

# 2015 and 2016 Rate Analysis



# Rate Presentation

<b>Light and Power:</b>	Customer Rates
<b>Sanitary Landfill:</b>	Tipping Fees
<b>Storm Drainage:</b>	Drainage and Platting Fees
<b>Water Purification:</b>	Customer Rates
<b>Water Reclamation:</b>	Customer Rates
<b>Streets:</b>	Front Foot Assessment

**Continued investment in our existing infrastructure reduces risk and maintains uninterrupted service.**



**We make large investments upgrading and expanding our utility systems. The use of low-interest loans allows for stable utility rates and positions Sioux Falls for economic development.**





## **We Are On Plan**

- **Proposing two-year rate models for Light & Power, Sanitary Landfill, Water Purification, and Water Reclamation.**
- **Proposing three-year rate model for Storm Drainage.**



# Sioux Falls Light and Power

## 2015 and 2016 Rate Analysis

Trent Lubbers,  
Utility Operations Administrator

# Light and Power Facts

- **Serves small, defined service territory.**
  - Approximately 2600 customers
    - 2100 Private Accounts
    - 500 Governmental Accounts
- **Ten largest customers, by consumption:**

1. Water Purification Plant	6. Washington Pavilion
2. Schools (approx. 14 buildings)	7. Sheraton Sioux Falls
3. SD Air Guard	8. Airport
4. Lakeside Dairy	9. Law Enforcement Center
5. Convention Center	10. Arena
- **Approximately 50% of electricity provided by the Light Department is to public entities.**



# Key Modeling Assumptions

- Cost of purchased power is anticipated to stabilize. Power costs account for 74% of 2015 operating budget.
- Target reserve levels are maintained.
- Upgrade distribution lines to improve reliability and reduce failure risk.
- No current or future debt planned for this utility.

# Priority Light and Power Projects

Circuit Improvements \$1,560,000

- New distribution circuits added to increase capacity and improve reliability.



Electronic Automated Reading System \$ 365,000



Transmission and Substation Upgrades \$1,300,000



# 2015 and 2016 Rate Setting Plan

	<u>2015</u>	<u>2016</u>
2012 Rate Model projected increase	0%	0%
2014 Rate Model projected increase	0%	0%

**No Rate Increase for 2015 and 2016.**



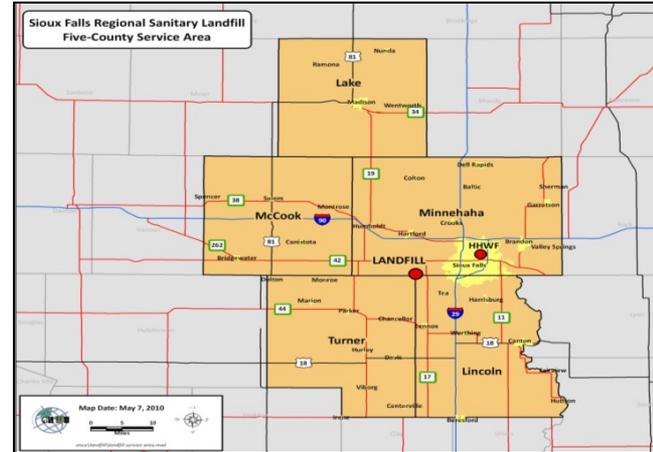
# Sioux Falls Regional Sanitary Landfill

## 2015 and 2016 Tipping Fee Analysis

Dave McElroy, Landfill Superintendent

# Sioux Falls Regional Sanitary Landfill

- Landfill Serves a Five-County Region:
  - Lake
  - Lincoln
  - McCook
  - Minnehaha
  - Turner
- Landfill serves a population of approximately 255,000.
- Landfill located 5 miles west of Sioux Falls on 41<sup>st</sup> Street.



## Municipal Solid Waste (MSW)

- Everyday trash or garbage.



## Construction and Demolition Debris (C&D)

- Debris generated by construction, renovation and demolition.
- Concrete, wood, metals, glass, etc.



# Key Modeling Assumptions

- 1% Increase in Waste Tonnage Annually.
- C&D Material Recovery Facility Operation beginning in 2016.
- MSW Cell 10 Development in 2024 within C&D Landfill Footprint.



# Rate Funded Capital Improvement Projects (2015-2019)

- C&D Material Recovery Facility \$5,574,000
- Leachate Recirculation and Landfill Gas Infrastructure \$1,709,000
- Land Acquisition \$1,181,000
- Composting Facilities Expansion \$ 744,000

# Proposed 2015 and 2016 Tipping Fees – Sanitary Landfill

## **MSW Fee:**

**2015 - \$36.00 per ton (\$1 per ton increase)**

**2016 – No fee increase**

## **C&D Fee:**

**2015 - \$34.00 per ton (\$1 per ton increase)**

**2016 – No fee increase**

## **MSW Fee: Outside the 5 county region**

**2015 - \$64.00 per ton (\$32.50 per ton decrease)**

**2016 – No fee increase**

## **C&D Fee: Outside the 5 county region**

**2015 - \$64.00 per ton (\$32.5 per ton decrease)**

**2016 – No fee increase**

# Proposed 2015 and 2016 Tipping Fees - Sanitary Landfill (continued)

	2014	2015	2016
MSW/C&D - Flat Fee - Truck or 2-Wheel Trailer	\$ 16.00	\$ 18.00	\$ 18.00
MSW/C&D - Flat Fee - Passenger Car	\$ 8.00	\$ 9.00	\$ 9.00
Trailer Houses - per cubic yard	\$ 7.00	\$ 9.00	\$ 9.00
Mattress or box Spring - each		\$ 9.00	\$ 9.00
Yard Waste Leaves - Commercial Haulers, 4-Wheel Trailers, and Trucks - Minimum Charge	\$ 2.00	\$ 5.00	\$ 5.00
Yard Waste Leaves - Passenger Car - Minimum Charge	\$ 2.00	\$ 3.00	\$ 3.00
Wood Waste - Commercial Haulers, 4-Wheel Trailers, and Trucks - Minimum Charge	\$ 2.00	\$ 5.00	\$ 5.00
Wood Waste - Passenger Car - Minimum charge	\$ 2.00	\$ 3.00	\$ 3.00

No change to other fees, including:

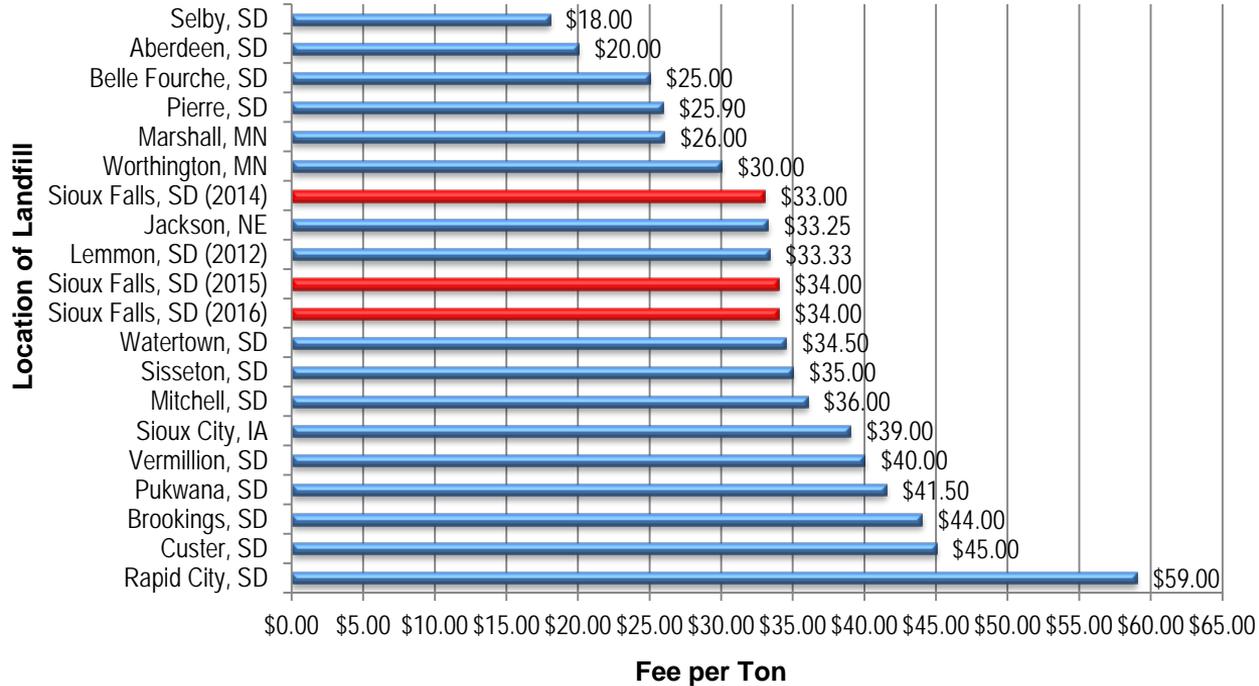
- Tires
- Contaminated Soil
- Appliances
- Electronics
- Asbestos



# Regional Tipping Fees for MSW



# Regional Tipping Fees for C&D Waste



# Policy Clarifications



# Garbage and Recycling Containers

- Garbage and recycling containers should be stored inside, beside or behind the structure (within 3 feet) except the day of collection.
- No containers larger than 125 gallons for single-family residential properties.
- C&D roll off container storage limited to 30 days or valid building permit.
- Solid Waste Planning Board approved.

