUS/(DEFICIT) vs. ALL RESERVES**		**$9,183,368**		**$3,743,344**		**$4,108,036**		**$4,761,055**		**$4,042,378**		**$3,903,459**		**$2,221,274**		**$241,655**	
80																		
88	* Reserve levels are based on industry standards and are maintained for revenue bonds and the capital intensive nature of the utility.																	
89																		

	A	B	C	D	E	F	G	H	I	J	K
1				CITY OF BOULDER							
2				2012-2017 CAPITAL IMPROVEMENT PROGRAM							
3				STORMWATER AND FLOOD MANAGEMENT UTILITY FUND							
4											
5											
6	**Assumed Inflation Rate**	**3.00%**	**ESTIMATED**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
7	**PROJECT NAME**		**2008 COST**	**ACTUAL**	**REVISED**	**PROPOSED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**	**PROJECTED**
8											
9	**Major Drainageways**										
10	Elmer's Twomile Creek	431332		$1,096,508	$29,957	$0	$0	$0	$0	$0	$0
11	Goose Creek	431710		$0	$0	$0	$0	$0	$0	$0	$0
12	South Boulder Creek	431202		$275,386	$453,789	$0	$0	$1,000,000	$0	$0	$0
13	South Boulder Creek - Bond Proceeds			$0	$0	$0	$0	$4,500,000	$0	$0	$0
14	Bond Issuance Costs			$0	$0	$0	$0	$75,000	$0	$0	$0
15	Skunk Canyon Creek			$0	$0	$0	$0	$0	$0	$0	$0
16	Sunshine Creek			$0	$0	$0	$0	$0	$0	$0	$0
17	Twomile Canyon Creek			$0	$0	$0	$0	$0	$0	$0	$0
18	Bluebell Canyon Creek - King's Gulch			$0	$0	$0	$0	$0	$0	$0	$0
19	Viele Channel			$0	$0	$0	$0	$0	$0	$0	$0
20	Four Mile Canyon Creek	431729	$3,500,000	$0	$1,575,859	$0	$0	$0	$0	$0	$1,000,000
21	Bear Canyon Creek	431010		$0	$0	$0	$0	$0	$0	$0	$0
22	Gregory Canyon Creek	431702		$0	$275,000	$0	$0	$0	$0	$0	$0
23	Boulder Creek	431015		$0	$74,250	$100,000	$0	$0	$0	$0	$0
24	Wonderland Creek	431003	$7,500,000	$47,592	$1,698,203	$750,000	$750,000	$750,000	$1,000,000	$1,000,000	$1,000,000
25	Wonderland Creek TIP			$0	$0	$300,000	$500,000	$1,200,000	$0	$0	$0
26	Preflood Acquisition	431622		$664,294	$1,750,925	$500,000	$500,000	$500,000	$500,000	$500,000	$562,754
27	Greenways Program Transfer	431630		$78,285	$501,433	$97,500	$97,500	$97,500	$97,500	$97,500	$97,500
28	**Subtotal - Major Drainageway Improvements**			$2,162,065	$6,359,416	$1,747,500	$1,847,500	$8,122,500	$1,597,500	$1,597,500	$2,660,254
29											
30	**Miscellaneous**										
31	Yards Master Plan Implementation	431039		$0	$50,000	$0	$0	$0	$0	$0	$0
32	CU Bike/Ped Bridge Replacement I	431054		$0	$200,000	$0	$0	$0	$0	$0	$0
33	Utility Billing Computer System Replacement	431453		$0	$22,607	$0	$0	$0	$0	$0	$250,000
34	**Subtotal - Miscellaneous Drainage Improvements**			$0	$272,607	$0	$0	$0	$0	$0	$250,000
35											
36	**Stormwater Management**										
37	Upper Goose Creek	431459	$10,700,000	$0	$0	$0	$0	$0	$175,000	$1,750,000	$674,530
38	Stormwater Quality Improvements	431775		$4,232	$51,880	$50,000	$50,000	$51,500	$53,045	$54,636	$56,275
39	Broadway Storm Sewer	431013		$138,089	$0	$0	$0	$0	$0	$0	$0
40	Storm Sewer Rehabilitation	431760		$0	$100,000	$100,000	$100,000	$257,500	$265,225	$273,182	$281,377
41	Transportation Coordination	431780		$161,603	$338,397	$250,000	$250,000	$257,500	$265,225	$273,182	$281,377
42	**Subtotal - Localized Drainage Improvements**			$303,924	$490,277	$400,000	$400,000	$566,500	$758,495	$2,351,000	$1,293,559
43											
44	**TOTAL CAPITAL USES OF FUNDS**			$2,465,989	$7,122,300	$2,147,500	$2,247,500	$8,689,000	$2,355,995	$3,948,500	$4,203,814
45											

