

Info Item 1:
CIP & Capital Program,
Capital Budget and Capital
Finance Plan

Presented to the Environment Committee
August 23, 2011

Jason Willett, MCES Finance Director
Bill Moeller, Assistant General Manager, Interceptor Services



Capital Budget/CIP Info

- **8/9/11:** **Proposed CIP, Capital Program & 2012 Capital Budget (Pickart)**
- **8/23/11:** **Capital Finance Plan (Willett)**
- **8/23/11:** **Interceptor Program (Moeller)**

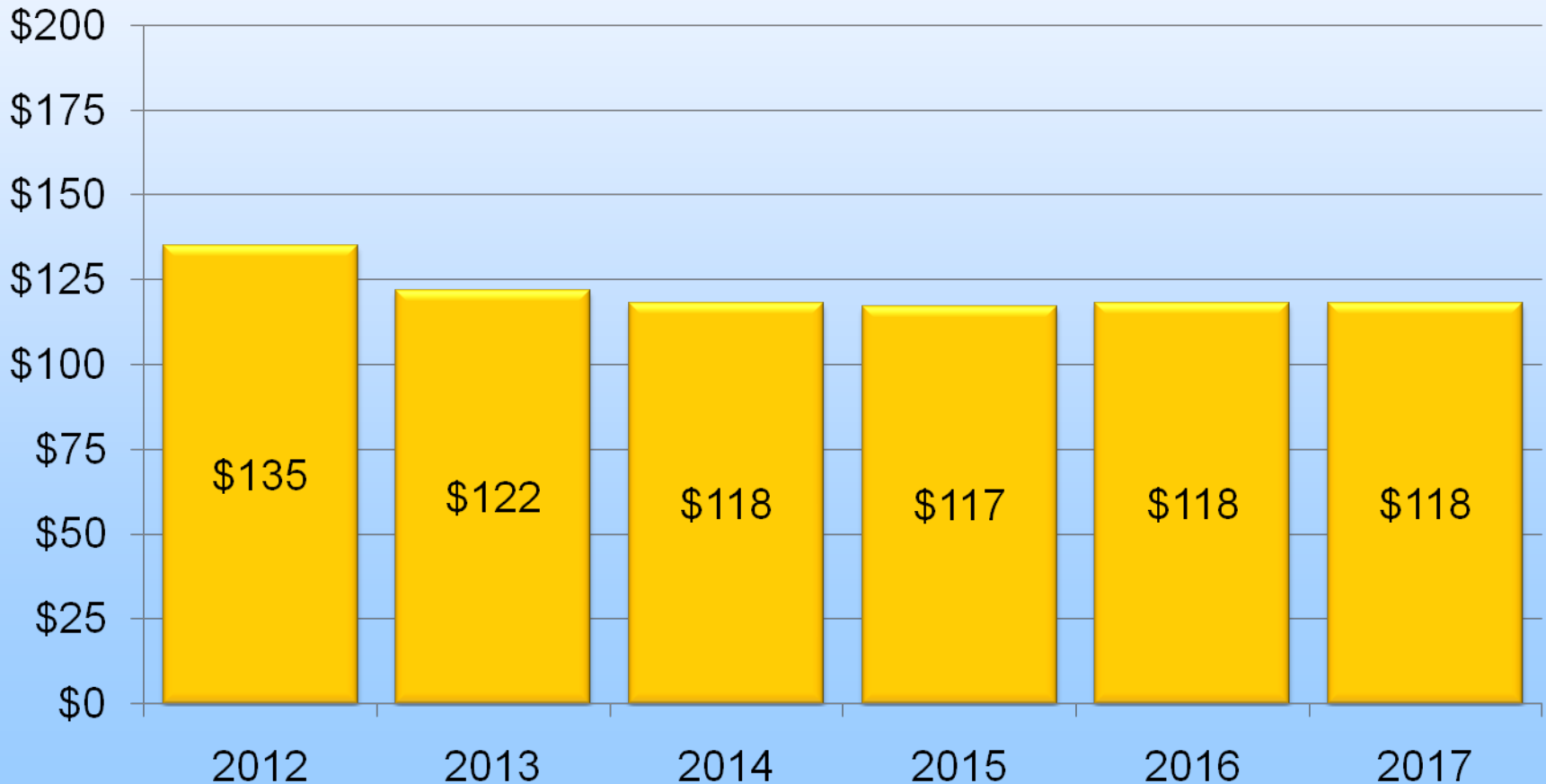


Capital Improvement Plan

2012-2017 Capital Spending

(millions)