# Storm Drainage Utility

2015, 2016 and 2017  
Rate Analysis

Andy Berg, Principal Drainage Engineer  
Shawn Gaddie, AE2S Nexus



# Implementation Road Map

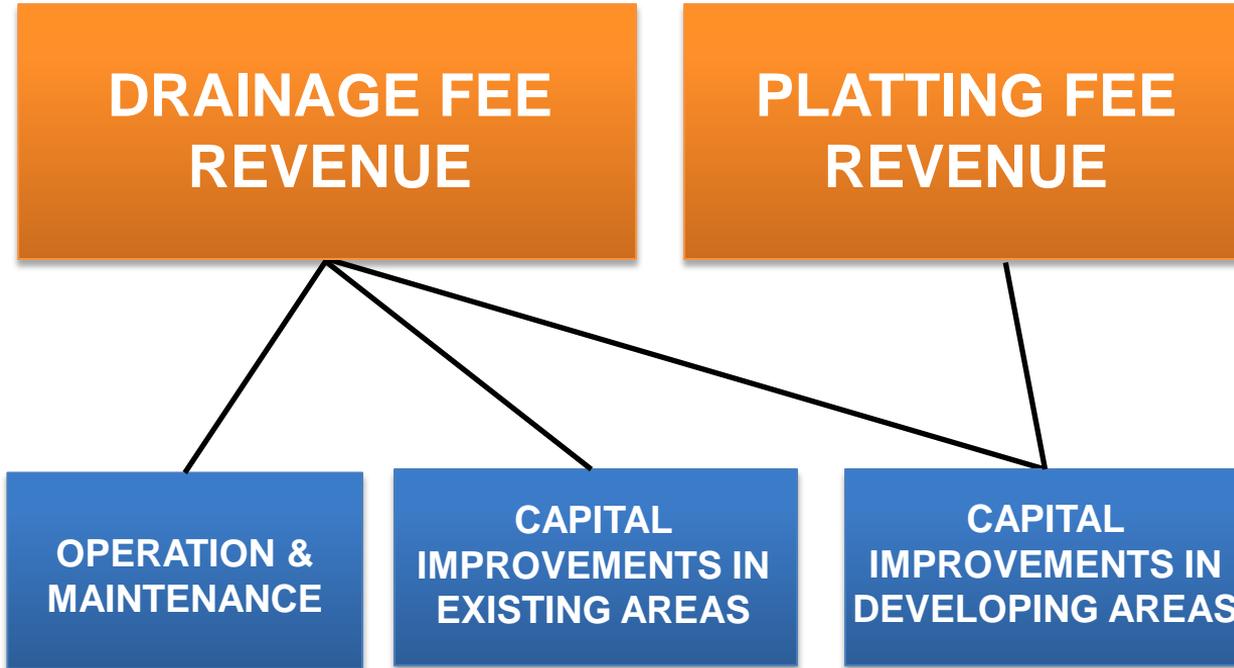
- MAY 7, 2014**  
**Overview with Infrastructure Review and Advisory Board (IRAB)**
- MAY 21, 2014**  
**Follow-up discussion with IRAB and Proposed Action**
- JUNE 3 – JUNE 17, 2014**  
**City Council Approval Process**
- JANUARY 1, 2015**  
**Implementation Date of Rate Recommendations**

# STORM DRAINAGE DIVISION OVERVIEW

- **Instituted in 1982**
- **Mission is to safely convey urban runoff to the Big Sioux River**
- **2003 Stormwater Master Plan addresses regional stormwater needs**
- **Both flood control and water quality elements**
- **Utilizes regional detention facility approach funded by Drainage System Cost Recovery (DSCR); land by Regional Detention Charge (RDC)**
- **Attempts to share costs of regional/oversized facilities 50/50 with developers**



# CURRENT STORM DRAINAGE FUNDING



# CURRENT STORM DRAINAGE FUNDING

## OPERATION & MAINTENANCE

- Maintenance Personnel
- Engineering Personnel
- Storm Sewer & Pond Maintenance
- Mosquito Control
- Contract Maintenance

## CAPITAL IMPROVEMENTS IN EXISTING AREAS

- Repair and Replacement of Aging Infrastructure
- Drainage-way Rehabilitation
- Drainage Studies