City of Boulder FTE count detail by fund 2012

TITLE	FTE
Water Fund (510)	
Admin - Water	1.66
Director of Public Works for Developm	0.40
Director of Public Works	0.03
Financial Manager	0.35
Admin Specialist II	0.35
Rate/Data Analyst	0.50
Program Coord. (Wildlife)	0.03
Billing Services - Water	2.85
Supervisor	0.54
Representative	2.00
CIS Support	0.31
Support Services - 510	0.64
Administrator	0.30
Communication Coordinator	0.14
Communication Specialist	0.20
Engineering Ops - Water	5.93
Draftsperson II	0.60
Engineering Project Manager	2.50
Admin Specialist II	0.40
Admin Supervisor	0.18
Senior Engineering Tech	2.00
Project Administrator	0.25
Water Resources Operations	2.00
Water Resources Coordinator	1.00
Water Source Specialist	1.00
Watershed Operations	2.00
Water Source Manager	1.00
Water Source Operations	1.00
Hydroelectric Operations	3.00
Hydro Tech. II	2.00
Hydroelectric Manager	1.00
Betasso WTP Operations	12.25
Industrial Mechanic	2.00
Plant Operator A	5.00
Chief Plant Operator	3.00
Treatment Plant Coor.	0.50
Treatment Plant Supervisor	1.00
Admin. Specialist II	0.75
Bldr Res WTP Operations	10.75
Lead Mechanic	1.00
Industrial Mechanic	1.00
Chief Plant Operator	4.00
Plant Operator C	1.00
Treatment Plant Coordinator	0.50
Treatment Plant Supervisor	1.00
Admin. Specialist II	0.25
Process Optimization Specialist	2.00
System Controls	3.00
Electronics Tech II	2.00
SCADA System Admin.	1.00
Water Quality Operations	6.93
Field Specialist	0.25
Water Quality Project Manager	1.00
Water Source Operations Manager	2.00
Water Quality Coordinator	0.20
Drinking Water Quality Lab	1.00
Water Quality Inspector	1.00
Admin. Specialist II	0.20
Laboratory Supervisor	1.00
Analytical Chemist	0.20
Watershed Educations Specialist	0.08
Water Conservation	1.56
Water Quality Coordinator	0.20
Program Specialist	1.00
Admin. Specialist I	0.20
Watershed Outreach Coor.	0.16
Distribution System Maint	14.95
Maintenance Person II	3.00
Maintenance Person III	3.00
Maintenance Person IV	3.20
Maintenance Supervisor	1.00
Utility Maintenance Coor	0.20
Program Planner	0.60
Standby Utility	0.50
Utility Locator	1.00
Material Supply Specialist	0.80
Valve Operator	1.00
Admin. Specialist II	0.45
Program Admin. MGR	0.20
Meter Operations-Water	7.36
Meter Service Tech	5.52
Meter Service Operations	0.92
Shop Water Meter Service Tech	0.92
	74.88

TITLE	FTE
Wastewater Fund (520)	
Admin -Wastewater	1.41
Director of Public Works for Develo	0.35
Director	0.03
Financial Manager	0.35
Admin Specialist II	0.35
Rate/Data Analyst	0.3
Program Coord. (Wildlife)	0.03
Billing Services - Wastewater	1.66
Supervisor	0.27
Representative	1.17
CIS Support	0.22
Support Services - 520	0.39
Administrator	0.15
Communication Coordinator	0.10
Communication Specialist	0.14
Engineering Ops - Wastewater	1.87
Draftsperson II	0.20
Engineering Project Manager	0.75
Admin Specialist II	0.20
Admin Supervisor	0.07
Senior Engineering Tech	0.65
Wastewater Quality Operations	3.99
Pretreatment Specialist	0.50
Laboratory Supervisor	0.50
Water Quality Coordinator	0.20
Laboratory Aide	0.50
Water Quality Analyst	0.70
Lead Water Quality Analyst	0.80
Admin. Specialist I	0.20
Analytical Chemist	0.50
Watershed Educations Specialist	0.09
Industrial Pretreatment	3.81
Pretreatment Inspector	1.00
Laboratory Supervisor	0.50
Pretreatment Specialist	0.50
Water Quality Coordinator	0.20
Admin Specialist II	0.20
Watershed Out Reach Coor.	0.16
Field Specialist	1.25
Collection System Maintenance	13.95
Maintenance Person I	2.00
Maintenance Person II	2.00
Maintenance Person IV	1.80
Maintenance Person III	4.00
Utility Maintenance Coor.	0.15
Program Planner	0.55
Standby Utility	0.50
Maintenance Supervisor	0.80
Utility Locator	0.50
TV Operator	1.00
Material Supply Specialist	0.10
Admin Specialist II	0.40
Program Admin MGR	0.15
Meter Operations-Wastewater	0.64
Meter Service Tech.	0.48
Meter Service Operations Assistant.	0.08
Shop Water Meter Service Tech	0.08
Wastewater Operations	15.80
Chief Plant Operator	5.00
Treatment Plant Coordinator	1.00
Plant Operator C	3.00
Plant Operator A	2.00
Admin. Specialist II	1.00
Treatment Plant Supervisor	1.80
Process Optimization Specialist	1.00
Plant Operator Trainee	1.00
WWTP Maintenance	9.20
Plant Maintenance Supervisor	1.00
Industrial Mechanic	2.00
Cogeneration Tech	0.20
Maintenance Person II	1.00
Maintenance Person III	2.00
Electronics Tech. II	1.00
Lead Instrumentation/Control I	1.00
Resources Reccovery Operator	1.00
WWTP Safety	0.20
Treatment Plant Supervisor	0.20
Cogeneration	0.80
Cogeneration Tech	0.80
Biosolids Recycling	0.57
Treatment Plant Supervisor	0.4
Chief Resource Recovery Operator	0.12
Resources Reccovery Operator	0.05
Biosolids Processing	3.43
Treatment Plant Supervisor	0.60
Cheif Resource Recovery Op	0.88
Resource Recovery Operator	1.95
	57.72

