

Department of Public Works Sewer Maintenance Fund



2016 Sewer Capital Budget

2016 Sewer Capital Program

■ Sewer Maintenance Relay	\$32,000,000
■ Inflow and Infiltration (I/I)	\$5,000,000
■ Sanitary Pump Rehabilitation	\$700,000
■ Water Quality Projects	\$1,000,000
■ Flood Mitigation Program	\$5,000,000
■ Channel Maintenance	<u>\$200,000</u>
■ Total 2016 Preliminary Sewer Program	\$43,900,000

Sewer Maintenance Relay

	R/R Budget (million)
2015	\$32.80*
2016	\$32.00
2017	\$32.00
2018	\$32.00
2019	\$32.00
2020	\$33.00
Total	\$193.80



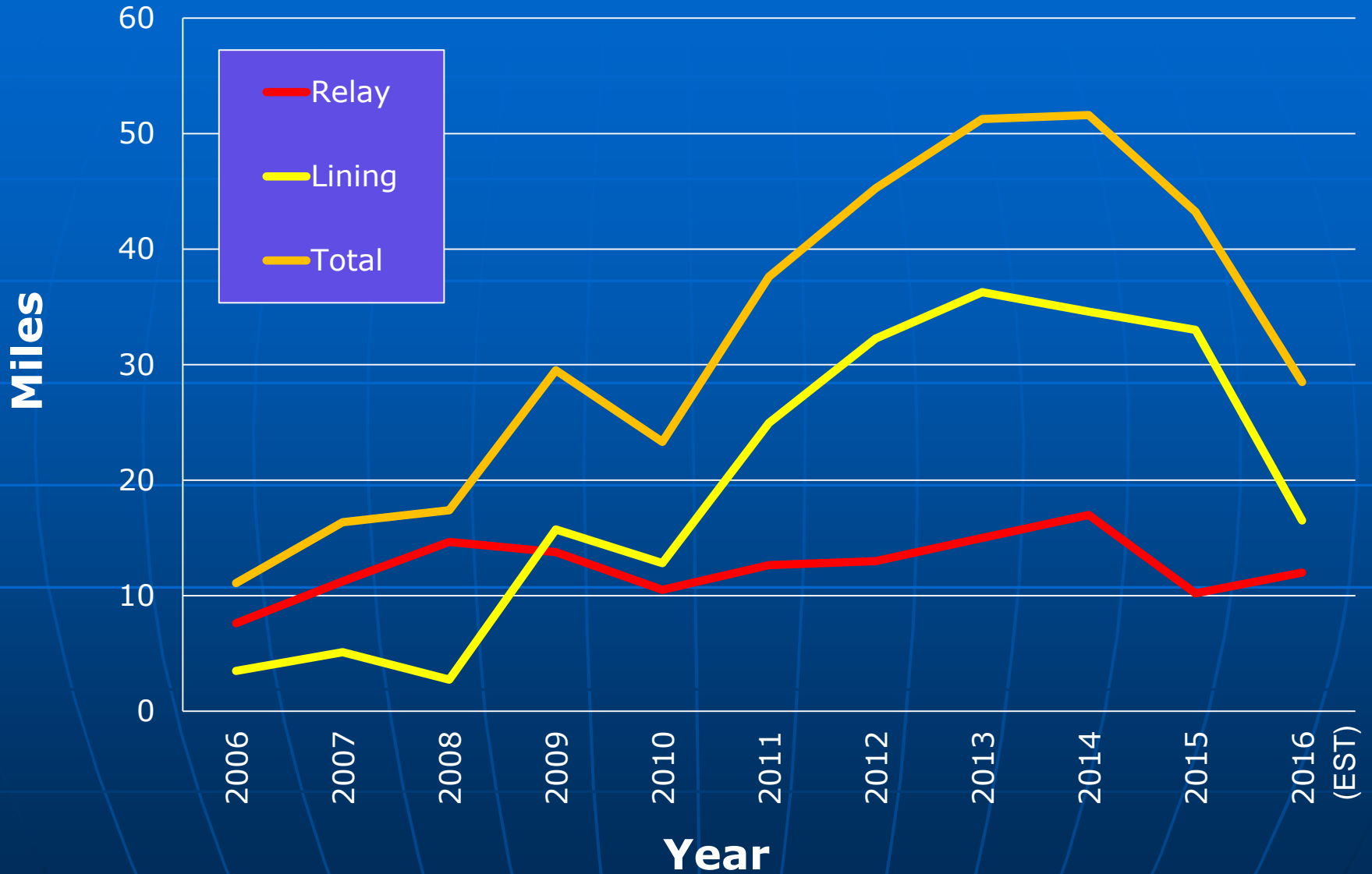
* Includes \$2.8 M in reserves

2016 Major Projects

12 Miles of Sewer Relay, 16.51 Miles of Sewer Lining

- W Keefe Ave – N 17th St to N 24th Pl: \$3,546,000
 - 3,200' of 60" Dia. (1939) Combined Sewer Lining
- N 30th St Corridor Wet Weather Project: \$1,500,000
- W Montana St – S 6th St to S 9th St: \$1,500,000
 - 1,400' of 30" Dia. (1933) Combined Sewer Relay

2006 - 2016 Sewer Replacement



Inflow and Infiltration (I/I) Reduction

	I/I Budget (million)
2015	\$5.00
2016	\$5.00
2017	\$7.00
2018	\$7.00
2019	\$7.00
2020	\$7.00
Total	\$38.00



* MMSD's PPII Grant for 2016: \$1.65 M

Purpose of Inflow and Infiltration (I/I) Projects

- To address higher flows in MMSD's non-compliant metersheds
- To reduce basement backups, remove unwanted clear rain water from sanitary sewers
- To reduce Sanitary Sewer Overflows (SSO)

Projects due to July 2010 Storm Event

- 18 areas were identified
- Since 2010, \$18.5 million spent to line/relay 68 miles of sewer
 - 7 projects were in poorly performing MMSD metersheds
 - 2 projects were Private Property I/I
 - Cooper Park 526 properties
 - Clemens School Neighborhood 359 properties

2016 I/I Reduction Projects

- Area Bounded By W Center St to W Vienna Ave and N 59th St to N Argonne Dr: \$2,866,000
 - 74,000' of 8" to 15" Dia. Sanitary Sewer Lining
- Area Bounded By W Cleveland Ave to W Arthur Ave and S 67th St to S 71st St: \$309,000
 - 7,500' of 8" to 10" Dia. Sanitary Sewer Lining