## CAPITAL IMPROVEMENTS IN DEVELOPING AREAS

- Infrastructure Oversizing
- Regional BMPs
- Land for Regional Infrastructure

# STORM DRAINAGE FUNDING



**INLETS ARE DETERIORATING FASTER THAN WE CAN FIX THEM**

# STORM DRAINAGE FUNDING



**INLETS ARE DETERIORATING FASTER THAN WE CAN FIX THEM**

# STORM DRAINAGE FUNDING



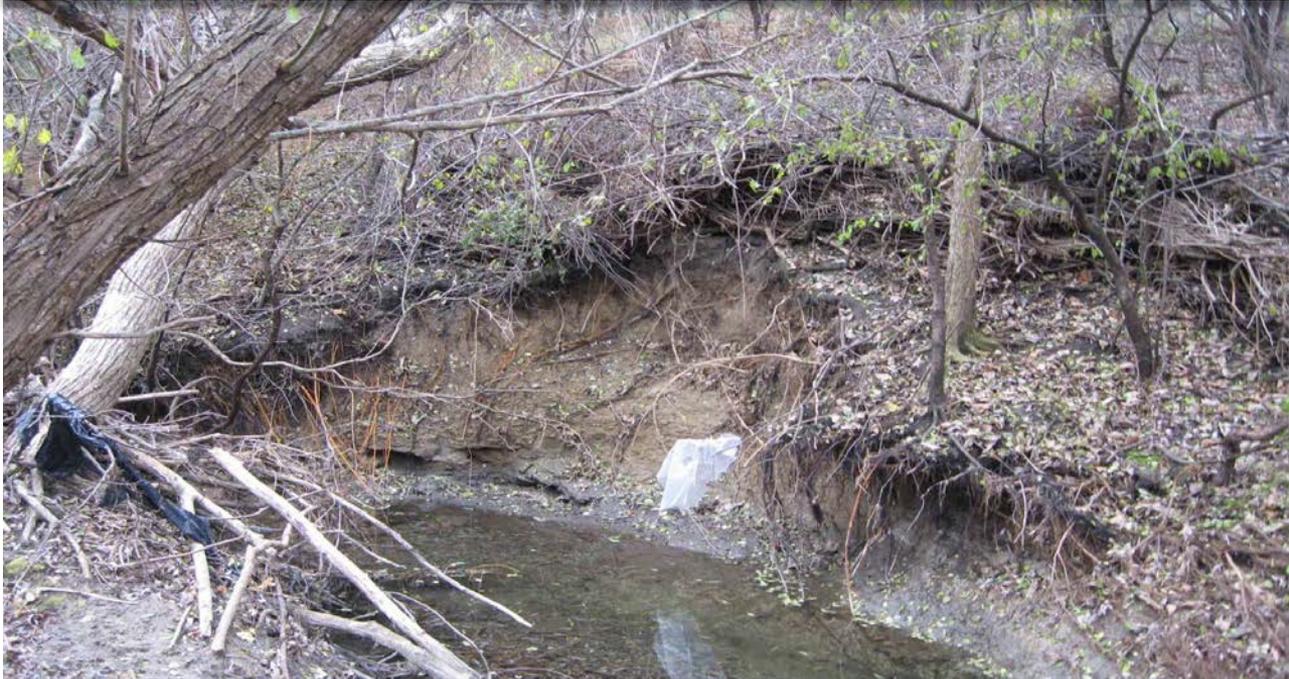
**CLEANING CHANNELS AND PIPES TO REDUCE STREET FLOODING**

# STORM DRAINAGE FUNDING



**STREET SWEEPING TO REDUCE  
SILTATION AND IMPROVE WATER QUALITY**

# STORM DRAINAGE FUNDING



**CHANNEL REHABILITATION**

# STORM DRAINAGE FUNDING



**CHANNEL REHABILITATION**

# STORM DRAINAGE FUNDING



**PROPERTY MAINTENANCE  
(GARBAGE, MOWING, SPRAYING, ETC.)**

# STORM DRAINAGE FUNDING



**PROPERTY MANAGEMENT  
(WETLAND VEGETATION ESTABLISHMENT)**

# STORM DRAINAGE FUNDING



**VECTOR/MOSQUITO CONTROL**

# STORM DRAINAGE FUNDING



**REGIONAL BMP PROGRAM  
(LAND, CONSTRUCTION, MAINTENANCE)**

# STORM DRAINAGE FUNDING



**SUMP PUMP COLLECTION SYSTEMS**

# STORM DRAINAGE FUNDING



**SUMP PUMP COLLECTION SYSTEM RETROFITS**

# THE FUTURE OF STORM DRAINAGE FUNDING



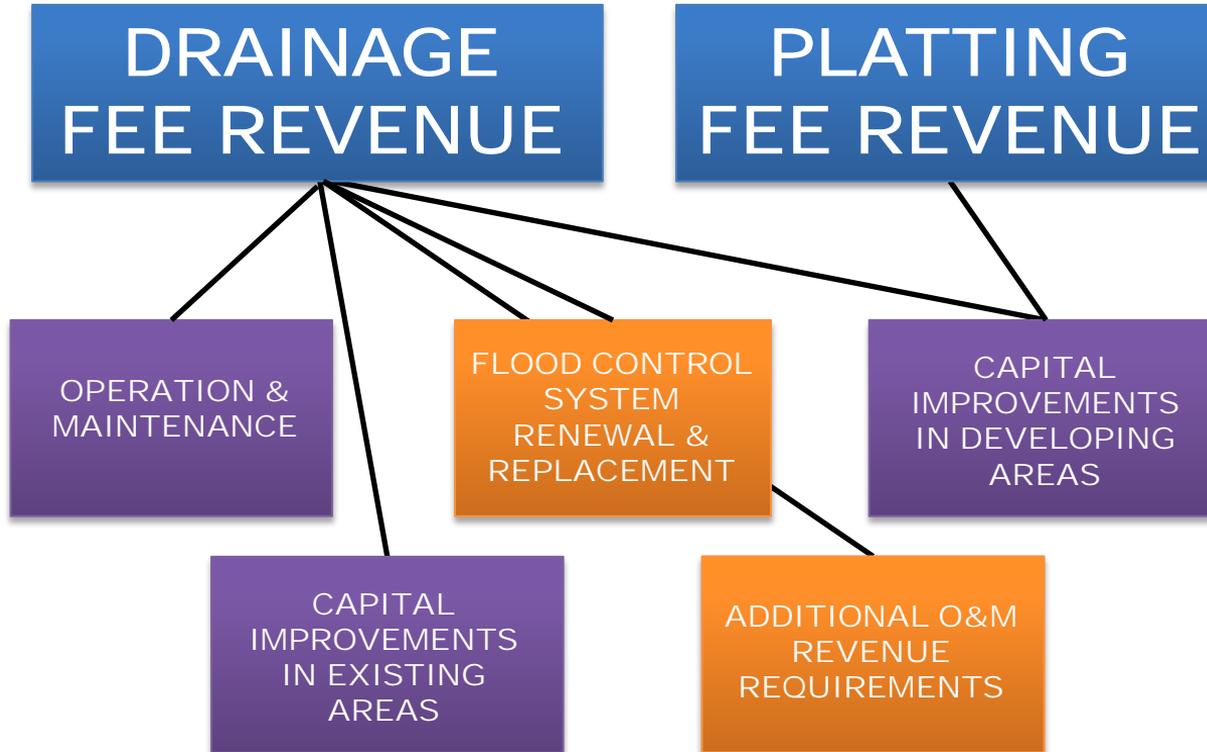
**LEEVE SYSTEM OPERATIONS AND MAINTENANCE**

# THE FUTURE OF STORM DRAINAGE FUNDING



**LEEVE SYSTEMS OPERATIONS AND MAINTENANCE**

# THE FUTURE OF STORM DRAINAGE FUNDING



# STORM DRAINAGE RATE STUDY

- The City retained AE2S in 2008 to conduct a Utility Rate Study for its Storm Drainage division
- Due to 2008-2009 economic conditions, the implementation of Study recommendations was delayed
- In 2013, the City requested an update to the analysis completed in the original study

# STORM DRAINAGE RATE STUDY – DRIVING FORCES

- **Meet Revenue Requirements**
- **Keep up with Growth**
- **Rate Equitability**
- **Establish consistency with funding policy**
- **Address additional demands on drainage fee**



# RATE STUDY COMPONENTS

## COST OF GROWTH ANALYSIS



- Revisit cost analysis and calculations in Stormwater Master Plan
- Determine accuracy of planned developing areas Capital Improvements Plan (CIP)

## RATE DESIGN



- Review assumptions associated with current platting fee calculations
- Recalculate platting fees based on updated and refined data

## REVENUE ADEQUACY ANALYSIS



- Evaluate Drainage Fee Revenue Increase Requirements
- Evaluate overall Financial Health of Utility

# Cost of Growth Analysis

**Currently the City of Sioux Falls charges two platting fees:**

- **Drainage System Cost Recovery (DSCR)**
  - **Construction Costs associated with Growth Related Capital Improvements**
- **Regional Detention Charge (RDC)**
  - **Land Costs associated with Acquisition of Land for Regional Stormwater Improvements**



# Summary of Cost of Growth Analysis and Rate Design Results

## DSCR Summary:

	Original Rate Calculation (2006\$)	Updated Rate Calculation (2013\$)
Cost per Watershed Acre	\$3,577	\$4,073
<b>DSCR SFE</b>	<b>\$1,580</b>	<b>\$1,979</b>

## RDC Summary:

Original Rate Calculation	Original Rate Calculation (2006\$)	Updated Rate Calculation (2013\$)
Cost per Watershed Acre	\$1,727	\$1,667
<b>RDC SFE</b>	<b>\$763</b>	<b>\$810</b>

# PLATTING FEES RECOMMENDATIONS

## DSCR

- Proposed 3 year phase-in of recalculated DSCR

Land Use	Existing Fees 2014	Proposed 2015	Proposed 2016	Proposed 2017
Single Family	\$ 1,579.70	\$ 1,706.08	\$ 1,842.56	\$ 1,978.65
Multi-Family	\$ 3,159.40	\$ 3,412.15	\$ 3,685.12	\$ 3,957.30
Industrial	\$ 3,949.25	\$ 4,265.19	\$ 4,606.41	\$ 4,946.62
Office	\$ 3,159.40	\$ 3,412.15	\$ 3,685.12	\$ 3,957.30
Commercial	\$ 5,213.00	\$ 5,630.04	\$ 6,080.44	\$ 6,529.54
Institutional	\$ 3,159.40	\$ 3,412.15	\$ 3,685.12	\$ 3,957.30
Recreational	\$ -	\$ -	\$ -	\$ -
Agricultural	\$ -	\$ -	\$ -	\$ -

**APPROXIMATELY 8% INCREASE PER YEAR**

# PLATTING FEES RECOMMENDATIONS

## RDC

- **Proposed 3 year phase-in of recalculated RDC**

Land Use	Existing Fees 2014	Proposed 2015	Proposed 2016	Proposed 2017
Single Family	\$ 762.57	\$ 777.82	\$ 793.38	\$ 809.63
Multi-Family	\$ 1,525.13	\$ 1,555.63	\$ 1,586.75	\$ 1,619.27
Industrial	\$ 1,906.41	\$ 1,944.54	\$ 1,983.43	\$ 2,024.08
Office	\$ 1,525.13	\$ 1,555.63	\$ 1,586.75	\$ 1,619.27
Commercial	\$ 2,516.46	\$ 2,566.79	\$ 2,618.12	\$ 2,671.79
Institutional	\$ 1,525.13	\$ 1,555.63	\$ 1,586.75	\$ 1,619.27
Recreational	\$ -	\$ -	\$ -	\$ -
Agricultural	\$ -	\$ -	\$ -	\$ -

**APPROXIMATELY 2% INCREASE PER YEAR**

# DRAINAGE FEE RECOMMENDATIONS

## 2015 – 2017 DRAINAGE FEE RECOMMENDATIONS:

	2015	2016	2017
<b>Unit Charge % Increase*</b>	9%	9%	9%
<b>Typical Residential Bill**</b>	\$36.90	\$40.22	\$43.82