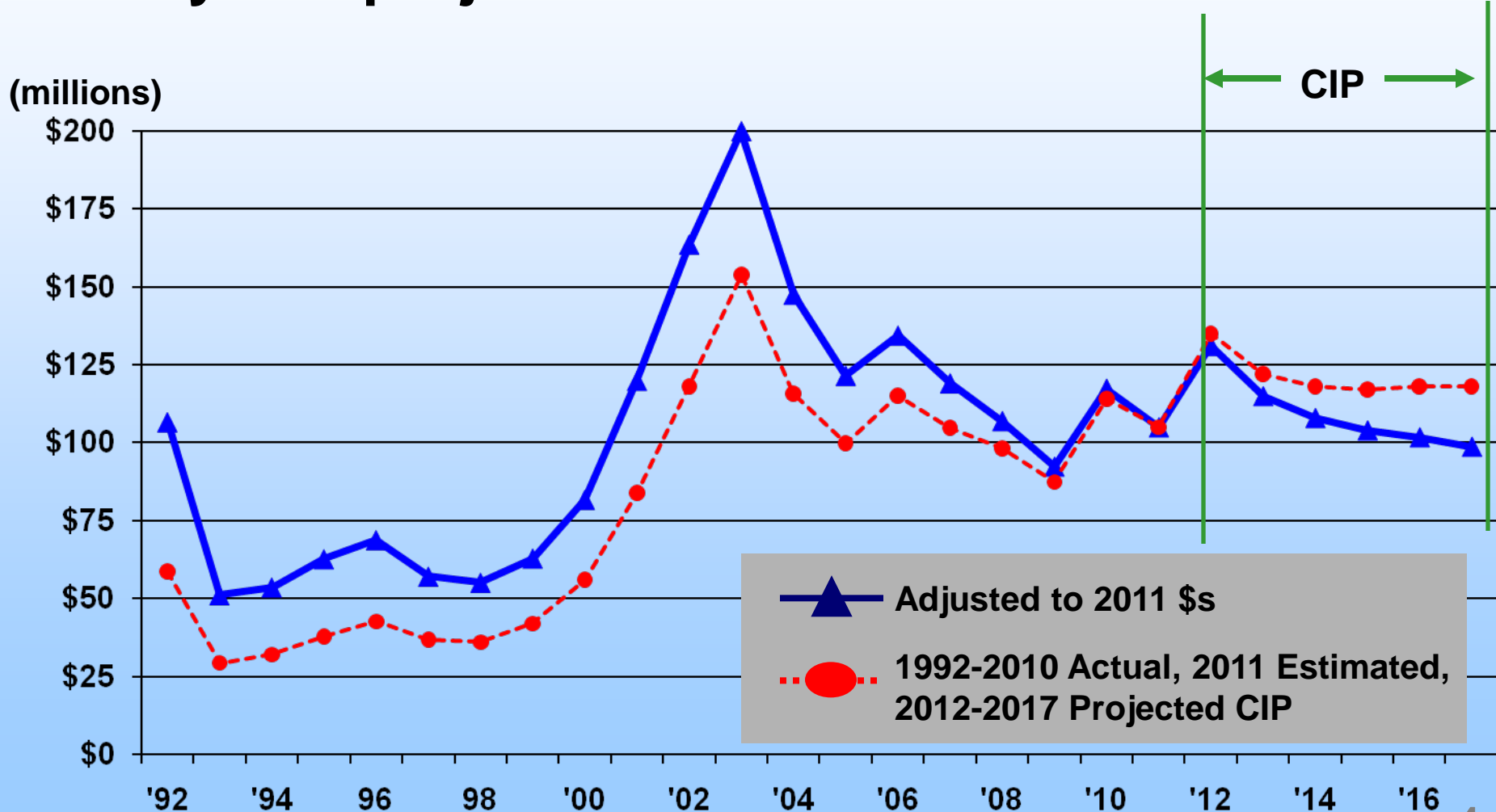
Total projected spending: \$728 million





Capital Spending

History and projections





CIP Comparison

Average Annual Capital Spending:	\$M.	In 2011 dollars
Next 6 years:	\$121	\$110
Last 10 years:	\$111	\$131
Last 40 years:	\$63	\$115



Capital Funding Sources

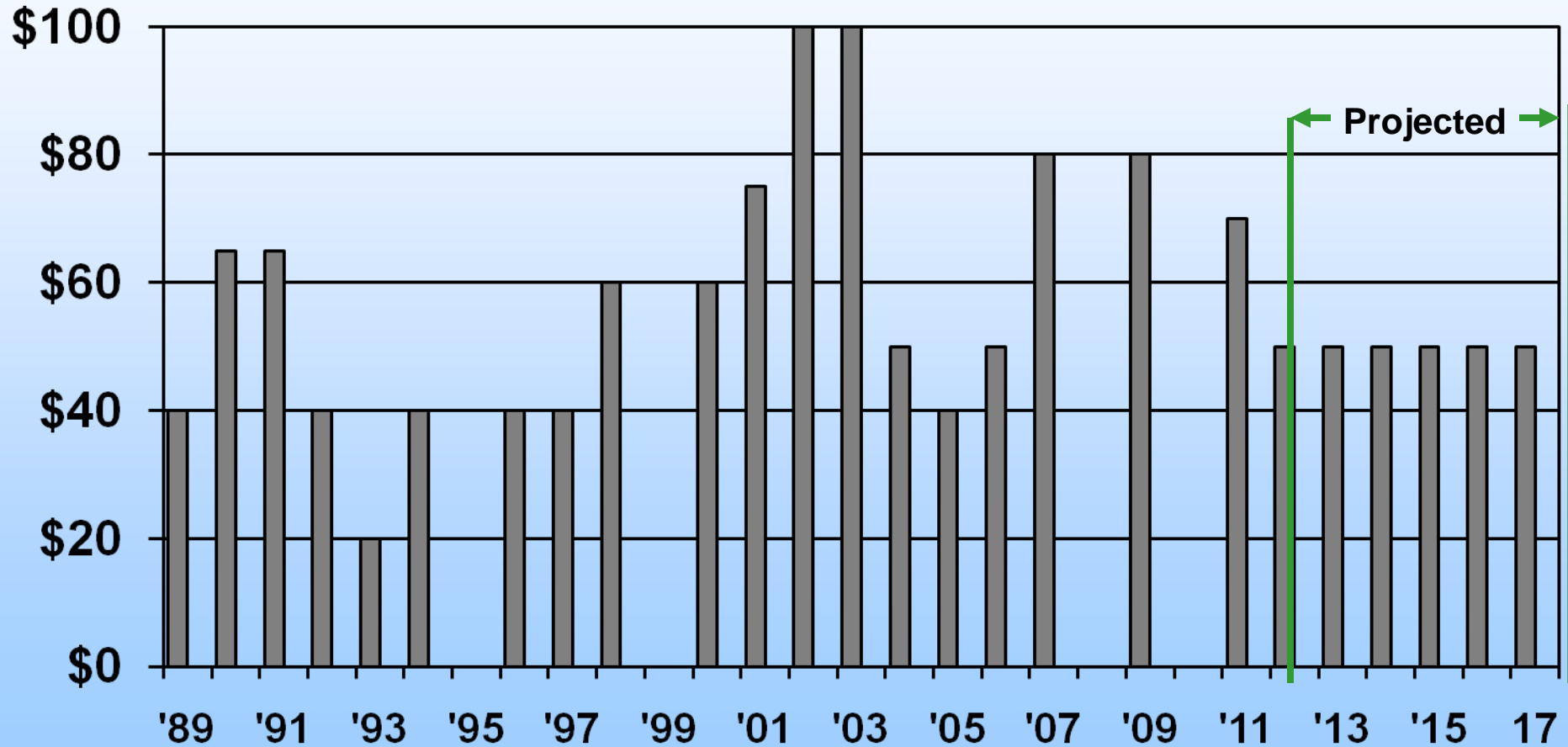
- 1. PFA Loans**
- 2. Pay-as-you-go**
- 3. Grants**
- 4. Local Financing—Cost Sharing**
- 5. Council Bonds**