TITLE	FTE
Stormwater Fund (530)	
Admin - Flood Control	1.11
Director of Public Works for Develop	0.25
Director	0.02
Financial Manager	0.30
Admin Specialist II	0.30
Rate/Data Analyst	0.2
Program Coord. (Wildlife)	0.04
Billing Services - Flood	1.24
Supervisor	0.19
Representative	0.83
CIS Support	0.22
Support Services - 530	0.41
Administrator	0.15
Communication Coordinator	0.10
Communication Specialist	0.16
Engineering Ops -Flood Control	5.17
Draftsperson II	0.20
Engineering Project Manager	1.50
Greenways Coordinator	1.00
Admin Specialist II	0.27
Admin Supervisor	0.10
Senior Engineering Tech	0.35
Maintenance Person III	0.50
Project Administrator	0.75
Flood Management Program Manger	0.50
Stormwater Quality Operations	3.70
Water Quality Coordinator	0.20
Water Quality Analyst	0.30
Stormwater Quality Specialist	1.00
Lead Water Quality Analyst	0.20
Water Quality Inspector- Storage	1.00
Admin. Specialist II	0.20
Analytical Chemist	0.30
Field Specialist (Drinking Water)	0.25
Watershed Outreach Coor.	0.25
Stormwater Permit Compliance	1.76
Watershed Educations Specialist	1.50
Watershed Outreach Coor.	0.26
Storm Sewer Maintenance	4.75
Maintenance Person I	1.00
Maintenance Person II	0.25
Maintenance Person III	0.30
Maintenance Person IV	0.70
Maintenance Supervisor	0.10
TV Operator	1.00
Utility Maintenance Coor.	0.15
Program Planner	0.20
Utility Locator	0.50
Material Supply Specialist	0.10
Admin. Specialist II	0.15
Program Admin. MGR	0.15
Program Planner	0.15
Flood Channel Maintenance	2.55
Maintenance Person II	0.55
Maintenance Person III	1.00
Maintenance Person IV	0.50
Maintenance Supervisor	0.50
Flood Management	0.75
Flood Management Program Manger	0.50
Civil Engineer II	0.25
	21.44

TITLE	FTE
Transportation (180)	
Storm Sewer Maint - Transpo	0.80
	0.80
Sub Total Stormwater & Transportation	22.24
Total FTE count	
COB Public Works Utilities	**154.84**
Revised 6/17/11	

SUMMARY OF THE 2012-2017
UTILITIES DIVISION CAPITAL IMPROVEMENT PROGRAM
June 15, 2011

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. The 2012-2017 capital improvement program (CIP) was developed using the following proposed 2012 revenue increases from monthly utility fees:

- Water – 3%
- Wastewater – 3%
- Stormwater/ Flood Management – 3%

Any revenue increases for 2012 will be reviewed by the Water Resources Advisory Board and approved by City Council. Approval of revenue increases that are different from what is listed above may impact the 2012-2017 CIP.

In addition to the monthly utility fees, significant revenue sources include Plant Investment Fees (PIFs) from new development or redevelopment and hydroelectric sales to Xcel Energy. 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
- Fourmile Canyon Creek
- South Boulder Creek

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 2012-2017, it is anticipated that new bonds will be issued for the following projects:

<u>Water</u>:

1. Betasso Water Treatment Facility (WTF) Improvements ($11.6 million in 2016) to fund improvements to the Betasso WTF to assure compliance with federal Safe Drinking

Water Act regulations.

Wastewater:

1. No bonds are anticipated in the 2012-2017 planning period.

Stormwater and Flood Management**:**

1. South Boulder Creek Improvements ($4.5 million in 2014) to fund improvements designed to mitigate flood hazards in the South Boulder Creek West Valley area.

ACCOMPLISHMENTS AND HIGHLIGHTS

Recent CIP related accomplishments include:

Water Utility

1. A significant improvement and capacity expansion project at the Boulder Reservoir Water Treatment Facility (WTF) was completed in 2010. This project provides 16 million gallons per day (mgd) firm capacity and 20 mgd maximum capacity, supplementing the existing treatment capacity of 40 mgd at the Betasso WTF. Additional treatment capacity at the Boulder Reservoir WTF was needed to assure that sufficient amounts of Boulder's west slope water supplies, which are delivered through Boulder Reservoir, can be treated during droughts that reduce the city's Boulder Creek water supplies. It was also necessary to increase capacity at Boulder Reservoir WTF to meet expected buildout water demands because this WTF will operate at a higher rate during most of the year in the future.

Wastewater Utility

1. The city is currently engaged in a major rehabilitation/improvement project at the 75th St. Wastewater Treatment Facility (WWTF). The project will 1) replace the existing chlorine disinfection system with an ultraviolet (UV) disinfection system, 2) improve the biosolids digesters including replacing the existing gas mixing system with pump mixing and 3) upgrade the headworks including new bar screens, washer compactors and grit classifier machines. The project was financed by issuing bonds in 2010 and the construction bid has been awarded. A 22 month construction schedule is anticipated. The project is expected to be completed in April 2013.

