

FORT DODGE CSI PROGRAM CAPITAL IMPROVEMENT PLAN

COUNCIL PRESENTATION
FORT DODGE, IOWA
OCTOBER 27, 2014



The Community Sewer Initiative – Why?

- Basement Back-ups
 - 16% of CSI Survey respondents (220 homes)
- Iowa DNR Requirements
 - SSO's, bypassing, and basement back-ups are reportable events
- Health & Safety of Public
 - Back-ups in basements
 - Street bypassing
- Bypass Pumping Locations
 - 23 historical locations throughout the community for 13 pumps

The CSI Program will require a dedicated and consistent approach by multiple City Councils.

The CSI Program - Fort Dodge Strategic Initiatives

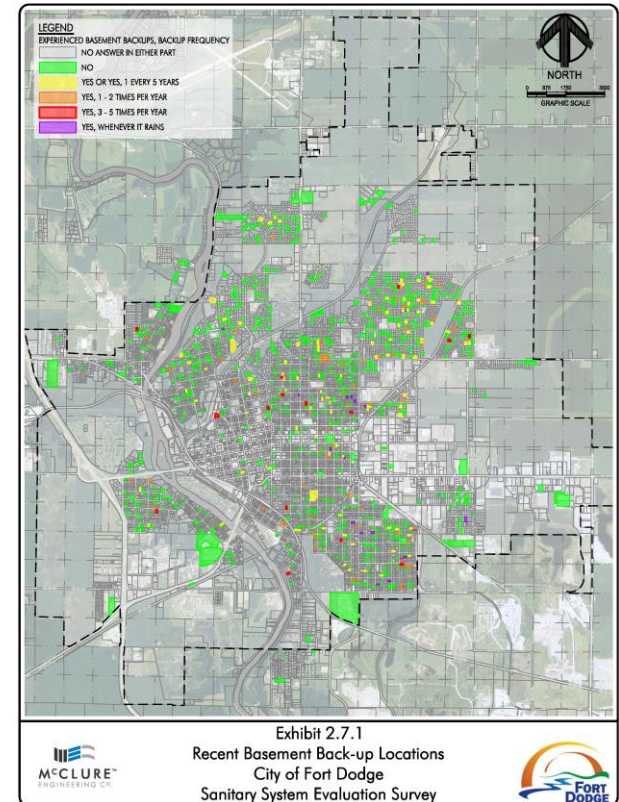
- Alignment with City's Envision 2030



- Identify & upgrade inadequate water & sewer utilities
- Define utility service areas for expansion outside of City limits
- Plan for the infrastructure improvements and expansions necessary to promote infill housing developments for target markets

The CSI Program – How do we know?

