

**JOURNAL OF COMMISSION WORK SESSION**  
**March 15, 2016**

City Commission Work Session  
Civic Center, Gibson Room 212

Mayor Kelly presiding

**CALL TO ORDER:** 5:30 p.m.

**CITY COMMISSION MEMBERS PRESENT:** Bob Kelly, Bill Bronson, Bob Jones, Fred Burow and Tracy Houck.

**STAFF PRESENT:** City Manager and Deputy City Manager; City Attorney; Directors of Fiscal Services and Public Works; Public Works Environmental Division Supervisor, Utilities System Manager, City Engineer and Water Plant Supervisor; the City Clerk and Deputy City Clerk.

**\*\* *Action Minutes of the Great Falls City Commission. Please refer to the audio/video recording of this meeting for additional detail. \*\****

**1. PUBLIC COMMENT**

There were no comments from the public

**2. INTRODUCTION AND UPDATE FROM NEIGHBORHOOD COUNCIL # 4**

Mayor Kelly reported that the northern and eastern boundaries of Neighborhood Council (NC) 4 are the City limit line, the southern boundary is 10<sup>th</sup> Avenue South, the western is 36<sup>th</sup> Street from 10<sup>th</sup> Avenue South, north to 9<sup>th</sup> Avenue North, then east to 38<sup>th</sup> Street North, then north to the City limit line. He introduced Sandra Guynn and Curtis Finnicum, NC 4 Chair and Secretary, respectively.

Chairperson Guynn introduced fellow council member, Rudolf Tankink. She reported that Neighborhood Councils 4 and 5 partnered together on community meetings for the eastside retail development center project. Although the Walmart project is not within NC 4 boundaries, it will impact them. It is good to see Walmart breaking land, and their permits in the newspaper today. The council is also thrilled about SuperOne Foods because it will benefit the council. She also noted that NC 4 area is the second safest neighborhood in the City.

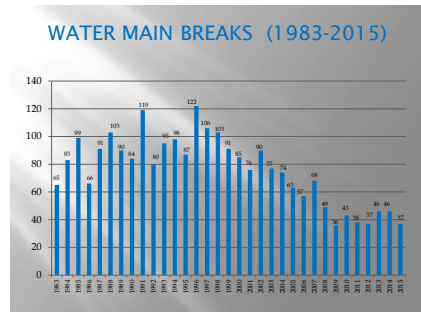
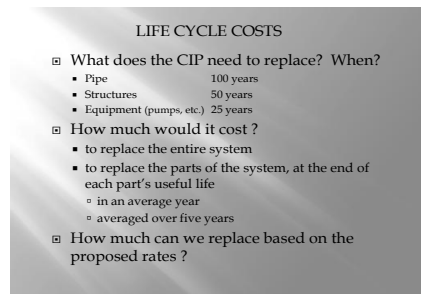
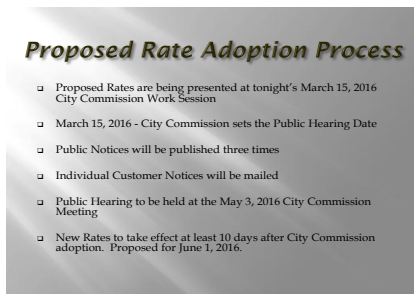
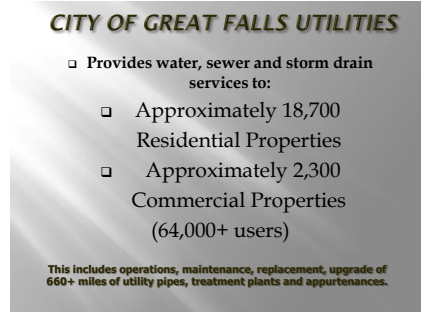
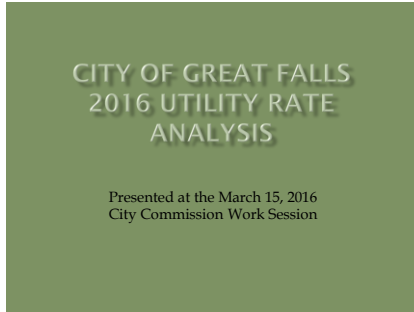
Chairperson Guynn concluded that NC 4 has the most county land within its boundaries. As a professional courtesy, the Council would like to be made aware of county projects, as well as see better communication between City and County governments.

