



# City of Dickinson Sewer Utility Rate Study

City Commission  
March 3, 2014

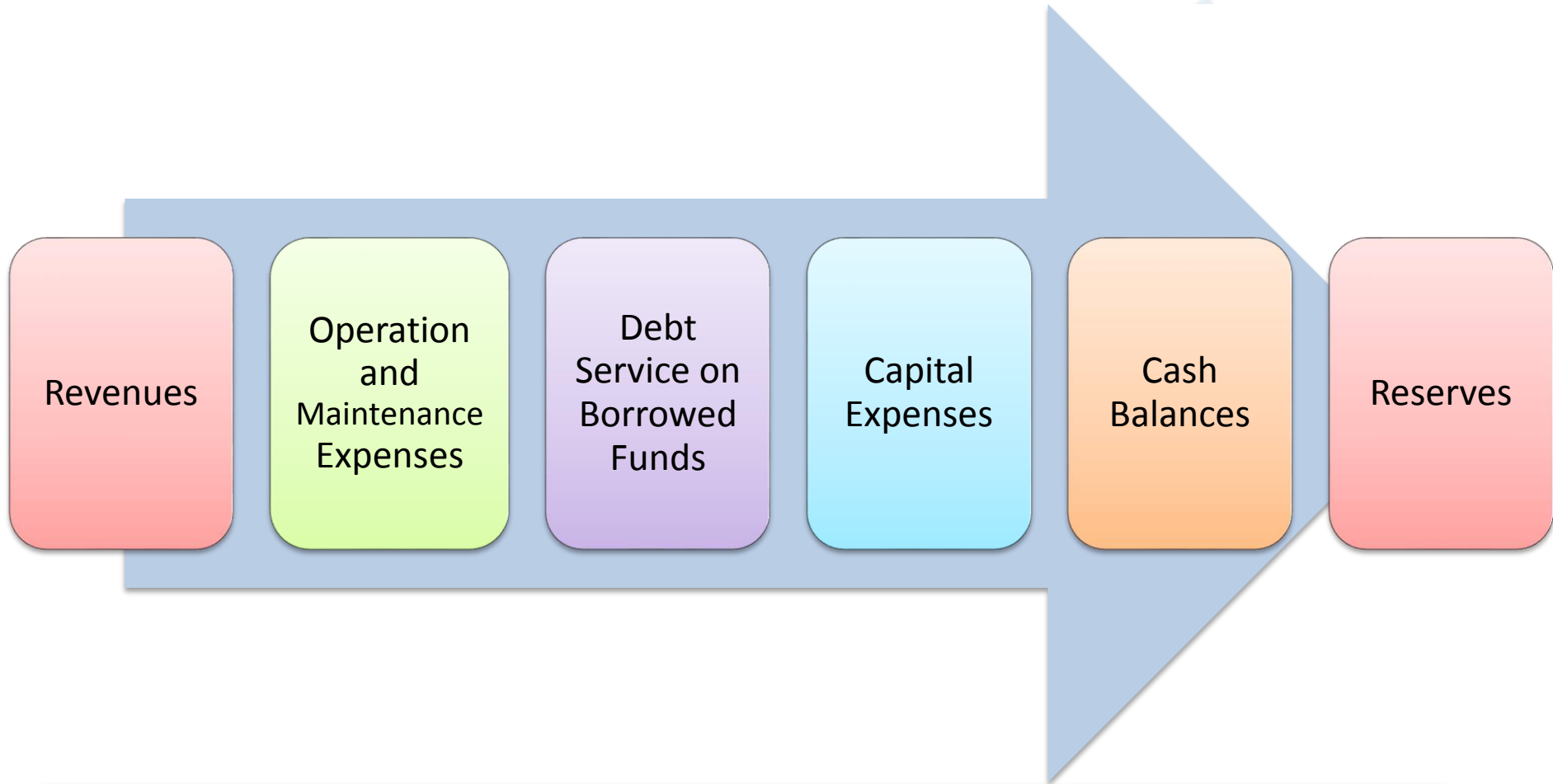
# Presentation Overview

- **Rate Setting Process**
- **Projected Revenues**
- **Projected Expenses**
- **Cash Balances and Debt Coverage**
- **Proposed Rates and Examples**
- **Recommendations**



# Rate Setting Process

# Rate Setting Process



# Rate Setting Process

- **Ensure financial stability of the utility**
- **Determine fair and equitable rates for all customers**
- **Allow management to make sound financial decision**

# Revenues

# Revenues

- **Existing revenue sources include:**
  - Base rates
  - Usage rates
  - Connection fees
  - Irrigation sales
  - Bulk water sales

# Revenues

- **Base rates**

- Residential - \$7.50

- 6,200 customers

- Approximately 200 customers with consumption over expected volume (multi-family?)