PFA Loans (Actual and Projected)

(millions)

Actual through 2011, projected thereafter





PFA Clean Water State Revolving Fund Program

- **20 wastewater loan agreements 1989-2011 totaling \$1.17 billion**
- **Interest rates from 1.77% to 6.42%**
- **PFA normally offers below-market interest rates (150 basis points or 1.5% for \$50M borrowed)**
- **PFA and Council pay limited costs of issuance**
- **Council pledges its General Obligation (i.e. taxes if needed)**



PFA Subsidy Impact

Typical \$50 million loan:

(\$ millions)	Total Debt Service	Present Value*
4.0% Council bond	\$73.6	\$50.0
2.5% PFA loan	64.1	43.6
Interest savings to ratepayers	\$9.5	\$6.4
Bond underwriters discount		\$0.5
Cost of issuance saved		\$0.1
Total Present Value Savings		\$7.0

**at 4% discount rate*



Recent PFA/MCES Activity

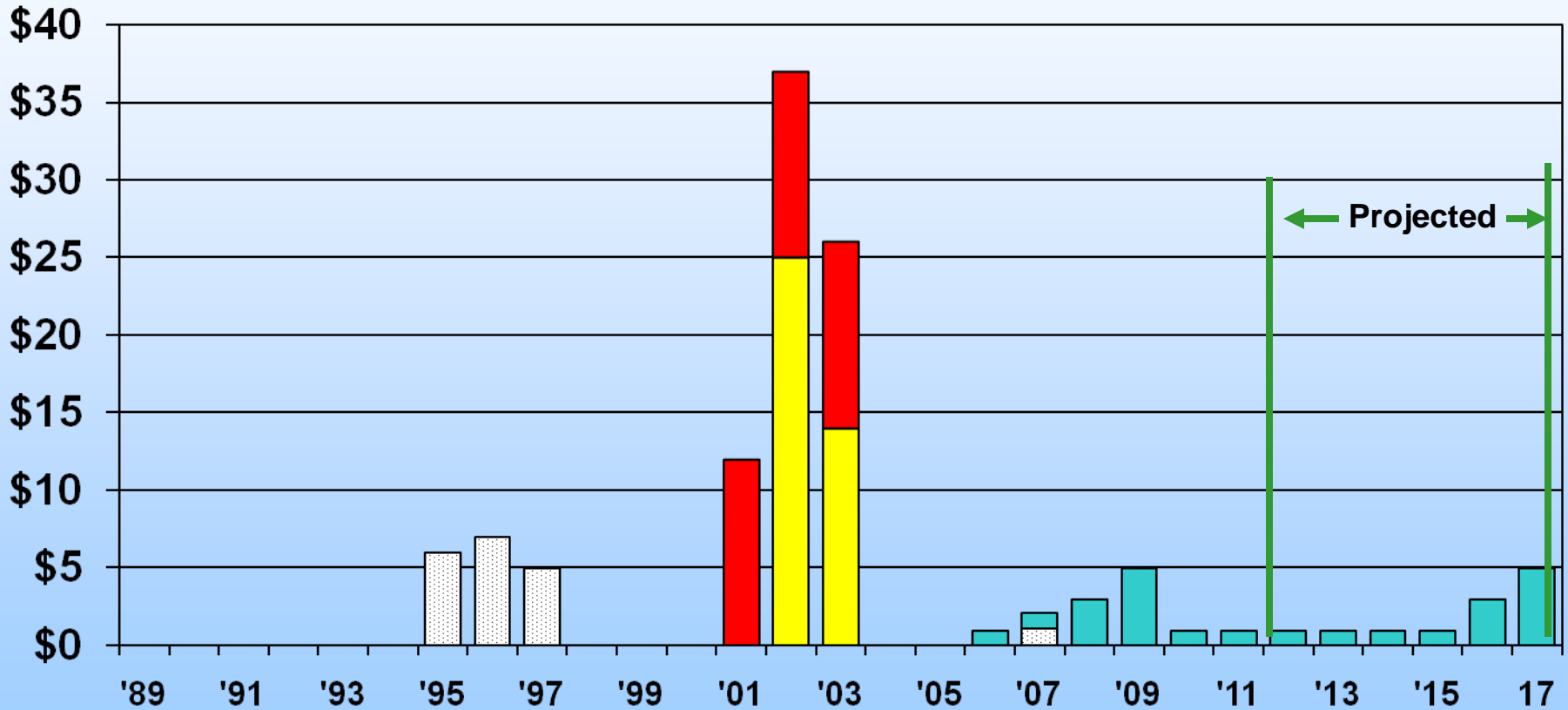
- **\$21M of current \$70M PFA loan dated remains unspent**
 - **Loan is expected to be depleted near end of this year**