- Area Bounded By W Montana St to W Oklahoma Ave and S 44th St to S 49th St: \$280,000
 - 6,600' of 8" Dia. Sanitary Sewer Lining
- Continued annual manhole inspection and rehabilitation of sanitary manholes to prevent I & I from entering.

Sanitary Pump Rehabilitation

	Pump Rehab (million)
2015	\$0.70
2016	\$0.70
2017	\$0.70
2018	\$0.70
2019	\$0.70
2020	\$0.70
Total	\$4.20



Before



After

Purpose of Pump Rehabilitation

- Flow is pumped from the sanitary sewer to a higher level sanitary sewer or a storm sewer to prevent basement backups.
- Rebuild existing pump sites, including new pump and components
- Maintain SCADA telemetry system
- Design SCADA system upgrades
- Perform monthly pump checks and “load” tests at all sites

Storm Water Quality Projects

	Water Quality Projects (million)
2015	\$ 1.00
2016	\$ 1.00
2017	\$ 0.50
2018	\$ 0.50
2019	\$ 0.50
2020	\$ 0.50
Total	\$ 4.00



* MMSD Green Solution Grant for 2016: \$0.67 M

Purpose of Storm Water Quality Projects

- Reduce Stormwater Peak Flows
- Improve Water Quality of Rivers and Lakes
- Improve Urban Aesthetics

2016 Storm Water Quality Projects

- Bioswales in the median/terrace
 - N 76th St – W Lisbon Ave to W Nash St
 - W Nash St – N 76th St to W Potomac Ave
- Other Projects
 - Milwaukee Public Schools – Parking Lots
- Green Alleys (Permeable Pavement)
 - Various alleys in coordination with paving

Flood Mitigation Program

Budgeted amount is \$5 Million

- Copernicus Park Flood Control Project – Phase 1
- Dineen Park Flood Control Project – Phase 2
 - Being done in cooperation with Milwaukee County to use park land to address flooding.
 - Working with residents to provide park enhancements in addition to detention facilities.

Channel Maintenance

	Channel Maintenance (million)
2015	\$0.20
2016	\$0.20
2017	\$0.20
2018	\$0.20
2019	\$0.20
2020	\$0.20
Total	\$1.20



Purpose of Channel Maintenance

- Remove large debris from channels and culverts to maintain proper drainage
- Clean sediments from channels
- Bank stabilization and outfall protection