**\*2014 Unit Charge = \$0.000602**

**\*\*7,500 sq ft lot; 2014 Residential Bill = \$33.86**

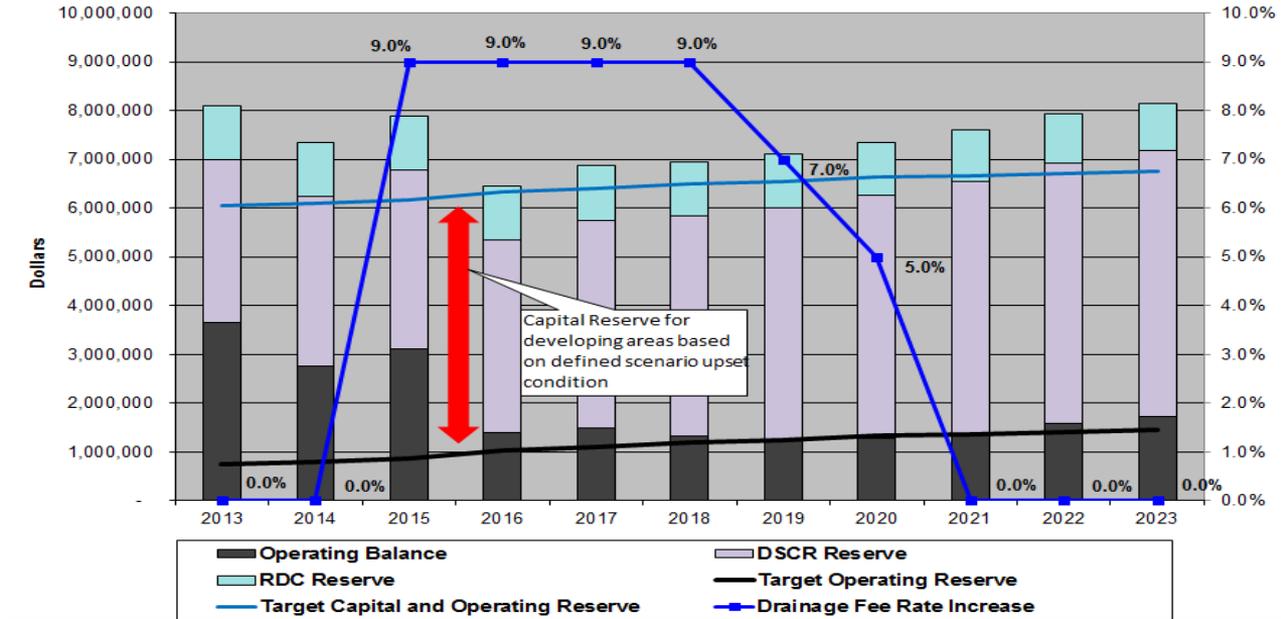
# REVENUE ADEQUACY ANALYSIS

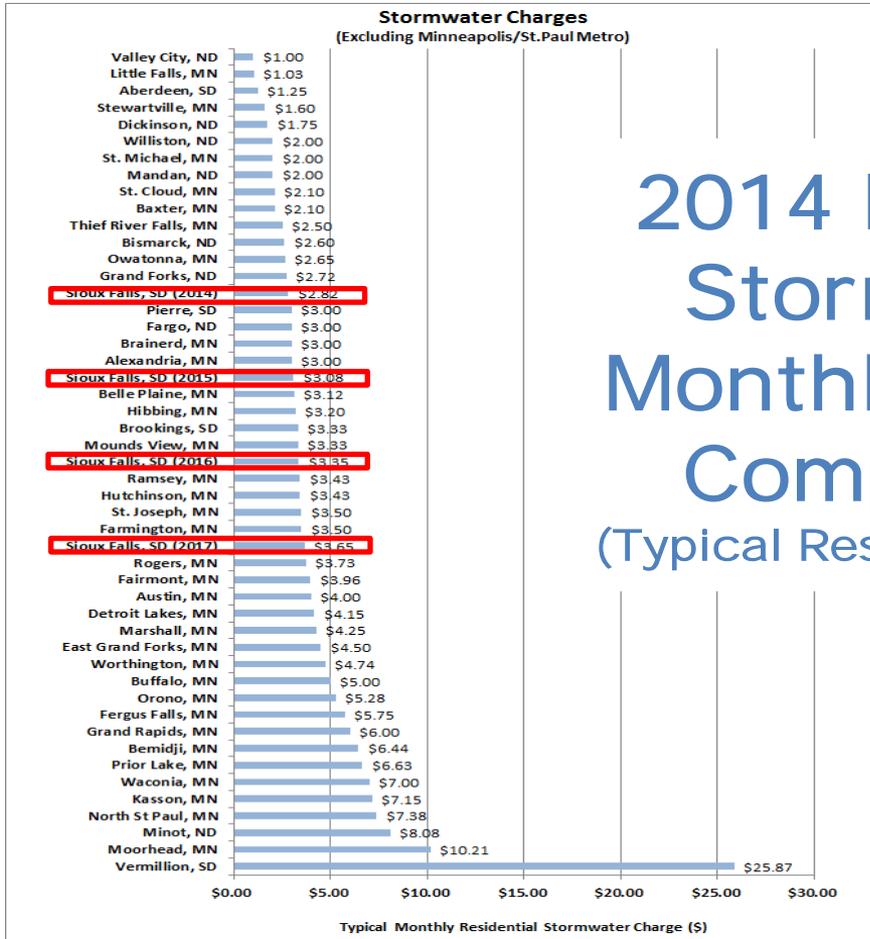
- **Evaluation of overall financial health of the Storm Drainage Fund**
- **Key Components of Revenue Adequacy Analysis Include:**
  1. **Projected Pace of Development**
  2. **Recommended Annual CIP**
  3. **Capital Reserve Target Recommendation**
  4. **New Flood Control Revenue Requirements**
  5. **Additional New O&M**
  6. **Drainage Fee Recommendations**



# REVENUE ADEQUACY RESULTS

City of Sioux Falls Storm Drainage Utility  
 Projected Operating, DSCR and RDC Cash Balances