Council Secretary Curtis Finnicum also expressed concerns of not being made aware of county projects until they are already happening.

Mayor Kelly suggested that Council Secretary Finnicum attend County Commission meetings to discuss his concerns with the County Commissioners. He further commented that the County Commission will be asked to notify the appropriate Neighborhood Council of county in-fill projects.

### 3. UTILITY RATE REVIEW

Public Works Director Jim Rearden explained that in the past five to eight years utility rates have been driven by regulatory permit cycles that come every five years. He provided and discussed the following PowerPoint slides on the utility rates:



## WATER MAIN REPLACEMENT

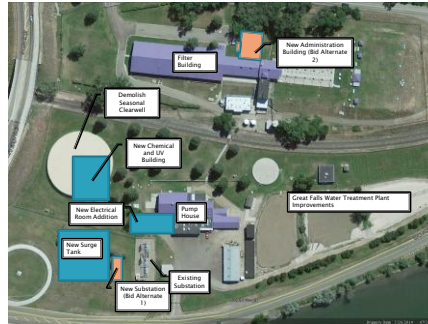
YEAR	COST	FOOTAGE	MILES
2008	\$1,948,587	11,688	2.21
2009	\$2,187,471	17,672	3.35
2010	\$2,335,886	15,923	3.02
2011	\$1,556,083	13,072	2.48
2012	\$1,531,862	9,246	1.75
2013	\$1,680,436	12,831	2.40
2014	\$1,388,989	7,392	1.40
2015	\$1,500,000	4,190	0.79

## WATER TREATMENT DIVISION



## Water Treatment Plant Facility Upgrades

- Project Priorities:
  - Employee Safety
  - Ammonia Feed upgrades
  - Regulatory Compliance
  - UV Disinfection
  - Reliability
    - Replace Main Electrical Switchgear
    - Replace Aging Infrastructure
  - Site security/visitor access
    - Administration Building
    - Substation Upgrades



## Chemical Feed & Disinfection System Upgrades

- Ultraviolet (UV) light disinfection
- Surge Tank
- Chemical Feed and Storage Systems
  - Ammonia
  - Chlorine
  - Lime
  - Corrosion Inhibitor
  - Sulfuric Acid



## Switchgear Replacement

- Existing equipment is 50+ years old.
- Spare part availability is an issue.
- Replacing failed parts requires shutdown of existing system.



## Seasonal Clearwell Replacement

- The current Seasonal Clearwell has deteriorated "structurally" to the point that replacement is the most cost effective action. The new tank will be located West of its current location.
- The storage volume of the Seasonal Clearwell will be incorporated into the new Surge Tank.



## New Administration Building

- Training and conference room
- Receiving area for water quality samples
- Visitor entry and site security
- Staff offices
- Records storage
- Break room



## SLUDGE DEWATERING FACILITY 2018



## Phase 1 - Facilities and Cost Opinion

	Upgrade	Opinion of Probable Construction Cost
Base Project	Wedeco UV disinfection system, Surge Tank, switchgear replacement, ammonia storage and feed replacement	\$21,600,000
Additive Alternate Items:	Administration Building, New access Road	\$1,400,000
	North West Energy Substation	\$ 1,300,000

## Project Schedule

Milestone	Date
Engineering Notice to Proceed	August 2012
Preliminary Engineering Report	February 2015
100% Drawings and Specifications	January 2016
Phase 1 Construction Bid Opening	2nd Quarter 2016 (May)
Phase 1 Construction Complete	2nd Quarter 2018
Future Phase Engineering & Construction	TBD