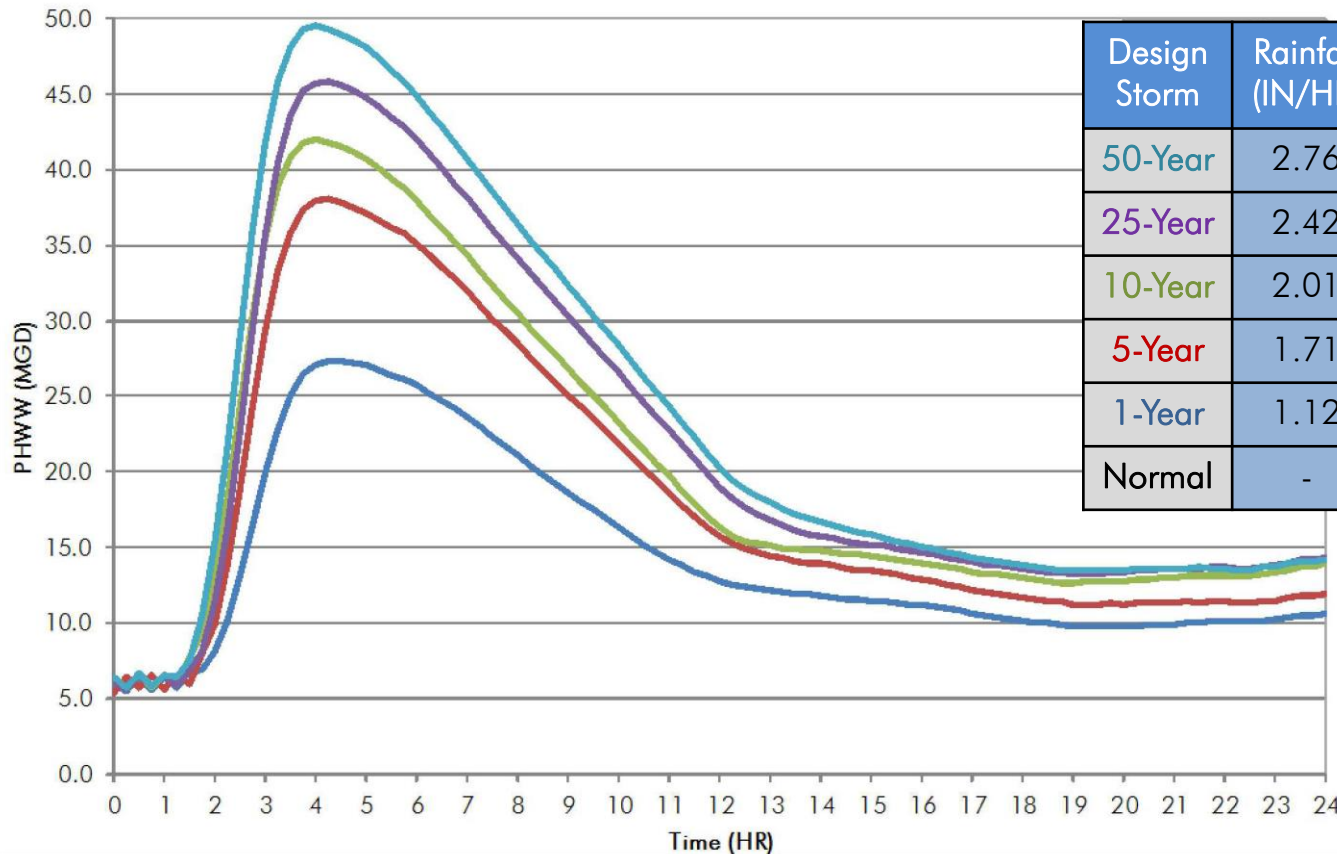
- Extensive field investigations during SSES
 - CSI Survey
 - Field Survey & Inventory
 - Manhole Inspections
 - Flow Monitoring
 - Rainfall Monitoring
 - Hydraulic Modeling
 - Closed Circuit Televising
 - Nighttime Flow Monitoring
 - Smoke Testing
 - Rainfall Simulation