Stormwater and Flood Management Utility

1. City Council accepted a flood mitigation plan for Wonderland and Fourmile Canyon Creek in late 2009. High priority projects are defined for the following areas: 1) Wonderland Creek between Foothills Parkway and 28th St. (this includes the underpasses at the Burlington Northern & Santa Fe Railway and 28th Street and the separation of Wonderland Creek from the Boulder White Rock Ditch) and 2) Fourmile Canyon Creek in the area of Crestview Elementary school (this includes crossing upgrades at Violet Avenue, Upland Avenue and 19th Street.) The city received Transportation Improvement Project (TIP) funding for the Wonderland Creek project and the final design and

construction bid package are being prepared. A Community and Environmental Assessment Process (CEAP) has been initiated for the Fourmile Canyon Creek project.

2. The Elmer's Two-mile Creek drainageway improvement project was completed in 2010. The project used Stormwater and Flood Management Utility CIP funds, TIP funds, and UDFCD funds. Over 50 properties were removed from the 100-year floodplain and the Letter of Map Revision has been accepted by the Federal Emergency Management Agency.

Highlights of the proposed six-year CIP include:

Water

1. Funding for annual waterline replacement continues at a rate of $2,100,000. This should be sufficient to maintain the current service level, as defined by water main breaks, over the next decade. The replacement program is coordinated with the Transportation Division street overlay and reconstruction program.

2. Funds have been budgeted for annual, on-going repair and rehabilitation work on the Barker Gravity Pipeline. This pipeline is a critical component of the city's source water system because it conveys the Barker Reservoir/Middle Boulder Creek water to the Betasso WTF. A 10-year maintenance plan was recently developed to guide this work.

3. Funds have been budgeted in 2014 for inspection of the Lakewood Pipeline. Based on observations made during the 2009 inspection it is recommended that the frequency of inspections be reduced to once every five years. No funds have been budgeted for pipeline repair costs. Funds would be transferred from the Lakewood Pipeline Remediation Reserve to cover the costs.

4. Funding for rehabilitation and improvements to the Betasso WTF is recommended for the 2015-2016 time period. The Betasso WTF is the city's primary water treatment facility and has deteriorated during almost 50 years of operation despite on-going maintenance and rehabilitation.

5. Funding for construction of the proposed Carter Lake Pipeline has been scheduled for the 2017-2018 time period. Funding of the pipeline in the near term without federal funding assistance would have a significant impact on water rates. Staff continues to recommend the pipeline as the best long-term solution to water quality, operational and security vulnerability issues related to drawing water directly from the Boulder Feeder Canal and Boulder Reservoir. The Northern Colorado Water Conservancy District submitted a revised permit application to Boulder County. Staff will return to the WRAB late in 2011 or early 2012 with a revised CEAP depending on the County's permit decision. The

pipeline will provide the opportunity to develop another hydroelectric generation facility.

Wastewater

1. Funding for the annual Sanitary Sewer Rehabilitation projects continues at a rate of $450,000. This should be sufficient to maintain the current service level, over the next decade.

2. In March 2011 the city received a new discharge permit for the 75th Street WWTF with an effective date of May 1, 2011. Additional or new permit requirements that require some level of investment to comply with include: 1) substantially lower daily maximum ammonia effluent limits; 2) a new daily maximum nitrate effluent limit; and 3) a substantially lower arsenic effluent limit. The city was successful in negotiating an extended compliance schedule which requires compliance with the ammonia and nitrate effluent limits by December 1, 2017. A two-year compliance schedule was provided to comply with the arsenic effluent limit. Complying with the ammonia, nitrate and arsenic effluent limits will require a combination of regulatory negotiations, environmental studies and WWTF capital improvements. Staff has identified funding in the 2012-2017 CIP to address improvements that will be required to meet the new effluent regulations. The 2012 and 2013 funding will be used to provide new probes, instrumentation and controls at four plant locations including the headworks, centrate, aeration basins, and the plant effluent. The 2014-2016 funding will be used to evaluate and construct various plant modifications that may include carbon addition, and also to evaluate the needs of the next permit cycle.

3. A comprehensive list of WWTF rehabilitation projects has been identified based on Utility Division asset management protocols. Within the 6-year CIP, funding for rehabilitation of major electrical components is deemed most critical and is recommended in the 2016-2017 time period.

4. The Water Quality Control Division of the Colorado Department of Public Health and Environment is requiring that the city provide overflow protection at the IBM Lift Station. Staff has identified funding in 2011 and 2012 to address this issue. The 2011 funding is to hire an engineering consultant to help provide an analysis of the lift station's storage capacity, power redundancy, as well as other rehabilitation issues. The 2012 funding is for the construction of the new facilities identified in the study/design phase.

Stormwater and Flood Management

1. The city completed a Community and Environmental Assessment Process (CEAP) document for the Wonderland Creek Greenways Improvement Project. The project proposes 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. The CEAP was approved Nov. 3, 2010. The city began design of the recommended improvements in 2011 with construction anticipated through 2013. The project is anticipated to cost

approximately $5.2 million to design and construct. The city received $2 million in federal Transportation Improvement Project (TIP) funding for the project. TIP funding is included in the Stormwater and Flood Management CIP along with $3.1 million in funding from the city. Utilities funds will be leveraged with the federal funds and it is important that this project be completed in a timely manner so that the TIP funding is not jeopardized. This project is being coordinated by the city's Greenways Program.