## Future Phases – Facilities and Cost Opinion

Upgrade	Opinion of Probable Construction Cost (\$M)
Pump Replacement and Rehabilitation	\$ 1,000,000
Additional Chemical Feed Components	\$2,000,000
Low Service Pump Variable Speed Drives and Soft Starters	\$2,000,000
High Service Pump Soft Starters	\$5,000,000
Standby Power Generator for Headhouse, Filter Building and Admin. Building	\$2,000,000
Sulfuric Acid Storage and Feed Building	\$1,000,000
Machine Shop	\$1,000,000
Emergency Power System Upgrades to Operate WTP at 5 mgd	\$5,000,000
<b>TOTAL</b>	<b>\$19,000,000</b>

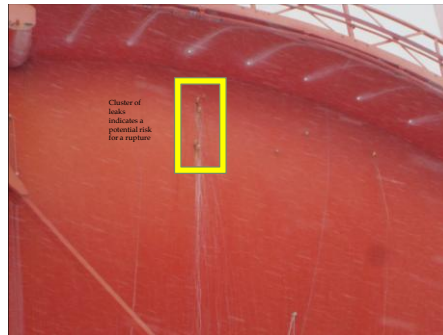
## SKYLINE STORAGE TANK START 2015 COMPLETE 2015



## GORE HILL STORAGE TANK CURRENTLY SCHEDULED FOR RELOCATION AND REPLACEMENT



## Results of Leak



## WATER SYSTEM PRIORITIES

- System Storage
  - Gore Hill Tank
  - East Booster District Storage
- Transmission Mains
  - South River Crossings
  - North System Upsizing/North River Crossing
- Water Plant
  - Electrical Switchgear
  - Filter Upgrades
  - Sludge Handling Facility

City of Great Falls, Montana  
Water Fund  
Cash Flow Analysis as of 3/2/16 - 5 Year Projection (10% revenue increases and 5% expense increases)

	Actuals 2015	Budgeted 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
<b>Beginning Cash Balances</b>	\$5,438,481	\$5,536,051	\$5,152,841	\$5,395,674	\$3,155,067	\$1,048,581	\$307,387
<b>Revenues</b>							
Revenue from water charges	\$11,027,200	\$10,617,159	\$11,678,874	\$12,846,783	\$14,151,438	\$15,544,582	\$17,096,040
Interest income	\$45,584	\$5	\$5,159	\$53,027	\$51,561	\$5,486	\$3,074
Bond proceeds (\$2.7 million)	\$86,086	\$1,713,314					
Bond proceeds (\$2.6 million)			\$10,730,487	\$15,073,402	\$984,113		\$5,000,000
Decrease in receivables							
<b>Total Revenues</b>	\$11,258,870	\$12,356,477	\$22,467,511	\$28,073,192	\$14,767,121	\$15,555,069	\$22,105,114
<b>Expenses</b>							
Operation and maintenance expenses (5%)	\$5,416,126	\$5,619,266	\$5,900,229	\$6,196,241	\$6,505,000	\$6,830,253	\$7,171,709
Increased (decreased) reserve requirements	\$74,091	\$85,106	\$483,354	\$383,610	\$23,576	\$0	\$0
Debt Service							
Existing bonds (GPF 2009)	\$203,610	\$202,010	\$201,360	\$201,640	\$201,842	\$201,842	\$201,842
Existing bonds (GPF 2008)	\$201,820	\$200,985	\$202,220	\$201,870	\$201,325	\$201,025	\$201,025
Existing bonds (GPF 2005)	\$20,713	\$20,283	\$19,660	\$19,470	\$19,366	\$19,366	\$19,366
Bonding bonds for construction (\$2,700,000)	\$123,918	\$170,223	\$172,116	\$172,773	\$173,447	\$173,847	\$175,847
Bonds for construction (\$28,000,000)		\$694,000	\$1,830,000	\$1,830,000	\$1,830,000	\$1,830,000	\$1,830,000
Bonds for construction (\$20,000,000)				\$172,773	\$173,447	\$173,847	\$175,847
Capital improvements debt funded	\$912,685	\$1,648,208	\$12,200,000	\$15,000,000	\$271,537		\$5,000,000
Capital improvements - unrestricted cash	\$1,108,200	\$3,820,870	\$3,100,000	\$6,430,000	\$7,218,455	\$8,300,000	\$9,170,000
<b>Total Expenses</b>	\$7,928,820	\$12,476,629	\$20,626,419	\$22,118,421	\$15,914,128	\$15,925,000	\$19,247,624
<b>Annual Surplus (Deficiency)</b>	(\$33,950)	(\$119,152)	\$2,841,092	\$5,854,771	(\$1,147,007)	(\$376,931)	\$2,857,490
<b>Amount Reserved for Capital Improvements</b>	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000			
<b>Unreserved Cash Balance</b>	\$3,138,051	\$3,102,841	\$3,355,874	\$1,155,067	\$1,048,581	\$307,387	\$1,206,735
<b>Total Cash Balance</b>	\$5,438,481	\$5,102,841	\$5,355,874	\$3,155,067	\$1,048,581	\$307,387	\$1,206,735