- Commercial - \$10.00 to \$125.00

- 1,100 customers

- Base rates set based on water meter size

- Each tier has some inconsistencies (#meters, usage)

- No base rate if not on city water



# Revenues

- **Connection fees**

- Residential \$250
- Commercial up to \$5,450
- New customers paying their share of infrastructure already in place
- Means of providing equity between new customers and long-time residents

# Revenues

- **Irrigation and bulk water sales**
  - Variable irrigation revenue
  - Bulk water sales has been a large revenue source
- **Usage rates**
  - \$2.00 per 1,000 gallons
  - Revenue varies with growth and usage
  - Review of usage rates should be completed

# Revenues

## ■ Future Revenues

- Existing revenues cover existing expenses
- Additional revenues will be needed to cover new expenses
- Alternatives
  - Increase base rates
  - Increase usage rates
  - Increase SACs
  - Water reuse sales
  - Additional bulk water sales ?

# Expenses

# Debt Service

City Project No.	Project Description	Total Loan Amount	Annual Debt Service
201310	Water Reclamation Facility	\$ 36,248,276.00	\$ 2,325,230.00
201301	Influent Pump Station and Forcemain	\$ 11,944,642.00	\$ 766,220.00
201306	West Pump Station and Forcemain	\$ 15,040,000.00	\$ 964,780.00
	West Pump Station and Forcemain - Railroad Portion	\$ 1,440,000.00	\$ 92,380.00
201308	West Gravity Sewer	\$ 1,500,000.00	\$ 96,230.00
201403	Lift Station 12 Upgrade and Forcemain	\$ 13,400,000.00	\$ 859,580.00
201407	Lift Station 14 Upgrade and Forcemain	\$ 4,000,000.00	\$ 256,590.00
201409	Lift Station 5 Upgrade	\$ 3,301,400.00	\$ 211,780.00
	Hwy 10 Pump Station	\$ 1,470,000.00	\$ 94,300.00
	<b>Total</b>	<b>\$ 88,344,318.00</b>	<b>\$ 5,667,100.00</b>

# O&M Expenses

City Project No.	Project Description	Electricity Water Natural Gas	Chemicals/ Disposal	Labor	Included in 2014 Budget	Total O&M
201310	Water Reclamation Facility	\$ 306,000	\$ 95,000	\$ 225,000	\$ 450,000	\$ 176,000
201301	Influent Pump Station and Forcemain	\$ 65,400	\$ 5,000	\$ 15,000	\$ 50,000	\$ 35,400
201306	West Pump Station and Forcemain	\$ 65,400	\$ 400,000	\$ 15,000	\$ -	\$ 480,400
	West Pump Station and Forcemain - Railroad Portion	\$ -	\$ -	\$ 5,000	\$ -	\$ 5,000
201308	West Gravity Sewer	\$ -	\$ -	\$ 5,000	\$ -	\$ 5,000
201403	Lift Station 12 Upgrade and Forcemain	\$ 45,400	\$ 175,000	\$ 15,000	\$ -	\$ 235,400
201407	Lift Station 14 Upgrade and Forcemain	\$ 55,400		\$ 15,000	\$ -	\$ 70,400
201409	Lift Station 5 Upgrade	\$ 55,400		\$ 15,000	\$ -	\$ 70,400
	Hwy 10 Pump Station	\$ 55,400	\$ 222,000	\$ 15,000	\$ -	\$ 292,400
	<b>Total</b>	\$ 648,400	\$ 897,000	\$ 325,000	\$ 500,000	\$ 1,370,400



# Capital Replacement

City Project No.	Project Description	Replacement
201310	Water Reclamation Facility	\$ 75,000
201301	Influent Pump Station and Forcemain	\$ 45,000
201306	West Pump Station and Forcemain	\$ 45,000
	West Pump Station and Forcemain - Railroad Portion	\$ 5,000
201308	West Gravity Sewer	\$ 5,000
201403	Lift Station 12 Upgrade and Forcemain	\$ 45,000
201407	Lift Station 14 Upgrade and Forcemain	\$ 45,000
201409	Lift Station 5 Upgrade	\$ 45,000
	Hwy 10 Pump Station	\$ 45,000
	<b>Total</b>	\$ 355,000

# Cash Balances and Debt Coverage

# Cash Balances

- **Balance available for use if unexpected expenses arise**
- **Cash balance should be “emergency” savings and should not be budgeted for use**
- **Healthy cash balance 25-50% of annual budget**
- **Dickinson falls within that range**

# Debt Coverage

- Reserve requirements are budgeted funds to increase the utility's cash balance
- A “coverage ratio” is often used to ensure debt will be paid
- Debt coverage ratio is the net operating revenues divided by annual debt service
- A coverage ratio of 1.10-1.30 is typical

# Proposed Rates and Examples

# Proposed Rates

## ■ Projected Additional Revenue Needs – Base Rates

Item	Cost	Included in 2014 Budget	Additional Revenue Needed	Proposed Revenue Source
Debt Service through 2015	\$4,154,125.00	\$ 1,948,125.00	\$ 2,206,000.00	Base Rates, Water Sales, SACs
Debt Service through 2017	\$1,513,020.00		\$ 1,513,720.00	Base Rates, Water Sales, SACs