- **In 2010, PFA refunded 5 bonds for present value savings of \$19.8 million**
 - **Part of bond proceeds was used for 5 MCES loans**
 - **MCES gets a portion of savings (\$5.5M present value)**
 - **PFA will pay savings to Council by crediting debt service payments:**
 - **\$2.4M in 2010**
 - **\$2.4M in 2011**
 - **\$0.9M in 2012**



Pay-As-You-Go

(millions)



 Favorable Variance
 SAC (Service Availability Charge)

 Annual Budget
 CRF (Capital Revolving Fund)



Grants

- **PFA (ARRA): \$8.2 million in 2009**
- **PFA State Phosphorus: \$0.5 million in 2009-2010**
- **OES Local Govt. Energy Grant: \$.2M in 2011**
- **PFA Green Project Reserve: \$1 million**
 - **\$525,000 Metro non-condensing steam turbine generator project**
 - **\$450,000 Metro aeration tanks improvements project**



Cost Sharing

(\$ thousands)

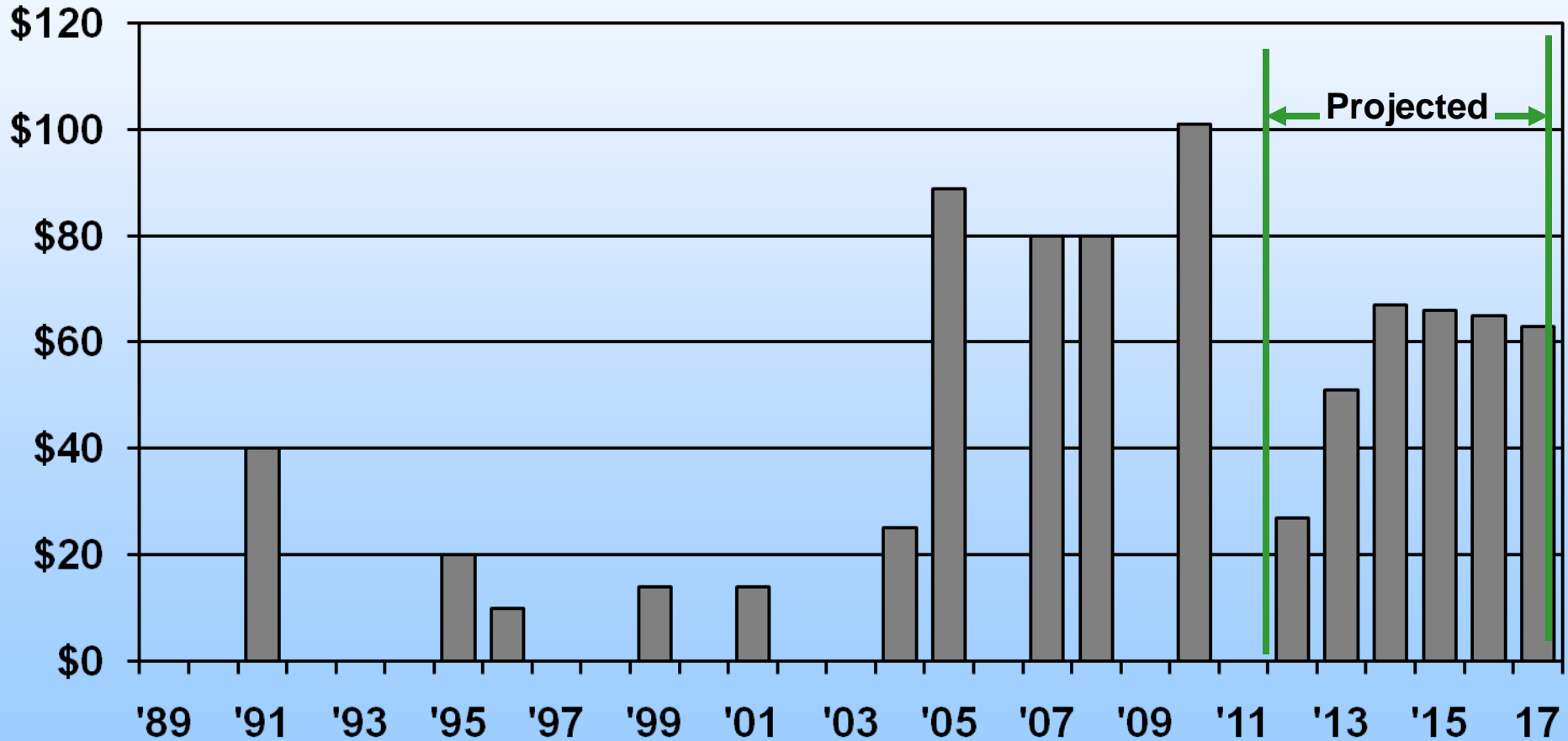
	Lakeville	Brooklyn Park	Elko New Market*	Plymouth	Maple Grove	Total
2010	\$173	\$123		\$462	\$78	\$836
2011		\$123	\$18			\$141
2012		\$123	\$18			\$141