## WASTEWATER UTILITY



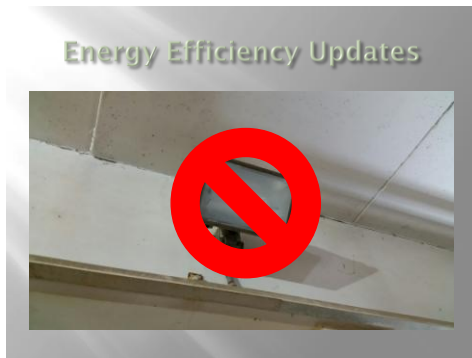
## SANITARY SEWER COLLECTION REHAB AND REPLACEMENT

YEAR	COST	FOOTAGE	MILES	EMER. REPAIRS
2008	\$394,849	5,528	0.76	\$ 0
2009	\$133,494	4,000	1.05	\$149,735
2010	\$536,736	6,420	1.22	\$ 26,616
2011	\$1,218,161	11,475	2.17	\$ 55,745
2012	\$1,223,120	14,760	2.80	\$ 66,846
2013	\$ 373,617	13,882	2.63	\$ 47,815
2015	\$ 448,384	11,574	2.19	\$116,376
2016*	\$ 525,436	15,073	2.85	\$ 54,180



### What is the Dissolved Air Flotation Thickener

- Two large tanks
- About the size of an Olympic swimming pool
- Contain activated sludge collected from the secondary clarifiers
- Supersaturate a side-stream of sludge with air using compressors
- Inject supersaturated side-stream into main process stream
- Supersaturated air condenses into micro air bubbles
- Micro bubbles attach to sludge solids and float to top
- Heavier sludge components sink
- Skimming rakes collect floated sludge
- Bottom rakes collect heavier material
- Thickened sludge is sent to digester
- Water fed back to plant headworks



DAFT Rehabilitation Major Milestones	Estimated Completion Dates
Execute Contract	~3/18/16
Swank Orders Equipment	~3/31/16
Begin Construction Time	~7/15/16
Start-up, Shake-down and Equipment Testing	~9/30/16
Substantial Completion	~10/15/16
Punchlist and Tidy-up	~11/15/16
<b>Final Pay Close-out project</b>	<b>~12/31/16</b>

Account	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1000000000	1000000000	1000000000	1000000000	1000000000	1000000000	1000000000	1000000000	1000000000	1000000000	1000000000	1000000000	1000000000	1000000000	1000000000	1000000000