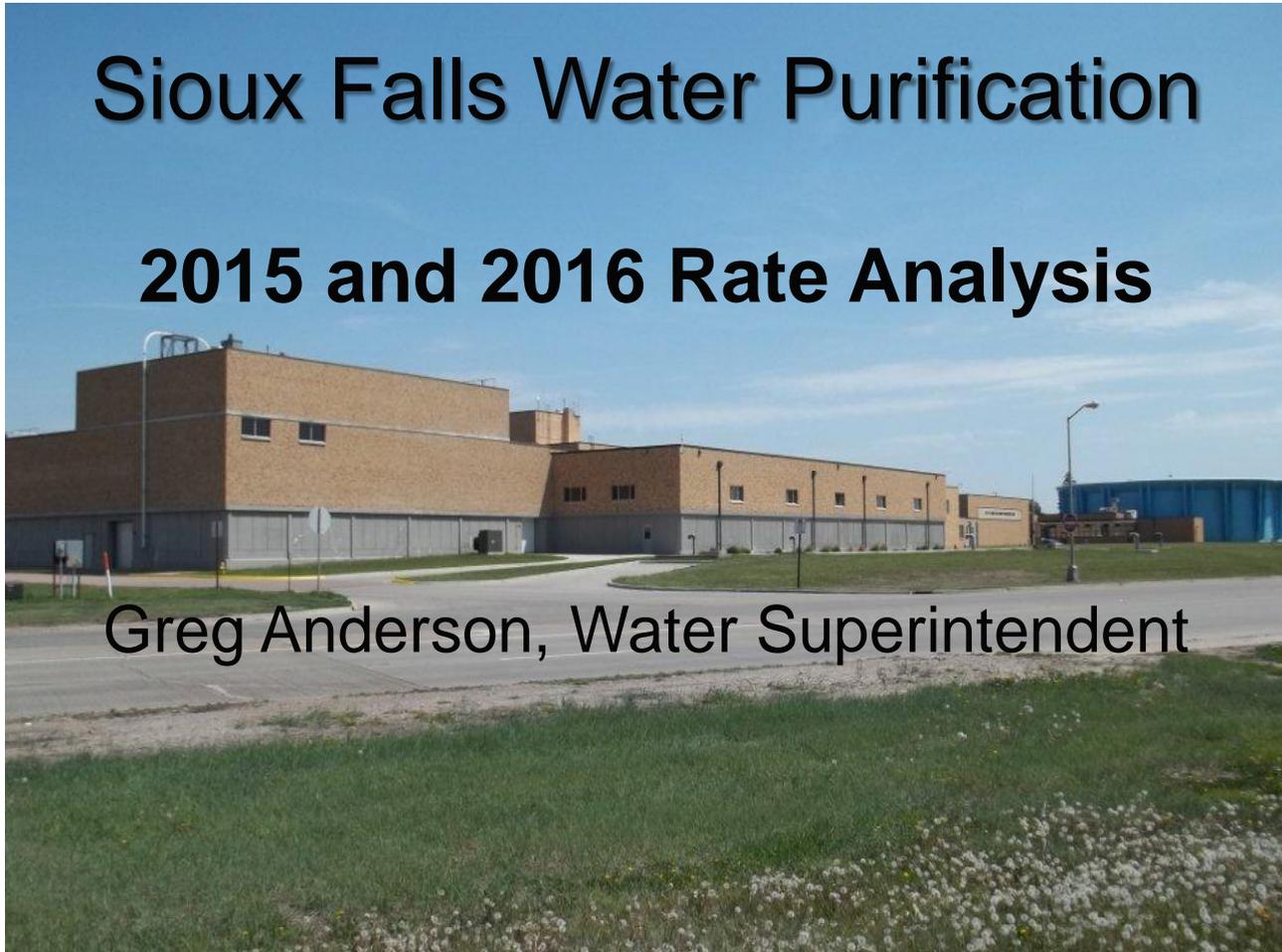


# 2014 Regional Stormwater Monthly Charge Comparison (Typical Residential Charge)

# Sioux Falls Water Purification

## 2015 and 2016 Rate Analysis

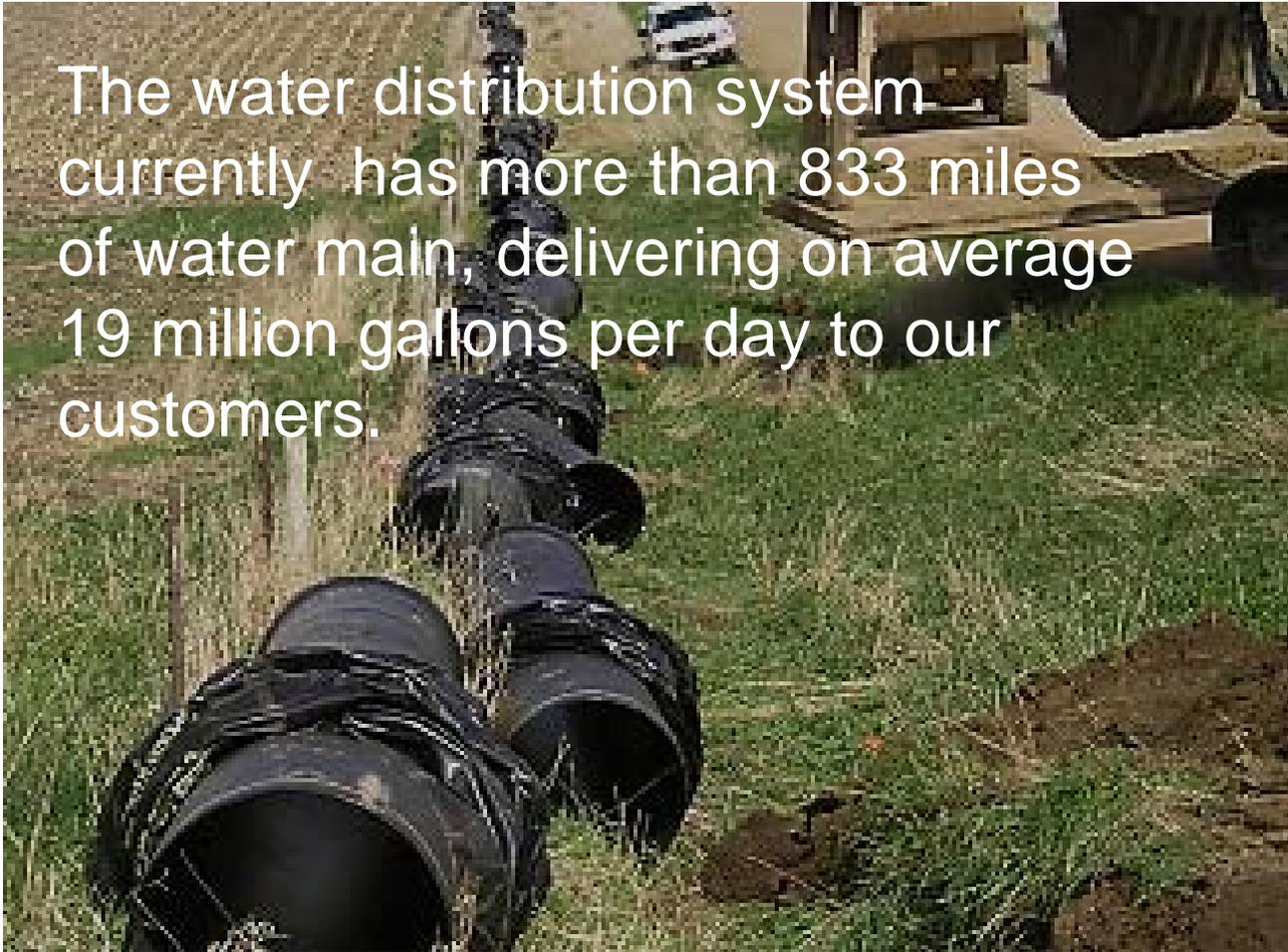
Greg Anderson, Water Superintendent



**Based on the recommended daily consumption of eight glasses of water per day, the City of Sioux Falls can provide that water to you for \$1.57 per customer, annually.**



The water distribution system currently has more than 833 miles of water main, delivering on average 19 million gallons per day to our customers.



# Priority Water Purification Projects 2015 - 2019

- **Repair and Replacement of Infrastructure** **\$ 24.43M**

(Minnesota Avenue Transmission Main and Neighborhood Watermains)



- **New Development** **\$ 28.81M**

(SD Highway 100 Transmission Main, New Elevated and Ground Storage)



- **Investment in Source and Supply** **\$ 11.82M**

(Large Collector Well Improvements)



# 2015 and 2016 Rate Setting Plan

	<u>2015</u>	<u>2016</u>
2012 Rate Model projected increase	4%	4%
2014 Rate Model projected increase	0%	0%

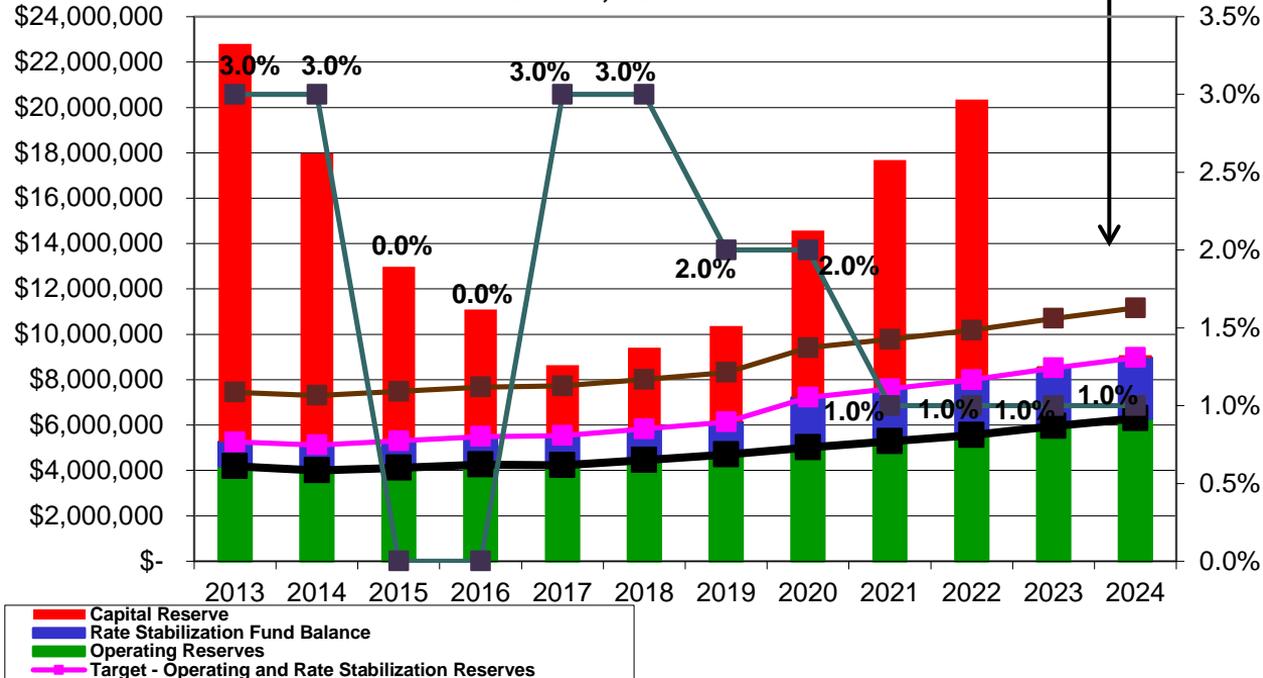
- Under the current 10 year plan, the Water Purification division will decrease their principal outstanding debt by more than \$48 million.

**No Rate Increase for 2015 and 2016.**

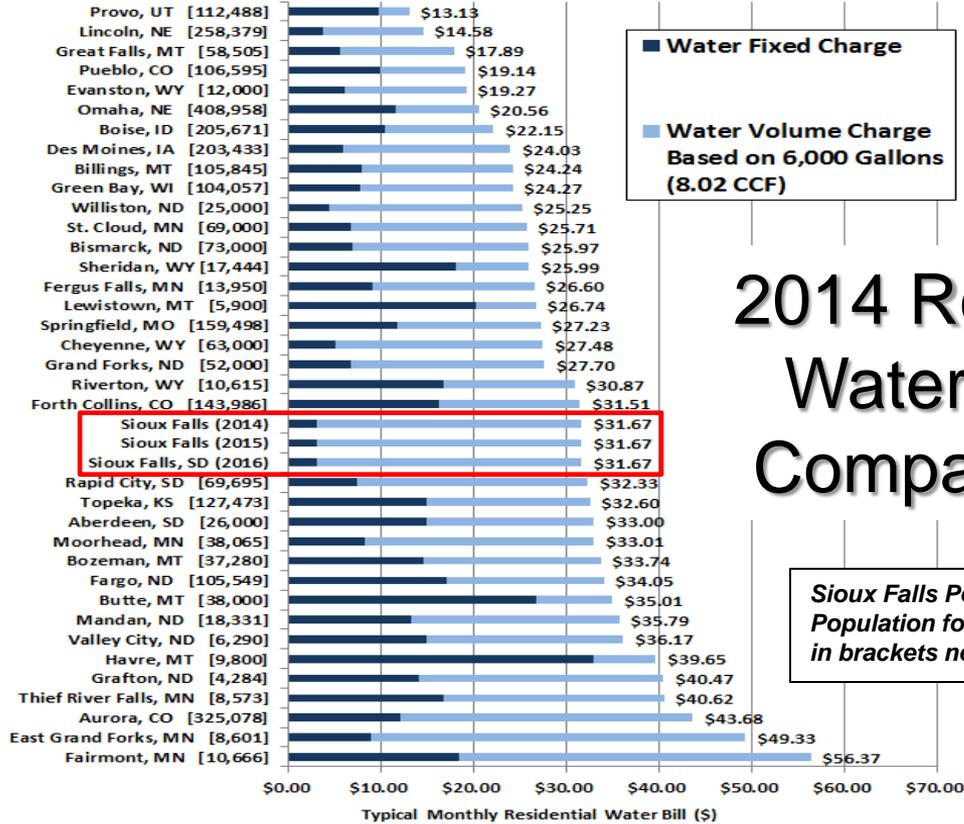
# Cash Targets & Balance Projections

Sioux Falls Water Division  
2015 and 2016 Budget Year Rate Analysis  
June 3, 2014