** \$239,000 to be repaid over 20 years at 4.07% interest (\$17,695/year).*



Council Wastewater Bonds

(millions)



Actual through 2011, projected thereafter



Summary

- **Debt Service and Debt Outstanding**
- **Comparative Data**
- **Staff Conclusions**



Pre-funded Debt Service

- **In prior years, some operating funds transferred to Debt Service Reserve Fund**
- **Balance of \$11.3 million at year-end 2010**
- **Fund not allowed to drop below 5% of annual debt service; currently \$4.9 million**



Debt Service Adjustments

(\$ millions)	Debt Service	Pre-funded D.S.	Budgeted D.S.	Increase
2011	92.5	0	92.5	.4%
2012	97.4	(.5)	96.9	4.7%
2013	102.8	(1.0)	101.8	5.1%
2014	106.1	0	106.1	4.3%
2015	115.6	(1.5)	114.1	7.5%
2016	125.2	(2.0)	123.2	7.9%
2017	137.9	(3.0)	134.9	9.5%

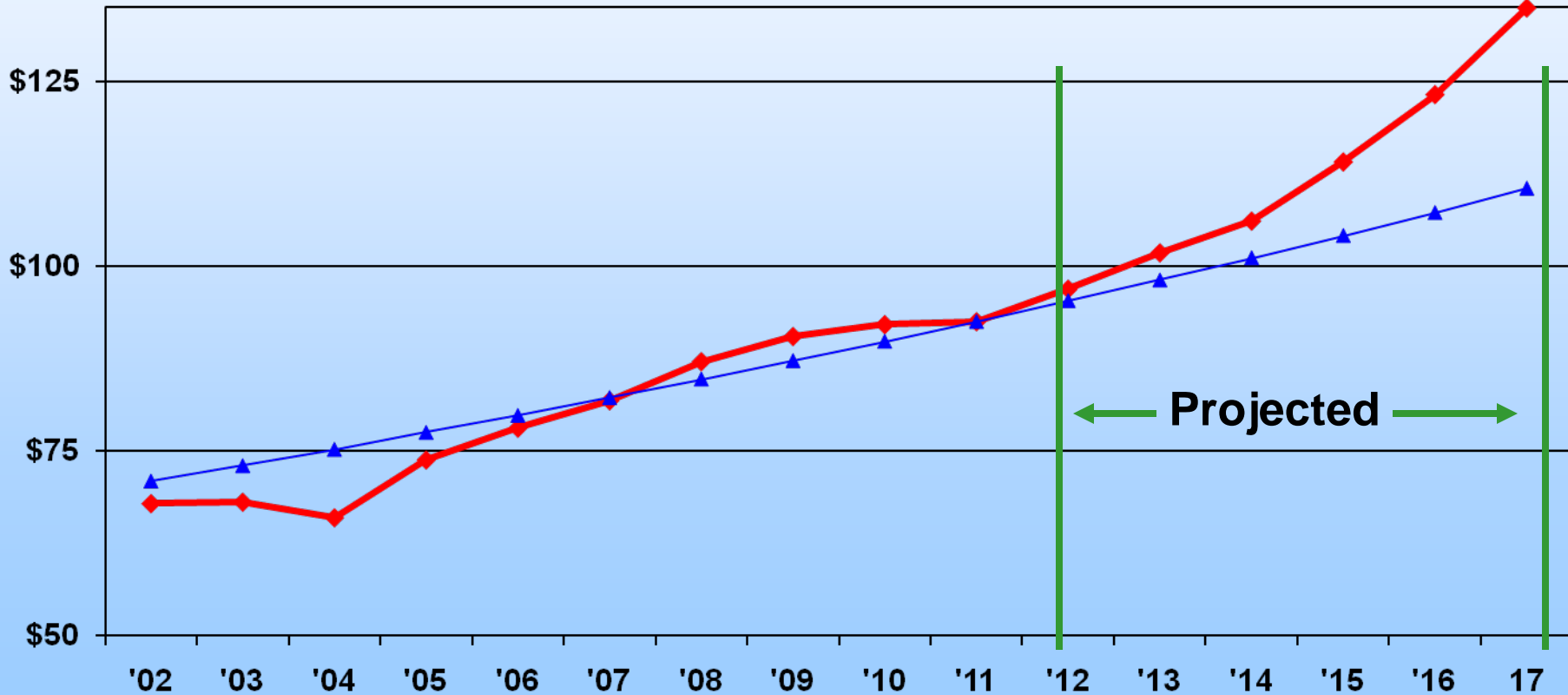


Budgeted Debt Service

History and projections

- ◆ 2002-2010 Actual Debt Service, projected thereafter
- ▲ 2011 Debt Service with 3% inflation (in 2011 dollars)