- All data being fully integrated into City's GIS software

The CSI Program – Peak Flows

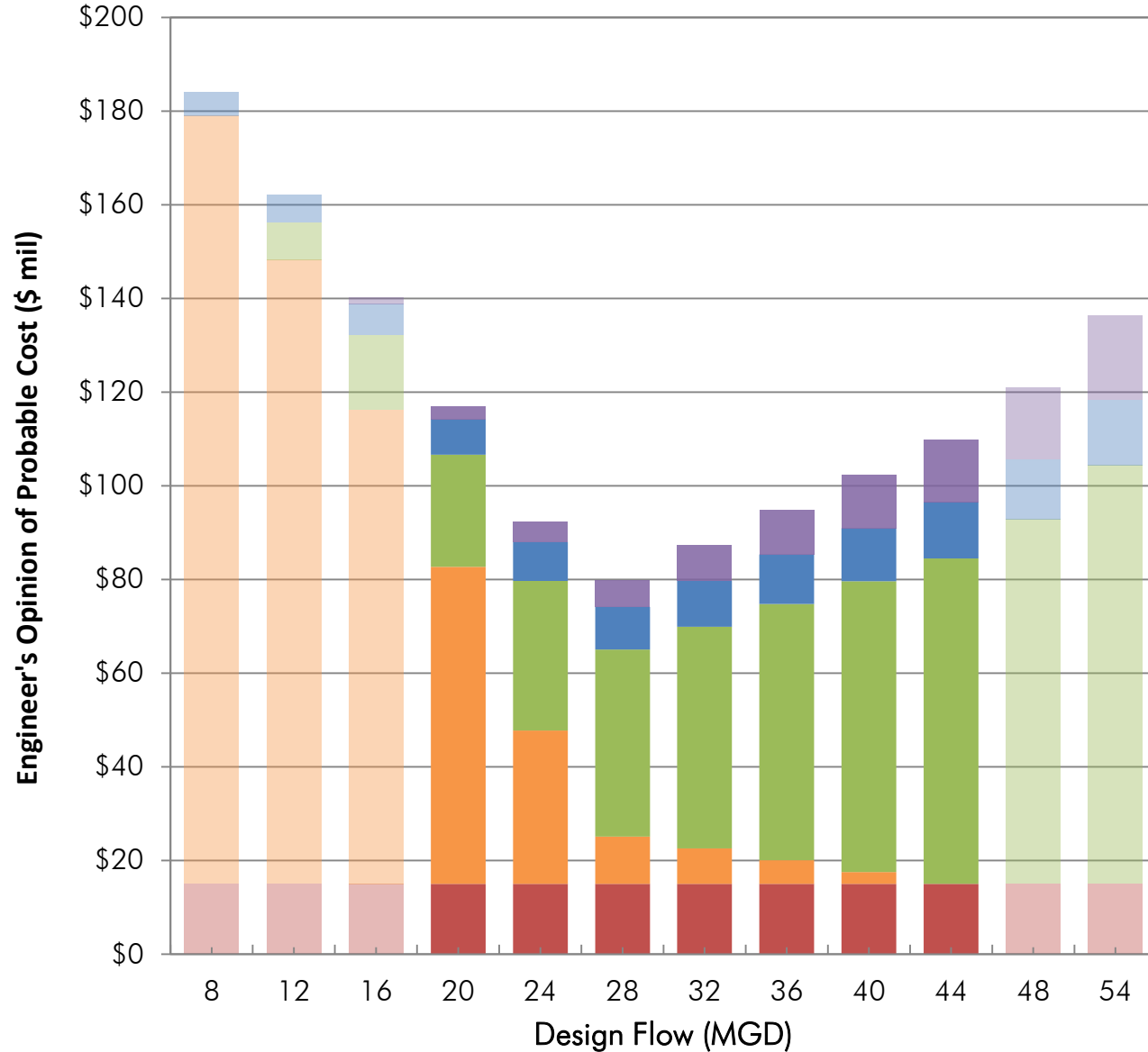
Design Storm Hydrographs at WPCF



Design Storm	Rainfall (IN/HR)	MWW (MGD)	PHWW (MGD)
50-Year	2.76	23.3	49.5
25-Year	2.42	21.8	45.8
10-Year	2.01	20.2	42.1
5-Year	1.71	18.4	38.0
1-Year	1.12	14.4	27.3
Normal	-	-	4.5



City of Fort Dodge Cost Effective Analysis



- Treatment & Equalization Upgrades
- Lift Station Upgrades
- Trunk Sewer Hydraulic Upgrades
- Collection System Rehabilitation
- Required Rehabilitation

Recommended program removes 14.1 MGD

The CSI Program – What's Included?

Capital Improvement Plan

Community Sewer Initiative Program Total	\$79.9
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Implementation & Financing Alternatives

Description	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 6	Scenario 7	Scenario 8
Program	Complete 1 YR; 20-YR Loan	Complete 1 YR; 30-YR Loan	Spread Evenly Next 30 Years	50% in First 10 Years; 50% next 20 Years	20% Every 5 Years	Wait 10 YR; Spread Over Next 20 YR	Rotating Capital Fund
Total CIP Program	\$80 mil	\$80 mil	\$80 mil	\$80 mil	\$80 mil	\$80 mil	\$80 mil
Years to Complete Work	1-YR	1-YR	30-YR	30-YR	25-YR	30-YR	30-YR
Years to Retire Debt	20-YR	30-YR	60-YR	60-YR	55-YR	60-YR	40-YR
Maximum Average Monthly Sewer Increase	\$49.54	\$37.60	\$59.64	\$55.51	\$51.65	\$67.90	\$41.00
Total Amortized Cost	\$119 mil	\$136 mil	\$215 mil	\$200 mil	\$186 mil	\$245 mil	\$148 mil

*All loan calculations assuming 3.0%, 30 years, and a 10% debt service buffer unless otherwise noted. All rate calculations assuming 10,000 users. Rotating Capital Fund utilizes 2% and 20 year loan paid off at an accelerated rate.

The CSI Program – Recommendations

- Recommendation - \$30 million with three \$5 rate increases
 - Cost of construction
 - Historically low financing terms
 - Need for basement back-up/bypass pumping relief
 - Similar community rate comparison
- Included Improvements:

– 13 th /15 th Avenue South Sewer Upgrade (M05)	\$5.2 mil
– South 17 th Street South Sewer Upgrade (G10)	\$5.2 mil
– 10 th Avenue South Sewer Upgrade (R17)	\$3.5 mil
– Avenue B & C Street Trunk Sewers (G02)	\$1.6 mil
– East Lawn Lift Station Upgrade	\$4.4 mil
– Main Lift Station Replacement	\$6.1 mil
– Grade 5 Rehabilitation	\$2.5 mil±
– Cost Effective Rehabilitation	\$1.5 mil±



Construction Cost Index

	Const. Cost Index	Multiplier Since 2014	Annual % Increase
1982	76.1	2.66	3.1%
1994	104.4	1.94	3.4%
2004	143.7	1.41	3.5%
2009	180.1	1.13	2.5%
2014	202.7 (Est.)	-----	-----

*Historical numbers provided by Reed Construction Data.