City of Great Falls, Montana Sewer Fund						
Cash Flow Analysis as of 1/25/2016 - 5 Year Projection (3% revenue increases and 5% expense increases)						
	Actual 2015	Budgeted 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020
Beginning Unrestricted Cash Balance	\$4,122,785	\$5,536,051	\$1,844,128	\$1,264,633	\$1,193,837	\$552,481
<b>Revenues</b>						
Revenue from sewer charges	\$9,944,906	\$9,962,673	\$9,849,400	\$10,144,934	\$10,449,262	\$10,762,760
Extra strength charge	\$754,885	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000
Storm drain and water sludge	\$154,769	\$154,769	\$153,088	\$153,088	\$153,088	\$153,088
Miscellaneous revenue	\$49,153	\$90,860	\$91,870	\$92,788	\$93,716	\$94,653
Decrease in receivables	\$4,534,610	\$396,000	\$0	\$0	\$0	\$0
Bond proceeds / other financing sources	\$10,438,323	\$10,894,302	\$10,729,918	\$11,091,325	\$11,398,096	\$11,711,011
<b>Total Revenue</b>	<b>\$24,435,323</b>	<b>\$24,894,302</b>	<b>\$24,729,918</b>	<b>\$25,191,325</b>	<b>\$25,741,011</b>	<b>\$26,321,841</b>
<b>Expenses</b>						
Operation and maintenance expense	\$5,314,345	\$5,765,750	\$6,054,028	\$6,396,729	\$6,674,576	\$7,008,328
Increased Reserve Requirement	\$340,096	\$19,300	\$0	\$0	\$0	\$0
Decrease in Payables	\$164,188					
Debt Service						
Bonds 2002 (SRF)	\$682,580	\$682,700	\$682,580	\$682,580	\$682,580	\$682,580
Bonds 2006	\$381,196	\$795,196	\$741,196	\$728,196	\$681,196	\$651,196
New Bonds (APRA - SRF)	\$20,515	\$20,515	\$20,515	\$20,515	\$20,515	\$20,515
New Bonds SRF - \$3,800,000	\$253,280	\$254,765	\$254,085	\$254,085	\$254,085	\$254,085
New Bonds \$14,168,000	\$945,749	\$947,000	\$947,000	\$947,000	\$947,000	\$947,000
Capital Improvements - Debt Funded	\$4,194,514	\$396,000	\$0	\$0	\$0	\$0
Capital Improvements - Unrestricted Cash	\$1,827,694	\$5,653,699	\$2,729,000	\$2,129,000	\$2,729,000	\$1,826,000
<b>Total Expenses</b>	<b>\$14,023,057</b>	<b>\$14,498,225</b>	<b>\$11,874,414</b>	<b>\$11,762,115</b>	<b>\$12,024,826</b>	<b>\$11,631,913</b>
<b>Annual Surplus (Deficiency)</b>	<b>\$10,412,266</b>	<b>\$10,396,077</b>	<b>\$12,855,504</b>	<b>\$13,429,210</b>	<b>\$13,716,185</b>	<b>\$14,689,928</b>
Ending Unrestricted Cash Balance	\$5,536,051	\$1,844,128	\$1,264,633	\$1,193,837	\$552,481	\$2,383,596



**18th Street South Storm Drain Improvements**

**Completed Work**

- Phase 1A: Sand Hills Pond Expansion (Fall of 2013) (\$325,000)
- Phase 1B: First Phase of Pipe and Inlet Improvements (Summer of 2014) (\$1,965,000)
- Phase 3: Chouven Park Pond (Fall of 2014) (\$262,000)
- Phase 4: UGF Pond (Fall of 2015) (\$789,000)

**Future Work**

- Phase 2A: Second Phase of Pipe and Inlet Improvements (Planned Summer of 2016) (Estimated at \$2,500,000)
- Phase 2B: Final Phases of Pipe and Inlet Improvements (Planned over the next 10 years) (Estimated at \$4,000,000)

SAND HILLS POND EXPANSION



UGF POND



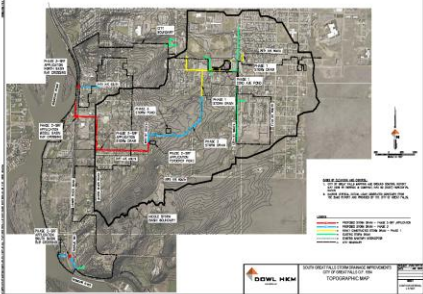
Verde Park



Hydrodynamic Separator



SOUTH GREAT FALLS STORM DRAIN



### Municipal Small Separate Storm Sewer (MS-4) Program

- ✓ Updated discharge permit issued by DEQ on or before 1/1/2017
- ✓ The affect
  - Storm Water Management Plan update
  - BMP Design Manual
  - Ordinance Update