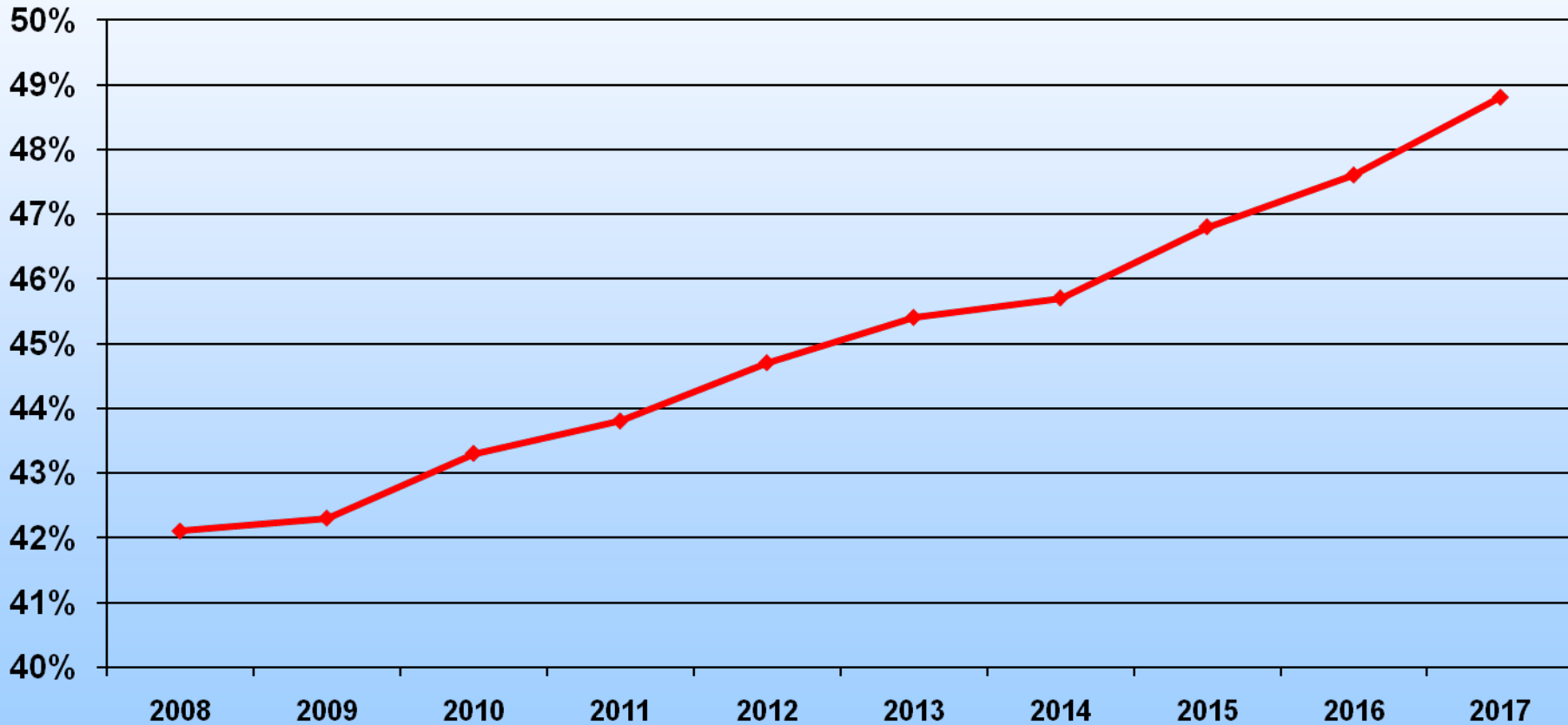
(millions)