2. Funding is recommended for improvements designed to mitigate South Boulder Creek flood hazards. Revised flood mapping indicates that a total of 700 structures (with a total of approximately 1,200 dwelling units) are located in the South Boulder Creek 100-year floodplain. Property damage resulting from a 100-year storm event is estimated to exceed $215 million. The South Boulder Creek Flood Mitigation Planning Study began in early 2010 and is being funded by the city and the UDFCD. The study is focused on developing and evaluating alternatives to mitigate flood impacts to structures and areas within the current incorporated city limits, primarily within the West Valley area. The short list of five alternatives will be refined and a recommendation presented to advisory boards and City Council. The anticipated schedule for presentation of a final recommendation is 4th quarter 2011.

RELATIONSHIP TO MASTER PLAN AND PRIORITIZATION

Historically, master plans focused on service area growth and its impact on related utility infrastructure needs. At this time, growth is not as important an issue as the need to rehabilitate and address deficiencies and deterioration in the existing infrastructure. Identification of these issues occurs on an on-going basis and is documented in the Utilities Division Annual Report as well as other on-going studies and reports.

Several years ago, 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:

<u>Water</u>

- Source Water Master Plan – 2009
- Treated Water Master Plan (TWMP) – 2011
- Water Utility Master Plan (WUMP) – 2011 (The Water Resources Advisory Board recommended acceptance of this plan at their May 2011 meeting. It is anticipated the Plan will be presented to the Planning Board at their July 21, 2011 meeting and to

City Council in September 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

1. Reliability of water and wastewater collection, delivery and treatment
2. Water quality and other environmental regulations
3. Worker health and safety
4. Opportunity to collaborate with other city projects, such as transportation
5. Opportunity to collaborate with other utility providers to leverage funds or obtain federal or state grants.
6. Potential for operation and maintenance cost savings
7. Accommodating new growth and development

Stormwater and Flood Management

1. Life safety (high hazard) mitigation
2. Flood emergency response capability
3. Critical facility (vulnerable population) hazard mitigation
4. Property damage mitigation
5. Collaboration with other Greenways Program Objectives
6. Potential for operation and maintenance cost savings
7. Accommodating new growth and development

DEFERRED PROJECTS, CHANGES, AND UNFUNDED NEEDS

Funding for several desirable projects has been deferred beyond the current six-year CIP period or reduced during the current six-year CIP period because of revenue limitations and construction costs inflation. Revenue is limited based on a number of factors including reduced water sales and slower growth. Utility rates have typically been increased in part to account for construction cost inflation, however this did not occur in 2010 and as a result some CIP projects have been delayed.

Projects that have been delayed due to budget limitations include:

Water

- Carter Lake Pipeline (funding delayed, begin design in 2017)
- Barker Dam Outlet (funding delayed, begin design in 2017)
- Barker Dam Hydro (funding delayed, begin design in 2017)

Wastewater

- Improvements in the "Goose Creek 5 Master Plan Project" basin (funding delayed, begin planning in 2017)

Stormwater/ Flood Management

- Upper Goose Creek Stormwater Management (funding reduced)

It should be noted that the proposed CIP assumes funding for the replacement/rehabilitation of existing Utilities assets at a level of 60-75% 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 all essential projects within the six-year planning time frame. The projects listed above can be deferred until a later time and not have a significant negative effect on the service level of the city's utilities systems. Therefore there are no unfunded needs within the 6-year CIP.

However, to continue to meet capital project needs, including the recommended asset replacement goals of 60-75% and compliance with permit regulations, higher utility rate increases will be needed in the near future as indicated in the following table:

	2012	2013	2014	2015	2016	2017
Water	**3%**	3%	6%	6%	6%	4%
Wastewater	**3%**	4%	6%	6%	6%	6%
Stormwater/Flood Management	**3%**	3%	3%	3%	3%	3%

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 2012-2017 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. Over the past ten years, both of these indexes have escalated at an annual rate of approximately 3.5%.

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.

EMERGING NEEDS

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 WTF. The Betasso WTF 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 (~$16M) 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 (WWTF) with new effluent limits. Complying with these limits will require a combination of regulatory negotiations, environmental studies and WWTF capital improvements.

ADVISORY BOARD ACTION

The preliminary 2012 Utilities budget and 2012-2017 CIP were presented to the WRAB on May 16, 2011. The final CIP recommendation is scheduled for WRAB consideration on June 23, 2011.

Scenario I - Annual Report 2010 Revenues (Before Adjustments)

Item	Single-Family Residential	Multifamily Residential	Commercial/ Industrial/ Institutional	Total
Monthly Service Charge	277,177	109,326	50,874	**$437,376**
Wastewater Charge	4,081,596	3,446,038	4,495,314	**12,022,948**
Subtotal Wastewater	**$4,358,773**	**$3,555,364**	**$4,546,188**	**$12,460,324**
Total Usage	1,054,281	897,745	1,161,951	**3,113,977**
Water Revenues (Indoor/Outdoor) Class			**$751,218**	

Scenario 2 - 2010 AWC (Dec-Mar) - Bill Using Min of AWC or Actual Use All Year (RE, MF, CI, II)