# Stormwater Management Plan

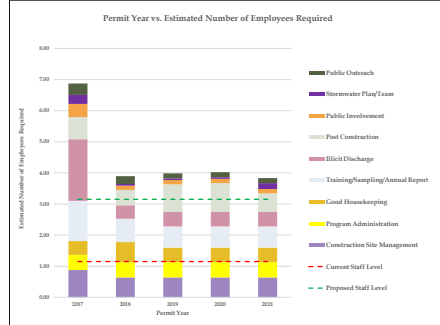
- Includes 6 stormwater quality minimum control measures required by regulation.
- New Stuff Required by the Permit
  - Special consideration for impaired waters.
  - Overhaul our approach to 6 minimum control measures.
  - Public participation
- Implementation = Time and \$\$\$\$\$\$\$\$\$\$

## BMP Manual

- Permit requires City to:
  - Regulate construction site runoff.
  - Retain this runoff from the first 0.5 inches of rainfall.
  - Implement Low Impact Development (LID) practices.
- The BMP design manual will:
  - Outline City's policy and program for regulating discharges from construction sites to the City storm drain.
  - Outline the City's policy and program for review and approval of low impact development storm water quality.
  - Include basic design guidance to meet policy and program requirements.



## RESIDENTIAL LOW IMPACT DEVELOPMENT



Category	2007	2008	2009	2010	2011	2012
Public Outreach	100	100	100	100	100	100
Stormwater Plan/Team	100	100	100	100	100	100
Public Involvement	100	100	100	100	100	100
Post Construction	100	100	100	100	100	100
Erosion Discharge	100	100	100	100	100	100
Training/Sampling/Annual Report	100	100	100	100	100	100
Good Housekeeping	100	100	100	100	100	100
Program Administration	100	100	100	100	100	100
Construction Site Management	100	100	100	100	100	100
Current Staff Level	100	100	100	100	100	100
Proposed Staff Level	100	100	100	100	100	100

	Actuals 2015	Budgeted 2016	Proposed 2017 (10% increase)	Proposed 2018 (5% increase)	Proposed 2019 (5% increase)	Proposed 2020 (5% increase)	Proposed 2021 (5% increase)
<b>Beginning Unavailable Cash Balance</b>	\$2,712,212	\$1,673,737	\$1,430,549	\$1,620,338	\$1,340,538	\$1,728,399	\$1,456,119
<b>Revenues</b>							
Revenue from storm drain charges	\$1,983,089	\$2,362,261	\$2,289,021	\$2,495,494	\$2,520,289	\$2,791,262	\$2,869,847
Interest income	\$0	\$0	\$7,462	\$8,162	\$8,961	\$9,661	\$1,041
Grant proceeds	\$0	\$2,820,000	\$3,080,000	\$0	\$0	\$0	\$0
<b>Total Revenues</b>	\$1,983,089	\$4,982,261	\$4,776,483	\$2,503,656	\$2,529,250	\$2,791,262	\$2,870,847
<b>Expenses</b>							
Collection and maintenance expense	\$453,797	\$446,699	\$695,342	\$710,839	\$737,893	\$774,847	\$813,589
Increase/Decrease in reserve requirement	\$0	\$96,000	\$215,000	\$0	\$0	\$0	\$0
Overhead & indirect charges	\$62,297	\$0	\$0	\$0	\$0	\$0	\$0
Other Service	\$286,528	\$286,373	\$286,736	\$286,373	\$286,736	\$286,736	\$286,736
Bonds for construction \$5,000,000	\$159,607	\$159,607	\$179,214	\$179,214	\$179,214	\$179,214	\$179,214
Capital improvements - debt funded	\$2,580,000	\$2,580,000	\$2,680,000	\$2,720,000	\$2,760,000	\$2,800,000	\$2,840,000
Capital improvements - unrestricted cash	\$2,748,722	\$1,788,997	\$1,788,997	\$1,788,997	\$1,788,997	\$1,788,997	\$1,788,997
<b>Total Expenses</b>	\$3,990,343	\$4,859,673	\$4,545,282	\$4,185,139	\$4,442,893	\$4,633,793	\$4,800,529
<b>Annual Surplus (Deficiency)</b>	\$1,052,476	\$1,122,588	\$1,231,201	\$318,517	\$886,357	\$1,157,469	\$1,070,318
<b>Ending Unavailable Cash Balance</b>	\$1,673,737	\$1,430,549	\$1,620,338	\$1,340,538	\$1,728,399	\$1,456,119	\$1,682,707