City of Fort Dodge, Iowa

CSI Charges

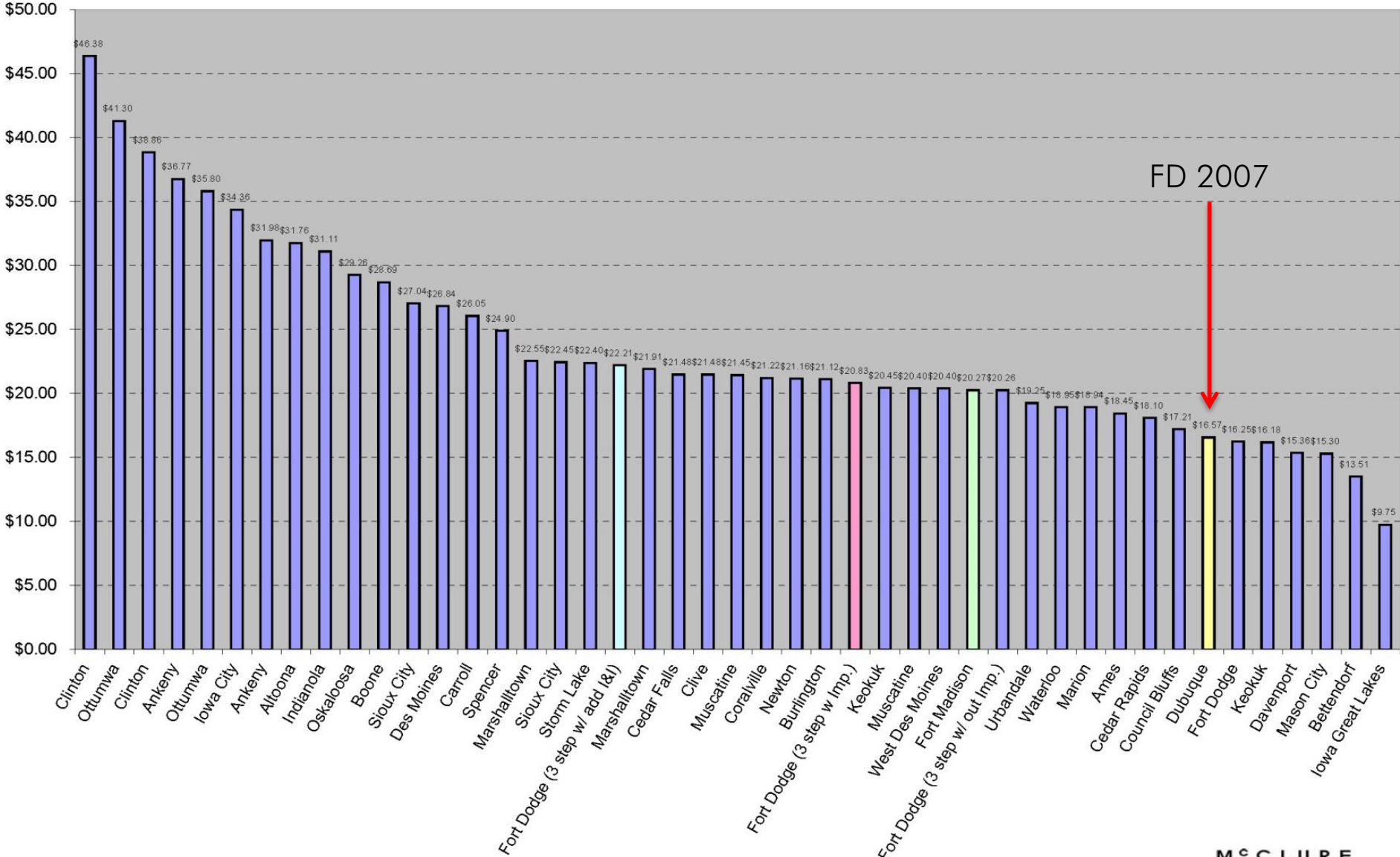
	1-Jan-15	1-Jan-16	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20
	<u>FY 15</u>	<u>FY 16</u>	<u>FY 17</u>	<u>FY 18</u>	<u>FY 19</u>	<u>FY 20</u>
CSI Flat Rate Fee	\$5.00	\$10.00	\$12.50	\$15.00	\$15.00	\$15.00
# of Users	10,000	10,000	10,000	10,000	10,000	10,000
CSI Charge Net Revenues	\$300,000	\$900,000	\$1,350,000	\$1,650,000	\$1,800,000	\$1,800,000
SRF Loan Debt Service @ \$30.0 Million	\$0	\$525,000	\$900,000	\$1,480,000	\$1,647,600	\$1,644,650
DEBT SERVICE COVERAGE						
Net Revenues/ Revenue Debt	n/a	1.71	1.50	1.11	1.09	1.09