L&C Final True-up  
and Remaining  
Well Costs



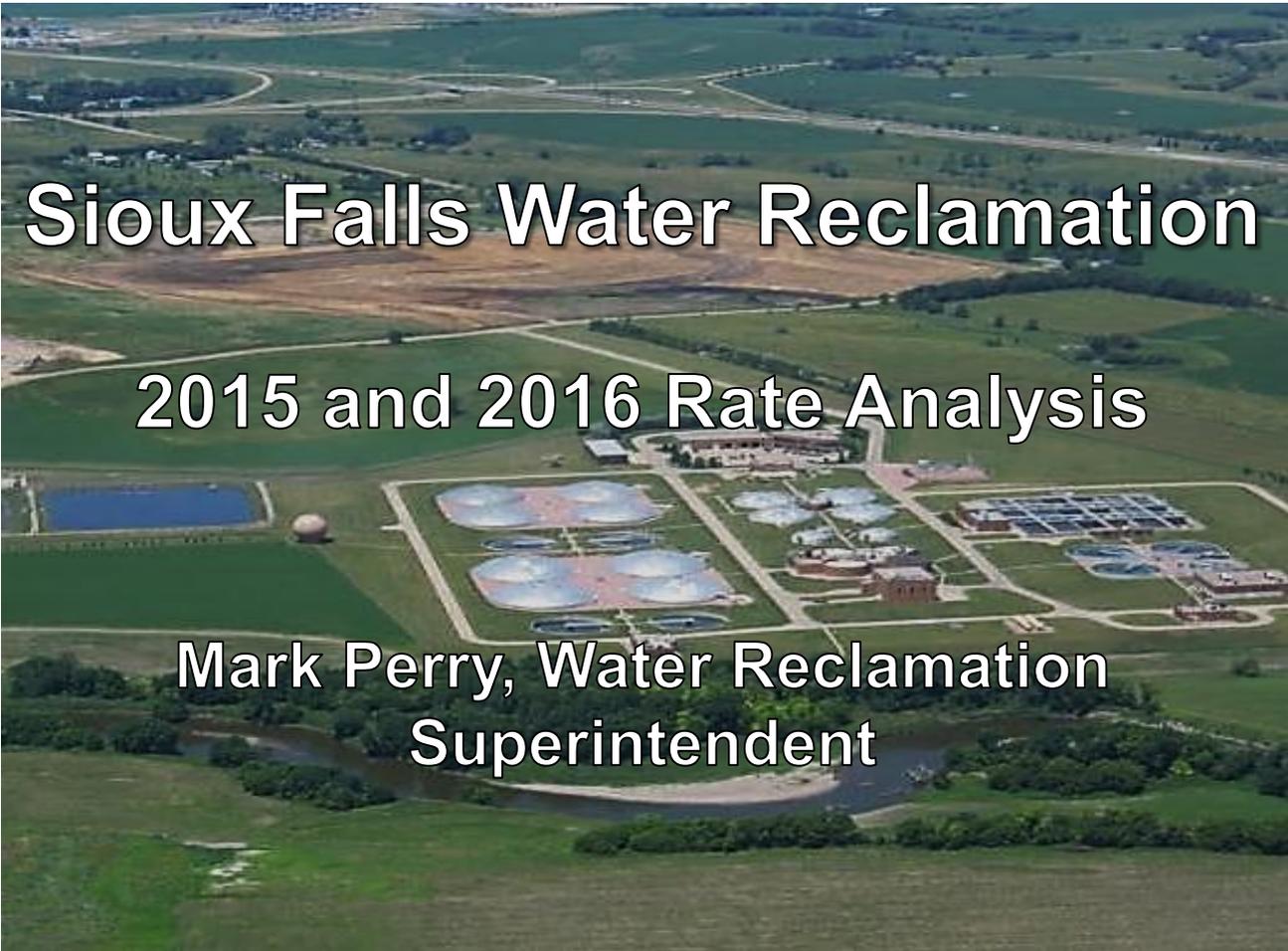
**SURFACE WATER SYSTEMS**  
(Excluding Minneapolis/St.Paul Metro)



■ Water Fixed Charge  
■ Water Volume Charge Based on 6,000 Gallons (8.02 CCF)

# 2014 Regional Water Rate Comparisons

*Sioux Falls Population = 165,000; Population for other cities noted in brackets next to city name*

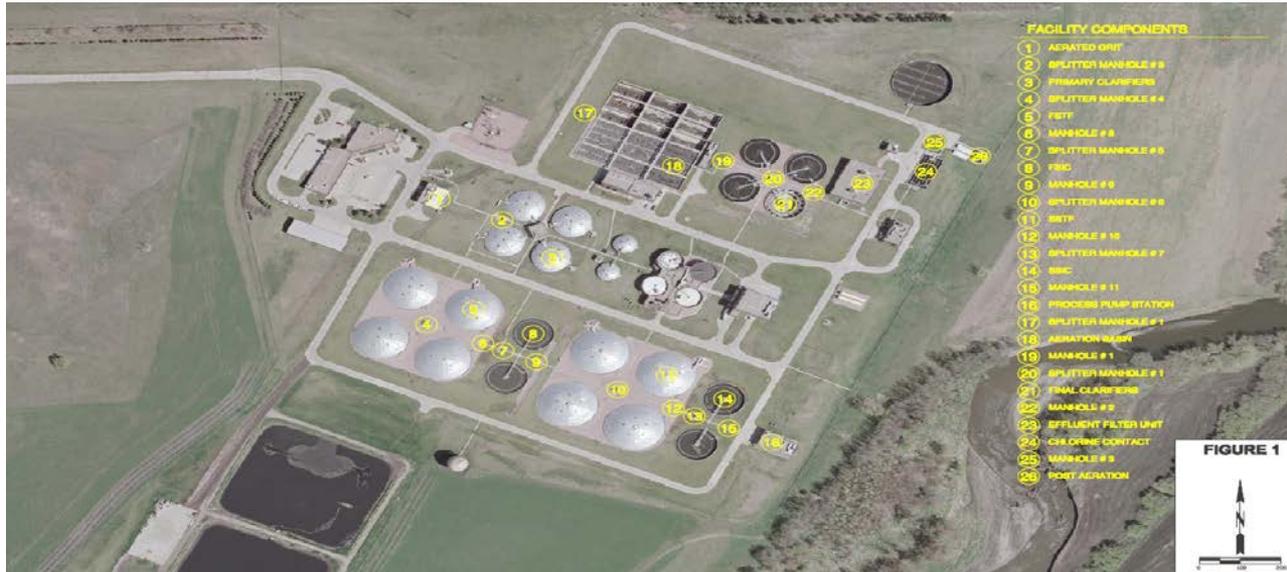


# Sioux Falls Water Reclamation

## 2015 and 2016 Rate Analysis

Mark Perry, Water Reclamation  
Superintendent

# Wastewater Treatment Facility



- ❑ Design Capacity Average Flow – 21 MGD
- ❑ 2013 Average Flow – 16.1 MGD
- ❑ Customers – 50,000+