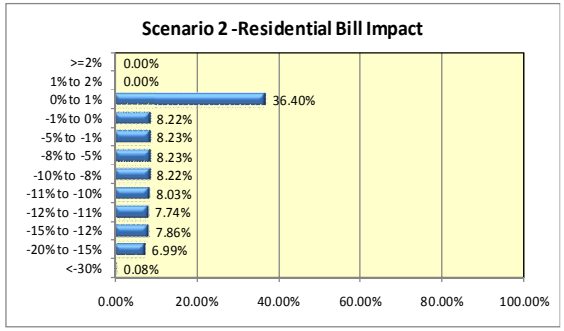
Item	Single-Family Residential	Multifamily Residential	Commercial/ Industrial/ Institutional	Total
Monthly Service Charge	$277,884	$95,496	$88,148	**$461,528**
Wastewater Charge	3,957,507	3,390,394	4,449,839	**11,797,740**
Total Wastewater Rev	**$4,235,391**	**$3,485,890**	**$4,537,987**	**$12,259,267**
Difference from Reported Revenues	($123,382)	($69,474)	($8,201)	($201,057)
Percentage Difference	-2.83%	-1.95%	-0.18%	-1.61%
Total Usage	1,019,323	878,644	1,163,562	**3,061,529**
Difference	(34,958)	(19,101)	1,611	**(52,448)**
% Difference	-3.32%	-2.13%	0.14%	**-1.68%**
Average $ Bill Impact	**($0.51)**	**($3.91)**	**$0.00**	**($0.77)**

Scenario 3 - Alternative 2010 AWC (Dec-Feb) - Existing Methodology

Item	Single-Family Residential	Multifamily Residential	Commercial/ Industrial/ Institutional	Total
Monthly Service Charge	$277,884	$95,496	$88,148	**$461,528**
Wastewater Charge	3,944,366	3,372,907	4,431,843	**11,749,115**
Total Wastewater Rev	**$4,222,249**	**$3,468,403**	**$4,519,991**	**$12,210,643**
Difference from Reported Revenues	($136,523)	($86,961)	($26,197)	($249,682)
Percentage Difference	-1.10%	-0.70%	-0.21%	-2.00%
Total Usage	1,015,990	875,529	1,158,832	**3,050,351**
Difference	(38,291)	(22,216)	(3,119)	**(63,626)**
% Difference	-3.63%	-2.47%	-0.27%	**-2.04%**
Average $ Bill Impact	**($0.62)**	**($2.36)**	**($16.52)**	**($0.78)**
Water Revenues (Indoor/Outdoor)			**$756,355**	
Difference			**$5,137**	

Scenario 4 - Alternative 2010 AWC (Dec-Feb) - Bills Using Min of AWC or Actual Use All Year (RE, MF, CI, II)