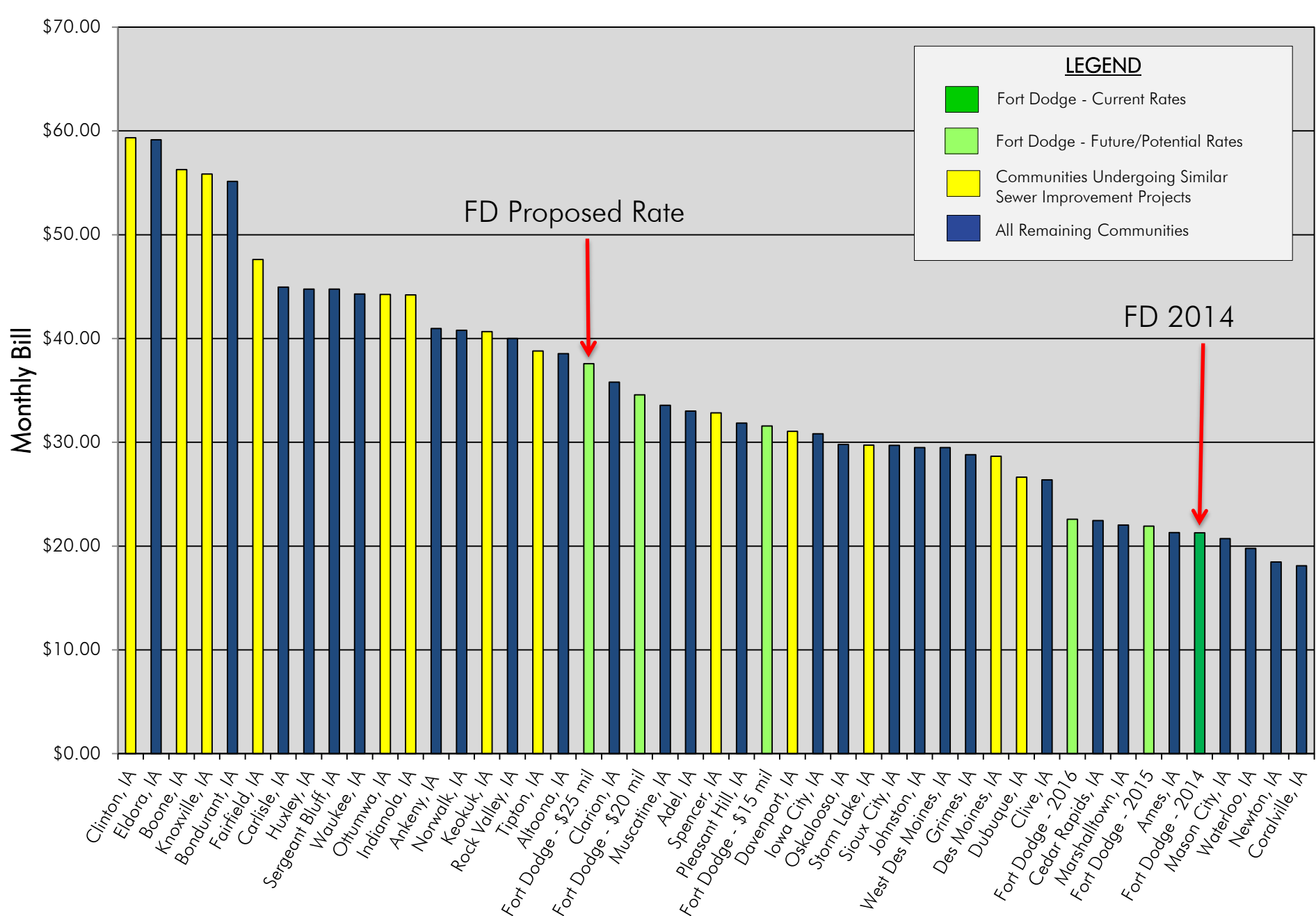
COMPARISON OF DOMESTIC SEWER SERVICE CHARGES

MONTHLY CHARGE FOR VOLUME - 6000 Gallons

From City of Ames - 2007 data

FD 2007





Comparison of Statewide Sewer Bills
 Monthly Charge for a 5,000 Gal. User

QUESTIONS & DISCUSSION

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