# Sanitary Sewer Collection System

## 23 Lift Stations

- 4 Major
- 2 Private



## Collection Mains

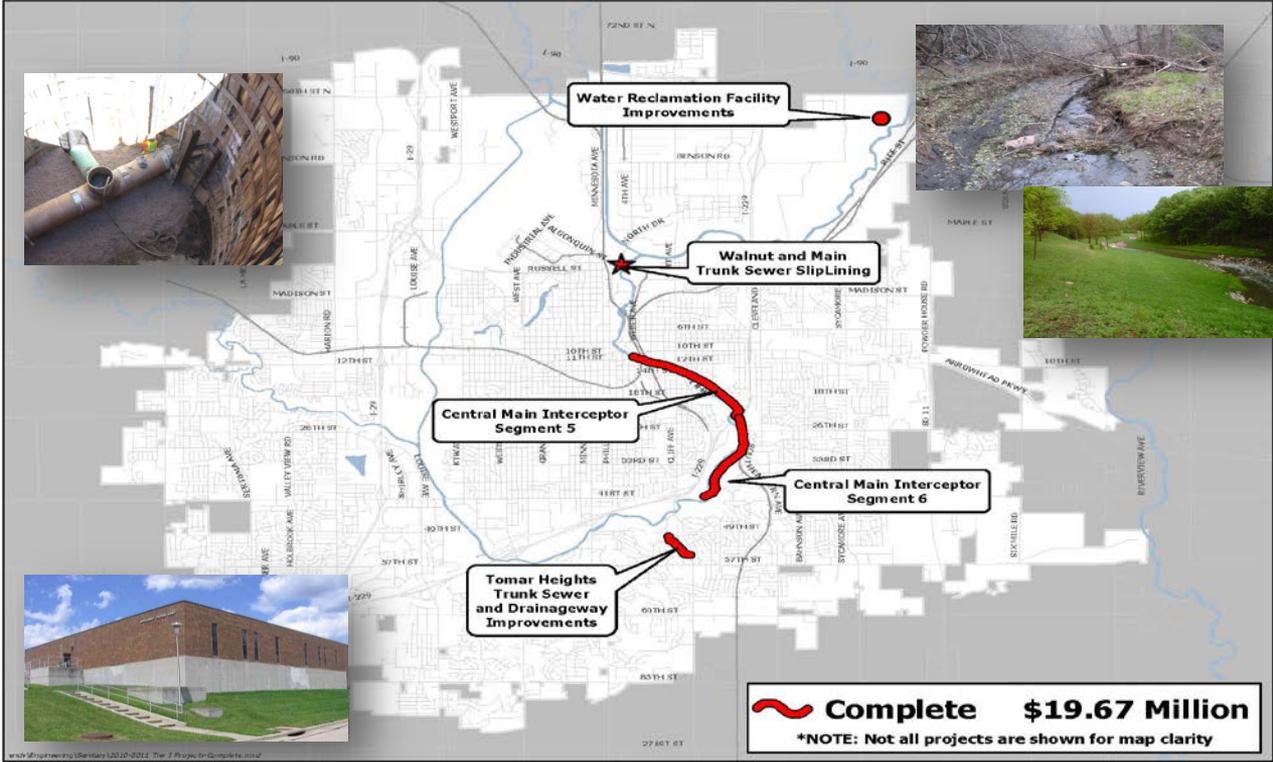
- 836+ Miles
- 6 to 66 Inch Diameter
- 15,000+ Manholes and Structures



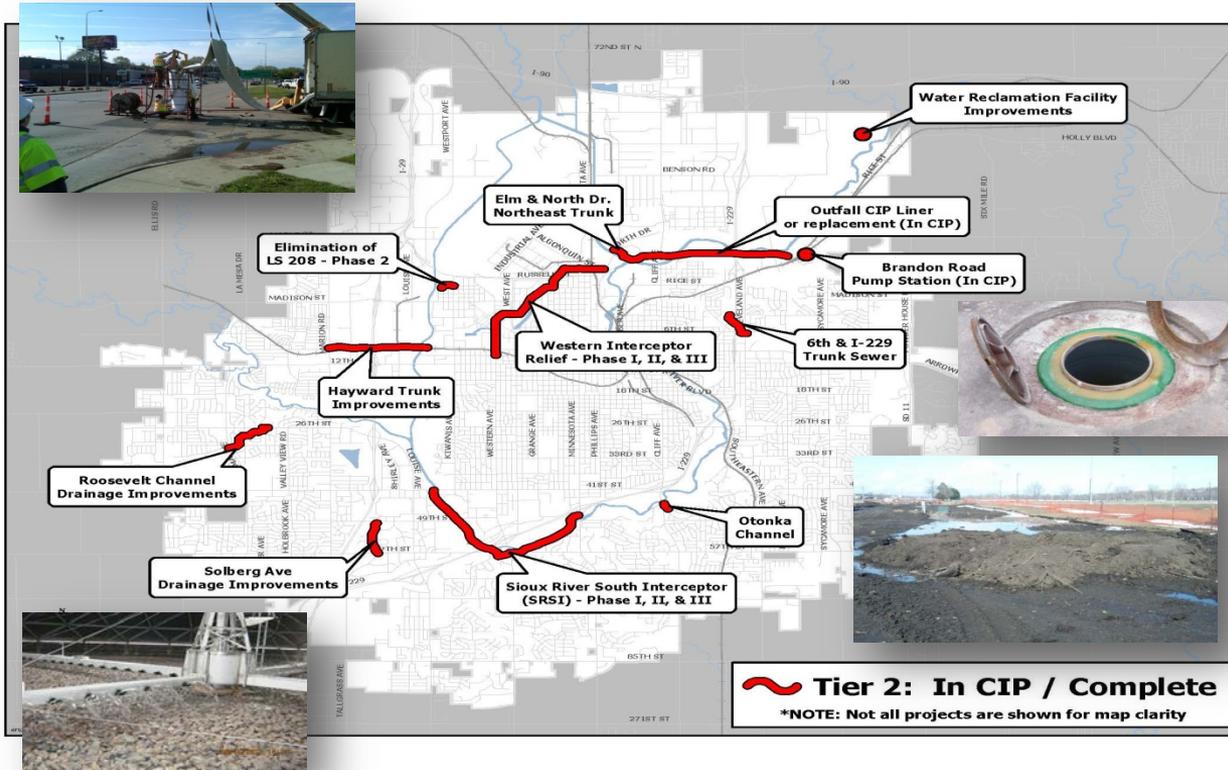
# Sanitary Sewer Collection and Treatment System Assessment and Mitigation

- Project initiated in 2010 after significant rain events caused Sanitary Sewer Overflows (SSO's)
- Tier 1 Projects
  - Were mandated by SD DENR/US EPA
  - All projects completed by July 1, 2012 deadline
- Tier 2 Projects
  - Preliminary list was developed as a part of the assessment
  - Many projects completed, many in CIP, many TBD

# Sanitary Sewer Tier I Projects



# Sanitary Sewer Tier II Projects



# Priority Water Reclamation Projects

- **Brandon Road Pump Station Force Main – 2015** **\$ 11.84M**
- **Outfall Sewer Replacement – 2016** **\$ 16.42M**
- **Brandon Road Pump Station Replacement – 2019 (Design)** **\$ 1.96M**
- **Digester Complex Projects – 2015-2018** **\$ 18.48M**
- **Water Reclamation Yard Piping Improvements – 2015** **\$ 2.00M**
- **Trunk Sewer Extension – 2016-2019** **\$ 11.90M**



# 2015 and 2016 Rate Setting Plan

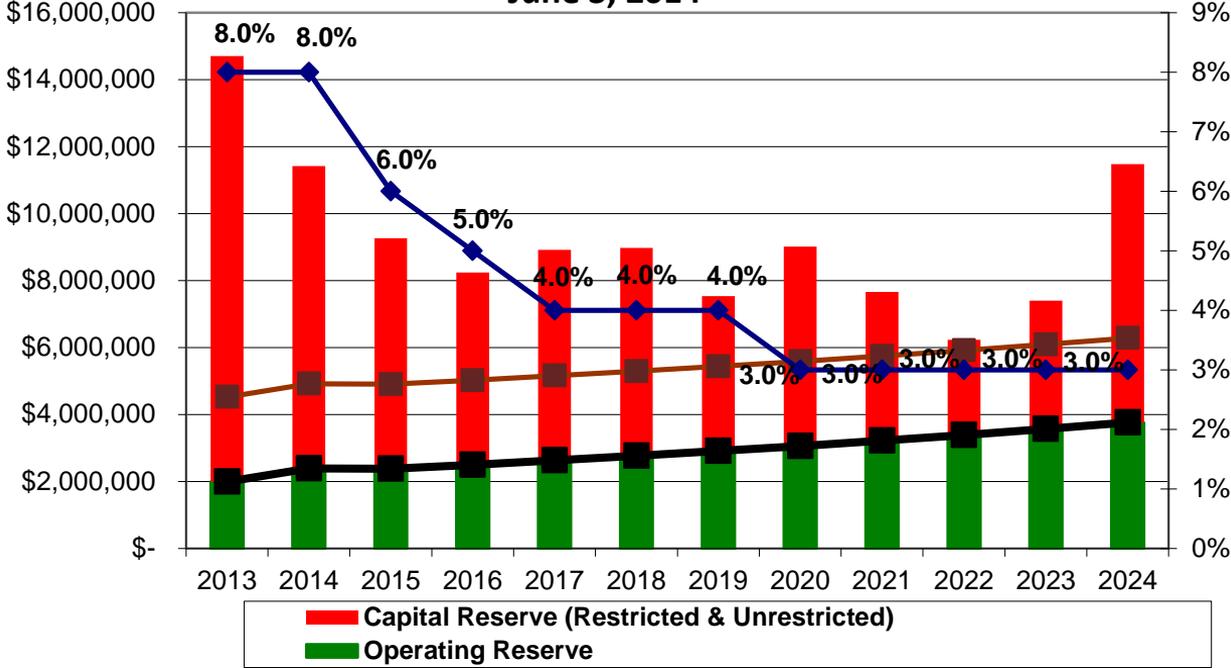
	<u>2015</u>	<u>2016</u>
2012 Rate Model projected increase	7%	4%
2014 Rate Model projected increase	6%	5%

- The Water Reclamation division is highly regulated by State and Federal requirements.