# 2015 UTILITY SERVICE RATE SUMMARY

## AVERAGE MONTHLY UTILITY BILL CITY OF GREAT FALLS RESIDENTIAL

1" meter, 1250 ccf water, 650ccf sewer  
7, 500 sq foot residential lot

	2014	2015	2016 (Proposed)	INCREASE
<b>WATER</b>	\$30.05	\$2.13	\$35.34	\$3.21
<b>SEWER</b>	\$22.90	\$3.57	\$24.28	\$0.71
<b>STORM DRAIN</b>	\$4.27	\$4.70	\$5.17	\$0.47
<b>TOTAL</b>	\$57.22	\$6.44	\$64.79	\$4.39

## 2016 CITY COMPARISON (Residential)

Monthly water and sewer costs based on:  
1" meter, 1250 ccf water, 650 ccf sewer  
(With 10% Increase Water & 3% Increase Sewer)

	WATER	SEWER	TOTAL	ANN.DIFF
<b>BOZEMAN</b>	56.10	37.53	90.11	3.52
<b>MISSOULA</b>	69.41	19.80	88.73	0.48
<b>KALISPELL</b>	46.17	40.12	86.29	0.00
<b>BUTTE</b>	50.58	27.50	78.08	2.50
<b>BILLINGS</b>	40.38	28.35	68.73	4.39
<b>HELENA</b>	38.15	24.53	62.68	0.27
<b>GREAT FALLS</b>	35.34	24.28	59.62	3.92



2016 CITY COMPARISON (Commercial)  
 Monthly water and sewer costs based on:  
 1" meter, 1250 ccf water, 1250 ccf sewer  
 (With 10% Increase Water & 3% Increase Sewer)

	WATER	SEWER	TOTAL
KALISPELL	46.17	61.57	107.74
BOZEMAN	43.69	56.92	100.61
MISSOULA	69.41	26.57	95.98
BUTTE	50.58	43.25	93.83
HELENA	41.35	40.97	82.32
BILLINGS	34.01	46.95	80.96
GREAT FALLS	30.90	40.48	71.38

Commissioner Houck inquired if Black Eagle and Malmstrom were considered residential or commercial.

Director Rearden responded that both are considered commercial, wholesale customers.

Commissioner Burow noted that maintenance is under control and the system is in pretty decent shape, but the City keeps getting hit with Department of Environmental Quality (DEQ) regulations.

Director Rearden responded that his concern is, because they have to spend more and more money on regulatory requirements, it leaves less money for upgrading old equipment and facilities especially at the water plant and some transmission mains.

Additional information will be provided to the Commission during the Water Master Plan presentation at a future work session.

Commissioner Houck inquired where the money would be spent if the department was ever to have extra money.

Director Rearden responded that extra money would go towards more replacement of existing facilities and, ultimately, it would go back into the system.

Commissioner Burow noted he would like to be notified when liners are installed in manholes so that he can watch that process.

Commissioner Houck inquired and was informed fourth graders tour the water plant.

#### **4. DISCUSSION OF POTENTIAL UPCOMING WORK SESSION TOPICS**

In response to Manager Doyon, Mayor Kelly commented that during the next work session regarding the River's Edge Trail update, he would also like to hear about what is being planned about the erosion that is happening by Calumet.

The Parking Advisory Commission will also present at the April 5, 2016 work session.

**ADJOURN**

There being no further discussion, Mayor Kelly adjourned the informal work session of March 15, 2016 at 6:48 p.m.