Debt Service Projections

As a percent of annual budget*



****Includes portion of debt service paid by SAC transfer; assumes O&M portion of budget increases 3% per year.***



Peer Agencies

Debt Service as a % of budget*

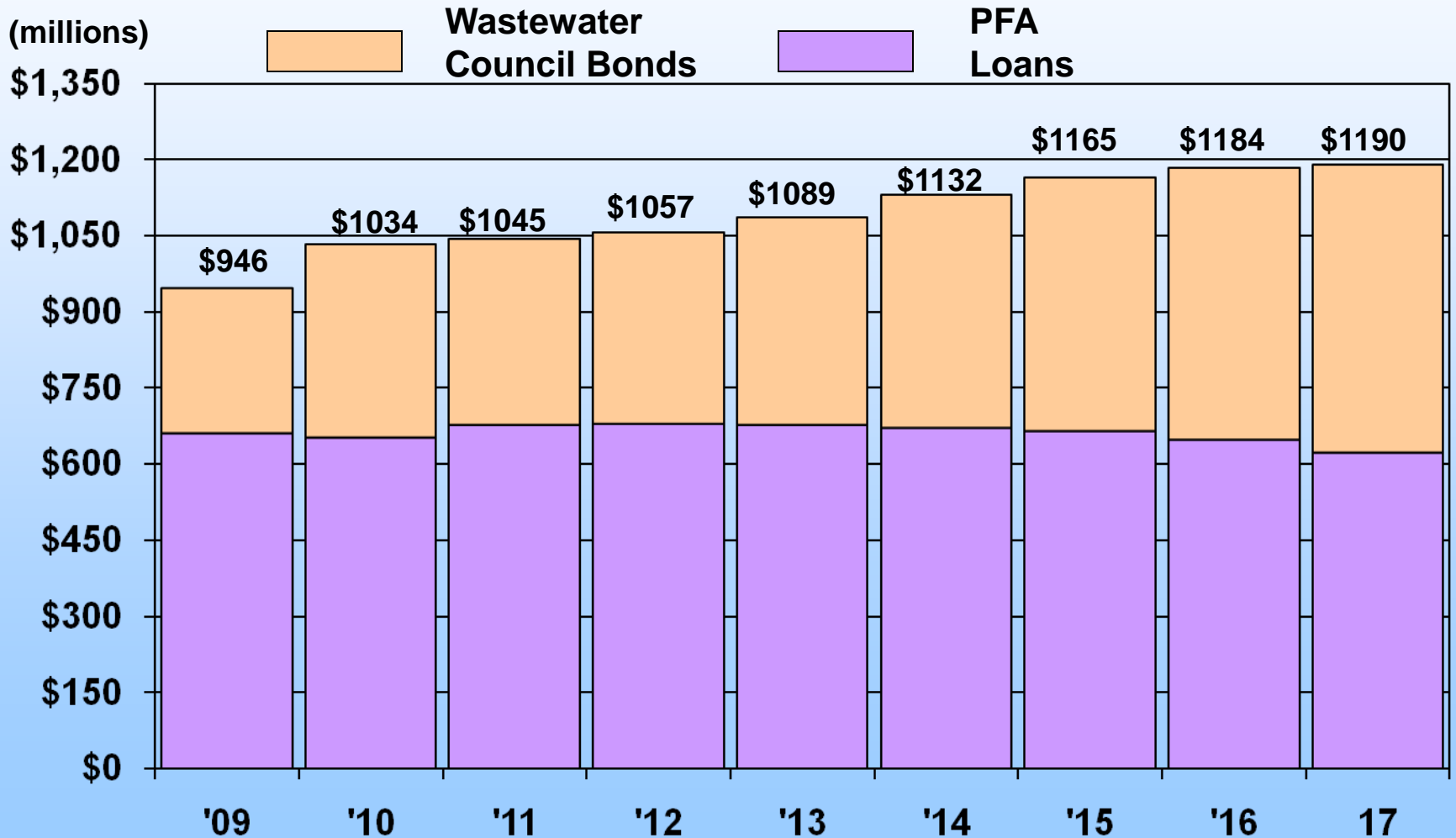
Washington, DC	19%	Cincinnati	37%	Milwaukee	54%
Rochester, NY	21%	Cleveland	40%	Trinity River TX	55%
Kansas City	25%	Phoenix	40%	Nashville	58%
Denver	26%	Honolulu	41%	King County WA	58%
Chicago	30%	Detroit	44%	Louisville KY	58%
Memphis	32%	MCES	44%	New York	61%
Philadelphia	33%	Columbus	48%	Miami	70%
Indianapolis	34%	Sacramento	52%		
San Diego	37%	Austin	53%		

**2007 data from 2008 NACWA survey*



Outstanding Wastewater Debt

2009 and 2010 are actual; other years projected





Peer Agencies

Debt per capita (person)*

San Diego	\$43	Philadelphia	\$530	New York	\$1,287
Denver	\$79	Cleveland	\$543	Columbus	\$1,572
Memphis	\$139	Milwaukee	\$725	Seattle	\$1,593
Chicago	\$279	Miami	\$734	Honolulu	\$1,861
Kansas City	\$283	Detroit	\$738	Louisville	\$1,872
MCES	\$343	Nashville	\$768		
Phoenix	\$354	Cincinnati	\$789		
Dallas/Ft Worth	\$415	Austin	\$1,085		
Washington, DC	\$480	Sacramento	\$1,154		

**2007 data from 2008 NACWA survey*



Conclusions

- **Financing load is reasonable**
- **Next financings projected:**
 - **\$50-\$70M PFA loan late 2011 or early 2012**
 - **\$25-\$50M Council bonds mid 2012**
- **PFA subsidies are important**
- **Continued financing needs mean Council's "Aaa" bond rating and G.O. backing also very important**

MCES Inspection & Rehabilitation Program

Bill Moeller, Assistant General Manager, Interceptor Services



Inspection Program Purpose

- **Identify and track system deficiencies to initiate rehabilitation**
- **Identify Inflow and Infiltration (I&I)**
- **Support Capital Improvements Program**
- **Document proper O & M activities**



Program Elements

- **Closed Circuit Televising (CCTV)**
 - In house crew
 - Contracted

- **Physical Inspection**
 - Above ground
 - In pipe

- **Specialty Methods**
 - Sonar
 - Thermographic



Interceptor System Components

- **474 miles of gravity sewer**
- **195 flow meter stations**
- **116 miles of forcemain**
- **62 lift stations**
- **22 miles of siphon sewer**
- **10 combined sewer overflow regulators**



Priority and Frequency

■ Priority setting

- Pipe Material and Age
- Consequence of failure
- Known deficiencies
- Last inspection
- Inflow / Infiltration potential

■ Frequency

- 10-15 years normal
- 20-25 years deep tunnels
- 1-5 years for known deficiencies