# Cash Targets & Balance Projections

## Sioux Falls Water Reclamation Division 2015 Budget Year Rate Analysis

June 3, 2014



# Proposed 2015 Rates Water Reclamation

		Proposed 2015 Adjustment	2014 Rate	Proposed 2015 Rate	Delta
Residential	Basic Charge	6.0%	\$3.56	\$3.77	\$0.21
	Flow (per CCF*)	6.0%	\$3.35	\$3.55	\$0.20
Commercial	Basic Charge	6.0%	\$15.52	\$16.46	\$0.94
	Flow (per CCF*)	6.0%	\$4.03	\$4.27	\$0.24
Domestic Industrial	Basic Charge	6.0%	\$15.52	\$16.46	\$0.94
	Flow (per kgal**)	6.0%	\$5.39	\$5.72	\$0.33
High Strength Industrial	Basic Charge	2.0%	\$15.60	\$15.91	\$0.31
	Flow (per kgal**)	2.0%	\$1.59	\$1.62	\$0.03

\*CCF = 100 cubic feet = 748 gallons

\*\*kgal = 1,000 gallons

# Proposed 2015 Rates Water Reclamation

		2014 Rate	Proposed 2015 Rate	Delta
Industrial	BOD (per pound)	\$0.2429	\$0.2478	\$0.0049
	TSS (per pound)	\$0.2429	\$0.2429	\$0
	TKN (per pound)	\$0.8904	\$0.9082	\$0.0178
	Grease (per pound)	\$0.8094	\$0.9082	\$0.0988
Outside Customer Rate (per kgal*)		\$4.01	\$4.25	\$0.24
Credit for Flow Equalization (per kgal*)		(\$0.44)	(\$0.47)	(\$0.03)
Credit for Strength Equalization (per kgal*)		(\$0.55)	(\$0.58)	(\$0.03)

\*kgal = 1,000 gallons

# Proposed 2016 Rates Water Reclamation

		Proposed 2016 Adjustment	Proposed 2015 Rate	Proposed 2016 Rate	Delta
Residential	Basic Charge	5%	\$3.77	\$3.96	\$0.19
	Flow (per CCF*)	5%	\$3.55	\$3.73	\$0.18
Commercial	Basic Charge	3%	\$16.46	\$16.95	\$0.49
	Flow (per CCF*)	3%	\$4.27	\$4.40	\$0.13
Domestic Industrial	Basic Charge	3%	\$16.46	\$16.95	\$0.49
	Flow (per kgal**)	3%	\$5.72	\$5.89	\$0.17
High Strength Industrial	Basic Charge	2%	\$15.91	\$16.23	\$0.32
	Flow (per kgal**)	2%	\$1.62	\$1.65	\$0.03

\*CCF = 100 cubic feet = 748 gallons

\*\*kgal = 1,000 gallons

# Proposed 2016 Rates Water Reclamation

		Proposed 2016 Adjustment	Proposed 2015 Rate	Proposed 2016 Rate	Delta
Industrial	BOD (per pound)	2%	\$0.2478	\$0.2527	\$0.0049
	TSS (per pound)	0%	\$0.2429	\$0.2429	\$0
	TKN (per pound)	2%	\$0.9082	\$0.9264	\$0.0182
	Grease (per pound)	2%	\$0.9082	\$0.9264	\$0.0182
Outside Customer Rate (per kgal*)		6%	\$4.25	\$4.51	\$0.26
Credit for Flow Equalization (per kgal*)		6%	(\$0.47)	(\$0.50)	(\$0.03)
Credit for Strength Equalization (per kgal*)		6%	(\$0.58)	(\$0.61)	(\$0.03)

\*kgal = 1,000 gallons

# Typical Monthly Sewer Bill

Proposed 2015 Residential Sewer Rate Increase = 6.0%

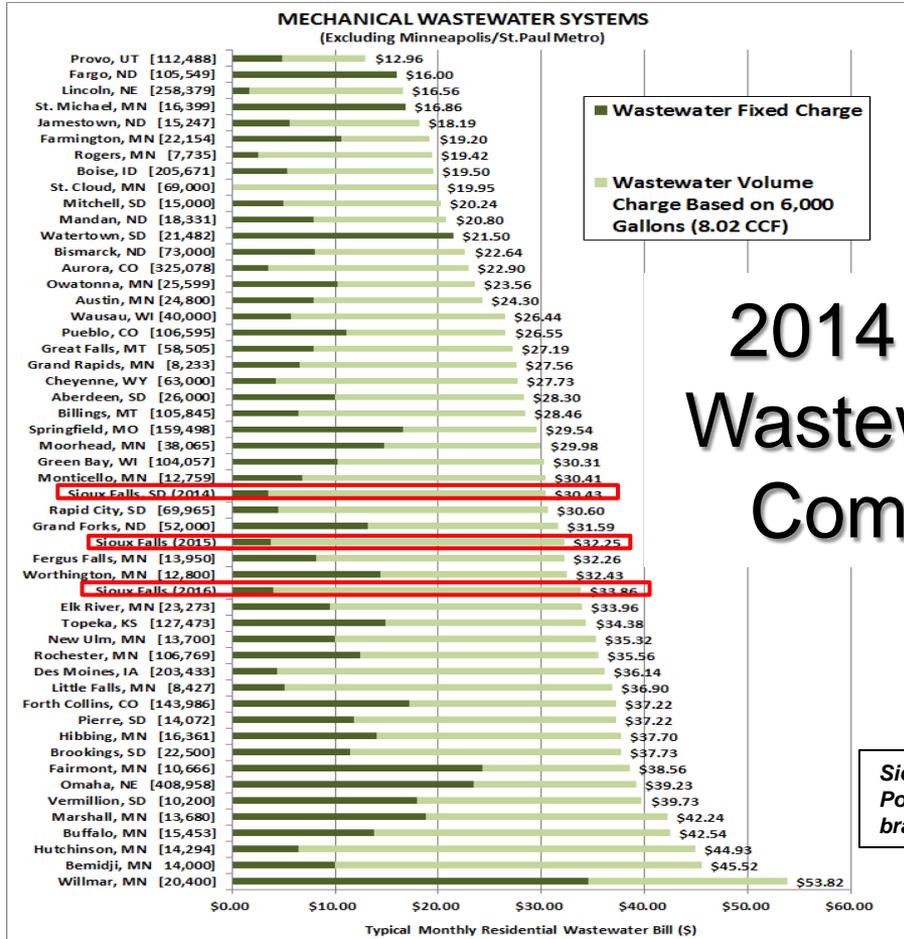
Monthly Consumption in Gallons*	Monthly Consumption in CCF	2014 Monthly Charge	2015 Monthly Increase with 6.0% Adjustment	2015 Monthly Charge
5,310	7.1	\$27.35	\$1.63	\$28.98

\* Average Winter Water Use

Proposed 2016 Residential Sewer Rate Increase = 5.0%

Monthly Consumption in Gallons*	Monthly Consumption in CCF	2015 Monthly Charge	2016 Monthly Increase with 5.0% Adjustment	2016 Monthly Charge
5,310	7.1	\$28.98	\$1.46	\$30.44

\* Average Winter Water Use

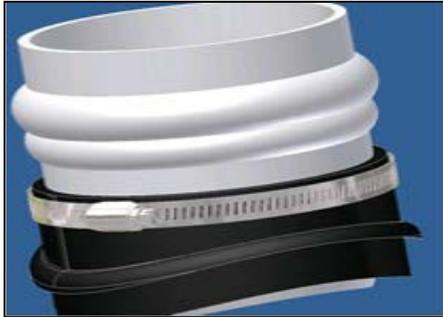


# 2014 Regional Wastewater Rate Comparisons

*Sioux Falls Population = 165,000;  
Population for other cities noted in  
brackets next to city name*

# Water Reclamation Fee Changes

## Sewer Taps



## Smith Taps



# Why Are Changes Required?

- Last updated prior to 2000.
- 2014 labor and material costs are higher than existing fee charges.
- Increases in labor, fuel, energy, transportation, and raw material.

# Proposed Fee Recommendations

## Sewer Service Taps

<b>Size</b>	<b>Current Charges</b>	<b>2015 Proposed Charges</b>	<b>2016 Proposed Charges</b>
4 inch	\$ 149.75	\$ 400.00	\$ 420.00
6 inch	\$ 153.52	\$ 425.00	\$ 450.00



Sioux Falls Street Department

2015 Front Foot  
Assessment Resolution

Galynn Huber, Street/Fleet  
Operations Manager

# History and Rate for Front Foot Assessment

2007	\$0.80
2008	\$0.90
2009	\$1.00
2010	\$1.00
2011	\$1.00
2012	\$1.00
2013	\$1.00
2014	\$1.00
<b>2015</b>	<b>\$1.00</b> <b>(No Adjustment)</b>

# Next Steps

- 1st Reading of All Ordinances:  
June 10, 2014
- 2nd Reading of All Ordinances:  
June 17, 2014
- Resolution for Front Foot  
Assessment: June 17, 2014

A background image showing a city park with a river, green grass, and buildings in the distance under a clear blue sky.

# Thank you for your support!

**Mark Cotter**  
**Director of Public Works**  
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**Dean Borchardt**  
**Business Operations Manager**  
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**Trent Lubbers**  
**Utility Operations Administrator**  
[tlubbers@siouxfalls.org](mailto:tlubbers@siouxfalls.org)

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