Item	Single-Family Residential	Multifamily Residential	Commercial/ Industrial/ Institutional	Total
Monthly Service Charge	$277,884	$95,496	$88,148	**$461,528**
Wastewater Charge	3,781,429	3,292,173	4,431,843	**11,505,444**
Total Wastewater Rev	**$4,059,312**	**$3,387,669**	**$4,519,991**	**$11,966,972**
Difference from Reported Revenues	($299,460)	($167,695)	($26,197)	($493,353)
Percentage Difference	-6.87%	-4.72%	-0.58%	-3.96%
Total Usage	973,624	854,567	1,158,832	**2,987,023**
Difference	(80,657)	(43,178)	(3,119)	**(126,954)**
% Difference	-7.65%	-4.81%	-0.27%	**-4.08%**
Average $ Bill Impact	**($1.24)**	**($8.77)**	**($16.52)**	**($1.85)**
Water Revenues (Indoor/Outdoor)			**$756,355**	
Difference			**$5,137**	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-8% to -5% 8.23%
-10% to -8% 8.22%
-11% to -10% 8.03%
-12% to -11% 7.74%
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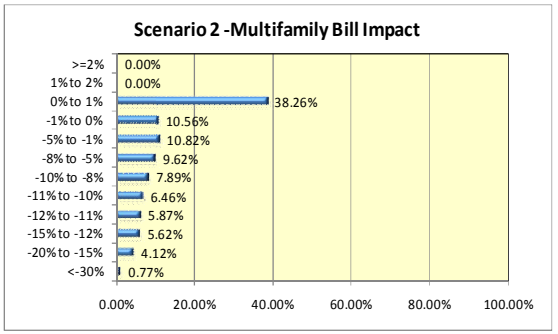
Scenario 2 -Multifamily Bill Impact
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-10% to -8% 7.89%
-11% to -10% 6.46%
-12% to -11% 5.87%
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-20% to -15% 4.12%
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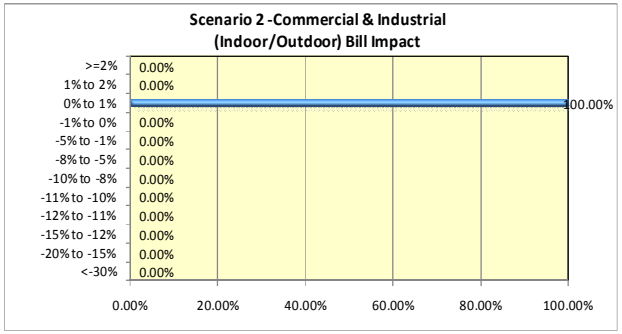
Scenario 2 -Commercial & Industrial
(Indoor/Outdoor) Bill Impact
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0% to 1% 100.00%
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-5% to -1% 0.00%
-8% to -5% 0.00%
-10% to -8% 0.00%
-11% to -10% 0.00%
-12% to -11% 0.00%
-15% to -12% 0.00%
-20% to -15% 0.00%
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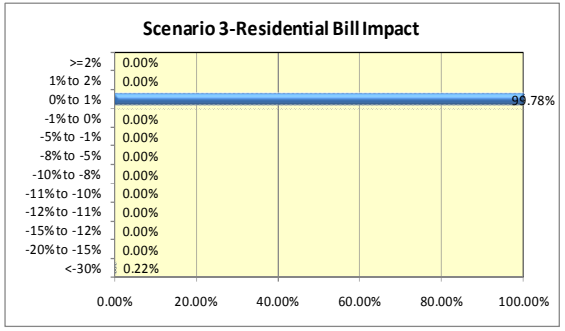
0.00% 20.00% 40.00% 60.00% 80.00% 100.00%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-8% to -5% 0.00%
-10% to -8% 0.00%
-11% to -10% 0.00%
-12% to -11% 0.00%
-15% to -12% 0.00%
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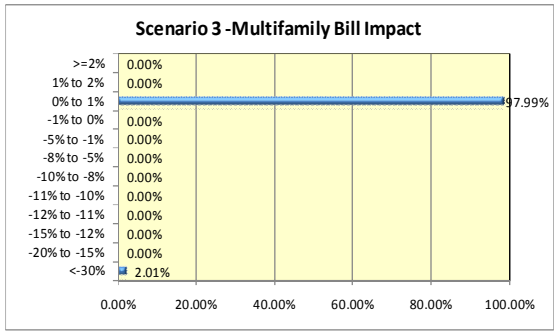
Scenario 3 -Multifamily Bill Impact
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-8% to -5% 0.00%
-10% to -8% 0.00%
-11% to -10% 0.00%
-12% to -11% 0.00%
-15% to -12% 0.00%
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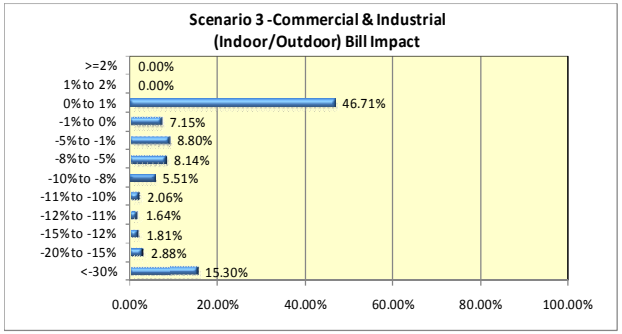
Scenario 3 -Commercial & Industrial
(Indoor/Outdoor) Bill Impact
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-1% to 0% 7.15%
-5% to -1% 8.80%
-8% to -5% 8.14%
-10% to -8% 5.51%
-11% to -10% 2.06%
-12% to -11% 1.64%
-15% to -12% 1.81%
-20% to -15% 2.88%
<-30% 15.30%
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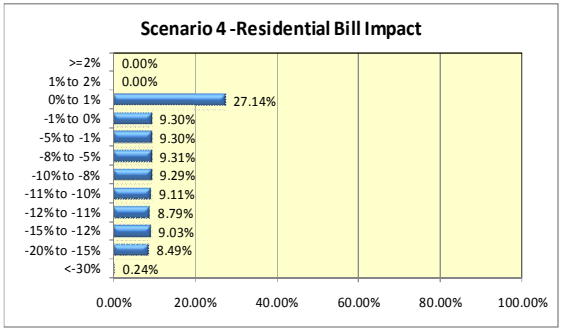
Scenario 4 -Residential Bill Impact
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0% to 1% 27.14%
-1% to 0% 9.30%
-5% to -1% 9.30%
-8% to -5% 9.31%
-10% to -8% 9.29%
-11% to -10% 9.11%
-12% to -11% 8.79%
-15% to -12% 9.03%
-20% to -15% 8.49%
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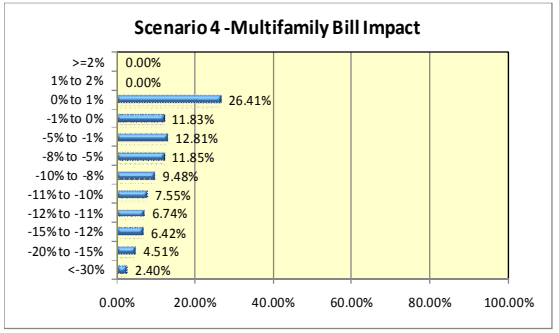
Scenario 4 -Multifamily Bill Impact
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0% to 1% 26.41%
-1% to 0% 11.83%
-5% to -1% 12.81%
-8% to -5% 11.85%
-10% to -8% 9.48%
-11% to -10% 7.55%
-12% to -11% 6.74%
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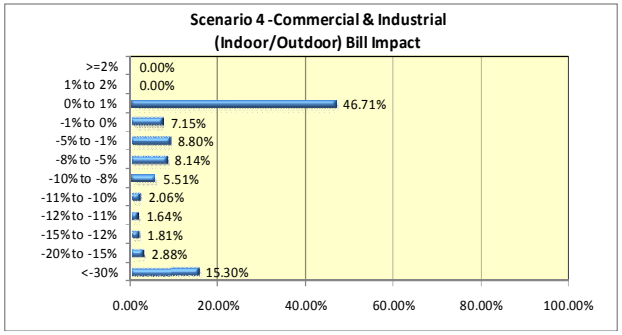
Scenario 4 -Commercial & Industrial
(Indoor/Outdoor) Bill Impact
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0% to 1% 46.71%
-1% to 0% 7.15%
-5% to -1% 8.80%
-8% to -5% 8.14%
-10% to -8% 5.51%
-11% to -10% 2.06%
-12% to -11% 1.64%
-15% to -12% 1.81%
-20% to -15% 2.88%
<-30% 15.30%
0.00% 20.00% 40.00% 60.00% 80.00% 100.00%