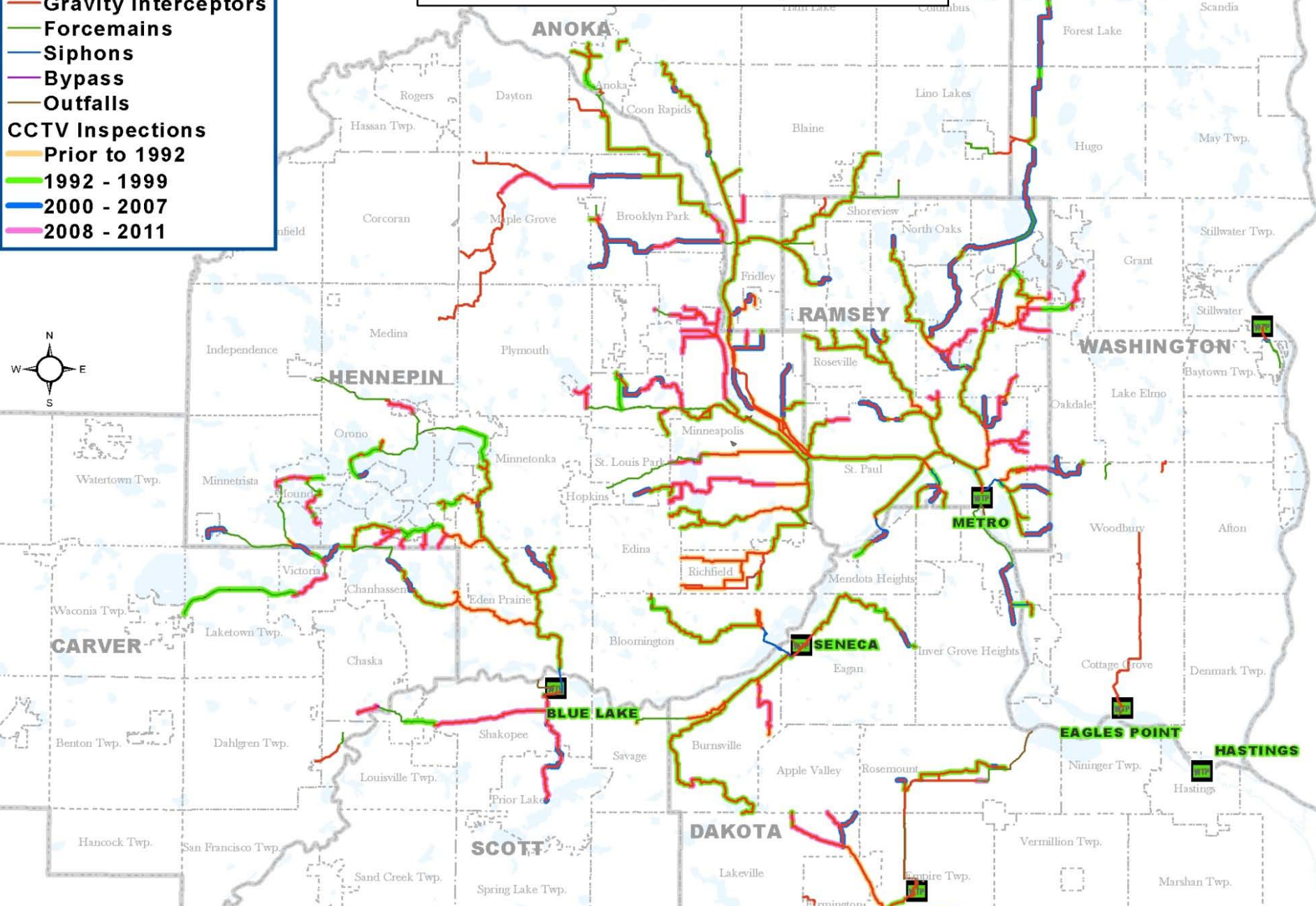
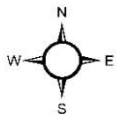


Program Performance

- **2008-2010: 40-50 miles inspected**
- **2004-2010: Inspections performed in 30+ communities with I&I surcharge**
- **30+ Capital projects generated**

CCTV Interceptor Inspections

- MCES Interceptors**
 - Gravity Interceptors
 - Force mains
 - Siphons
 - Bypass
 - Outfalls
- CCTV Inspections**
 - Prior to 1992
 - 1992 - 1999
 - 2000 - 2007
 - 2008 - 2011





Rehabilitation Projects

- **Hopkins Forcemain**
- **South St. Paul Forcemain**
- **Plymouth Forcemain**
- **Trenchless Rehabilitation**
 - **Golden Valley**
 - **Maplewood**
 - **Woodbury**
 - **Inver Grove Heights**
 - **Newport/St. Paul Park**
 - **Chanhassen**
 - **New Brighton**



Rehabilitation Projects, cont.

■ Minneapolis rehab

- MN-303
- MN-311
- MN-312
- MN-314
- MN-314
- MN-330
- MN-341
- MN-342
- MN-343
- MN-310 Tunnel
- MN-320 Tunnel
- MN-344 Tunnel



116.7 FT.

52.5 FT.



273.8 FT.











APR 19 2004



MAR 27 2002





JUL 11 2007



Next Steps

- **August:** Committee information & discussion
- **Sept-Oct:** Council approves preliminary unified capital budget, capital program and CIP (including Capital Financing Plan)
- **November:** Public hearing
- **December:** Council adoption