# Proposed Rates

## ■ Anticipated Additional Revenue Phase 1

<b>Total Annual Debt Payment – Phase 1</b>		<b>\$2,206,000.00</b>
<b>Revenue</b>		
SACs		\$500,000.00
DPR - Reuse Water		\$210,000.00
Bulk Water Sales		\$302,000.00
Existing Revenue (in budget or usage revenue)		\$780,000.00
<b>Revenue Deficit</b>		<b>\$414,000.00</b>

# Proposed Rates

- Base rates are determined after SAC charged applied - \$11.00 per equivalent dwelling unit
- SACs will only be collected from City of Dickinson residents
- To make it equitable, customers outside of city limits will pay an additional 10%
- Outside customer rates in Phase 1 - \$12.10 per equivalent dwelling unit

# Proposed Rates

## ■ Base Rates – Phase 1

	Current	City of Dickinson	Outside Customer
<b>Residential Base Rate</b>	\$7.50 per month	\$11.00 per month	\$12.10 per EDU
<b>Residential Usage Rate</b>	\$2.00 per 1,000 gallons	\$2.00 per 1,000 gallons	\$2.00 per 1,000
<b>Non-Metered Customer</b>		\$11.00 per EDU	\$12.10 per EDU
<b>Commercial Base Rate</b>			
Minimum per month	\$10.00	\$22.00	N/A
1 ½" water meter	\$13.50	\$33.00	N/A
2" water meter	\$22.50	\$44.00	N/A
3" water meter	\$35.00	\$55.00	N/A
4" water meter	\$60.00	\$110.00	N/A
6" water meter	\$125.00	\$275.00	N/A
<b>Commercial Usage Rate</b>	\$2.00 per 1,000 gallons	\$2.00 per 1,000 gallons	

# Proposed Rates

## ■ Proposed SAC Charges

	Current	Proposed
¾" water meter	\$250.00	\$1,800.00
1" water meter	\$350.00	\$1,800.00
1 ½" water meter	\$500.00	\$3,000.00
2" water meter	\$1,650.00	\$4,000.00
3" water meter	\$2,400.00	\$5,000.00
4" water meter	\$3,200.00	\$7,000.00
6" water meter	\$5,450.00	\$10,000.00

# Proposed Rates

- **Anticipated Additional Revenue for O&M at Build-out**

Item	Cost	Included in 2014 Budget	Additional Revenue Needed	Proposed Revenue Source
Operation and Maintenance	\$1,370,400	\$ 500,000	\$ 870,000	Usage Rates
Replacement	\$ 355,000	\$ -	\$ 355,000	Usage Rates
<b>Total</b>			<b>\$ 1,225,000</b>	

- **Existing Rates of \$2.00/1,000 appear to be adequate if growth continues**

# Rate Example – Phase 1

- **Example Rates for Dickinson residential, South Heart, DPR and non-metered customer**

Customer	EDUs	Base Rate	Usage Rate \$2.00/1000 gal	Estimated Monthly Charge
Single Family Residential (\$11.00)	1	\$11.00	\$10.00	\$21.00
City of South Heart (\$12.10)	280	\$3,388.00	\$2,800.00	\$6,188.00
Dakota Prairie Refinery (\$12.10)	1,314	\$15,899.40	\$13,140.00	\$29,039.40
Baker Boy(\$12.10)	55	\$665.50	\$550.00	\$1,215.50



# Proposed Rates

## ■ Proposed Rates – Phase 2

<b>Total Annual Debt Payment – Phase 2</b>		<b>\$1,513,720.00</b>
<b>Revenue</b>		
SACs – increase		\$375,000.00
DPR - Reuse Water – increase		\$-
Bulk Water Sales – increase		\$173,000.00
Existing Excess Revenue - increase		\$420,000.00
<b>Revenue Deficit</b>		<b>\$545,720.00</b>

- Base Rates from \$11.00 to \$14.00
- Outside Dickinson \$12.10 to \$15.40

# Rate Example – Phase 2

- **Example Rates for Dickinson residential, South Heart, DPR and non-metered customer**

Customer	EDUs	Base Rate	Usage Rate \$2.00/1000 gal	Estimated Monthly Charge
Single Family Residential (\$14.00)	1	\$14.00	\$10.00	\$24.00
City of South Heart (\$15.40)	280	\$4,312.00	\$2,800.00	\$7,112.00
Dakota Prairie Refinery (\$15.40)	1,314	\$20,235.60	\$13,140.00	\$33,375.60
Baker Boy(\$15.40)	55	\$847.00	\$550.00	\$1,397.00

# Recommendations

# Recommendations

- **Implement Phase 1 Rates as Soon as Possible**
- **Conduct a detailed analysis of residential customers to ensure base rate charges are equitable**

# Recommendations

- **Conduct a detailed analysis of commercial users to address inconsistencies in consumption and base rate charges**
- **Evaluate revenue and expenses in 2015 to determine if Phase 2 rates need to be implemented**





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