RED OAK CONSULTING
A DIVISION OF MALCOLM PIRNIE

DRAFT MEMORANDUM
For Discussion Purposes Only

To: Erin Kintzle, Utilities Financial Analyst
City of Boulder, Colorado

Date: May 20, 2011

From: John Gallagher
Fernando Aranda

Re: Wastewater Rate Structure Analysis

Red Oak Consulting (Red Oak) analyzed four wastewater rate structure alternatives and their associated impacts on billed volume and volumetric revenue. Analysis is based on 2010 water billing data, unadjusted for growth in the number of accounts or billable water volume. Red Oak applied 2010 billing rates to 2010 billable volume to estimate total volumetric revenue. Service charge revenue, not presented in this memorandum, was calculated for purposes of reconciliation to 2010 total wastewater revenues.

Red Oak's analysis modified two components of the City of Boulder's (City) wastewater rate structure:

a. Billed volume methodology (Actual usage vs. Average Winter Consumption)
b. Calculation of Average Winter Consumption (AWC)

Changes in the billed usage methodology apply only to residential and multifamily customer classes; existing billed methodology was not changed for commercial and industrial customer classes. Changes in the calculation of AWC are applied to all customer classes. Impacts of this analysis are summarized in the tabulation below. Attachment A summarizes revenue and billed volume by customer class in further detail.

The following customer classes are billed wastewater charges based on actual usage and are not subject to this analysis:

- Commercial-Industrial Average Monthly Usage
- Commercial-Industrial Historical Monthly Usage

Wastewater Rate Structure Alternatives						
Description	**Billed Volume**	**Variance Increase/(Decrease)** [(a)]		**Volume Revenue**	**Variance Increase/(Decrease)** [(a)]	
	Kgal	**Kgal**	**%**	**$**	**$**	**%**
Scenario 1	3,113,977			$12,022,948		
Scenario 2	3,061,529	(52,448)	(1.68%)	$11,797,740	($225,208)	(1.87%)
Scenario 3	3,050,351	(63.626)	(2.04%)	$11,749,115	($273,833)	(2.28%)
Scenario 4	2,987,023	(126,954)	(4.08%)	$11,505,444	($517,504)	(4.30%)
(a) Variances are in comparison to Scenario 1						

Brief descriptions of scenarios 1 through 4 are presented below:

- ***Scenario 1 (Existing Rate Structure)***
    a. Billed volume equals actual water usage billed during the months January through March and December plus the lower of AWC or actual water use billed for the months April through November.
    b. AWC calculated based on actual water usage, January through March, and December.
- ***Scenario 2***
    a. Billed volume equals the lower of AWC or actual water use billed for the months January through December.
    b. AWC calculated based on water usage during January through March, and December.
- ***Scenario 3***
    a. Billed volume equals actual water usage billed during the months December through February plus the lower of AWC or actual water use billed for the months March through November.
    b. AWC calculated based on actual water usage, December through February.
- ***Scenario 4***
    a. Billed volume equals the lower of AWC or actual water usage billed for the months January through December.
    b. AWC calculated based on actual water usage, December through February.

Wastewater Bill Impact

Each scenario results in different impacts to customers' average wastewater bill. The following tabulation summarizes average changes in bills by class for each scenario.

Average Wastewater Bill Change by Class Under Each Scenario				
Description	Residential	Multifamily	Commercial-Industrial Indoor/Outdoor	Total
Scenario 1	$0.00	$0.00	$0.00	$0.00
Scenario 2	($0.51)	($3.91)	$0.00	($0.77)
Scenario 3	($0.62)	($2.36)	($16.52)	($0.78)
Scenario 4	($1.24)	($8.77)	($16.52)	($1.85)

Attachment B shows the projected percentage of bills impacted for each customer classes.

2012 Revenue Requirements under the Wastewater Scenarios

Red Oak determined average rate increases necessary to meet 2012 revenue requirements under each scenario. City provided 2012 revenue requirements equal $13,179,155 and do not account for changes in billed usage or growth in customer accounts. The below tabulation summarizes average rate increases needed from existing 2011 rates required to meet 2012 revenue requirements. Proper calculation of 2012 rates requires a cost-of-service study that will factor in projected changes in billed usage and customer accounts.

Average Wastewater Rate Increase to Meet 2012 Revenue Requirements	
Description	Average Rate Increase
Scenario 1	2.52%
Scenario 2	4.19%
Scenario 3	4.16%
Scenario 4	6.74%

2012 Water Revenue Impact for Commercial-Industrial Indoor/Outdoor Customers

Based on the City's existing water budget rate structure, scenarios 3 and 4 have an effect on water budget allotments due to changes in the AWC calculation methodology for commercial-industrial indoor/outdoor customers. The resulting impact on water revenues is and additional $5,137 under scenarios 3 and 4, or an increase of 0.03 percent of total water revenues.