



FY 2019 Proposed Capital Improvement Program



MSD System Overview & Details

- ❏ Two utilities: wastewater and stormwater
- ❏ 525 square mile service area
- ❏ ~1,300,000 customers
- ❏ 90 municipalities served
- ❏ 7 treatment plants
- ❏ 350+ million gallons/day wastewater treated
- ❏ 4,744 miles of sanitary sewers
- ❏ 1,806 miles of combined sewers
- ❏ 3,028 miles of stormwater sewers



Pre-Qualifying as a Prime Contractor

- ❏ Pre-Qualification Application Accepted at Any Time
- ❏ Contractors are Pre-Qualified for Specific Work Categories
- ❏ Annual Renewal of Pre-Qualification Status
- ❏ Must be Pre-qualified to Bid
- ❏ Visit MSD Booth for More Details

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Small Contractor Program (SCP)

- ❏ Program Purpose
- ❏ SCP Project Size
- ❏ SCP Typical Work Types
- ❏ Visit MSD Booth for More Details

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- ❏ The initiative to improve water quality and alleviate many wastewater concerns in the St. Louis region
- ❏ Long-term effort by the Metropolitan St. Louis Sewer District (MSD), undertaken as part of an agreement with the U.S. Environmental Protection Agency and the Missouri Coalition for the Environment
- ❏ Will invest billions of dollars over a generation in planning, designing, and building community rainscaping, system improvements, and an ambitious program of maintenance and repair

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Sanitary Sewer Overflow (SSO) Elimination

- ❏ 120 SSO's removed since 2009
- ❏ 104 SSO's remain within the system
- ❏ Nine (9) SSO's to be removed by 2018 due date

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Four Focus Areas for MSD Project Clear

Sanitary and Combined Wastewater


Stormwater

Get the Rain Out

Repair & Maintain

Build System Improvements

Repair & Maintain

-  Stormwater Disconnections²
-  Rainscaping¹
-  City Sheds Program¹
-  Combined Sewer Separations¹



¹Combined sewer area only activities
²Separate sewer area only activities

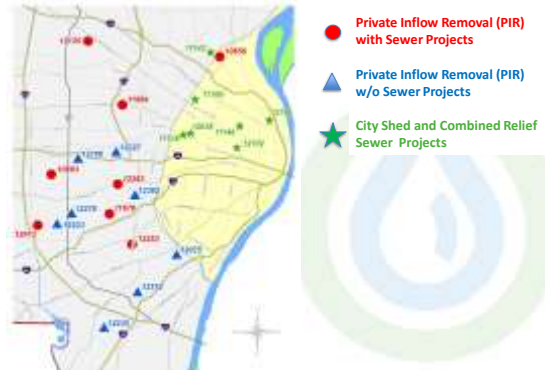
Get The Rain Out Stormwater Disconnections



Get The Rain Out Private Inflow Removal (PIR)



Get The Rain Out - FY2019



Get The Rain Out - FY2019

Private Inflow Removal (PIR) With Sewer Construction

Project Name	Pipe Footage	Pipe Size (Inches)	No. of PIR's	Appropriation Budget
ADAMS I/I REDUCTION (SOUTHEAST OF I-270 AND DOUGHERTY FERRY RD) (12073)	355	8	82	\$525,000
COLDWATER SOUTHWEST SUBWATERSHED I/I REDUCTION (ST. CHARLES ROCK RD AND ASHBY RD) (12125)	1,700	12-15	118	\$2,000,000
ERA AVE. 5800 BLOCK SEWER SEPARATION (10856)	190	12	2	\$113,000
HERMITAGE SANITARY RELIEF (SKME-615) (10863)	3,700	8 - 18	1	\$2,065,000
NORTH WEBSTER CC, POCAHONTAS, SOUTH BRENTWOOD I/I REDUCTION (S BRENTWOOD BLVD AND MANCHESTER) (12363)	1,000	12	84	\$600,000
UNIVERSITY CITY I/I REDUCTION - EAST (UR-08 AND UR-09) (11984)	8,400	10 - 42	221	\$5,506,000
VALCOUR AND BURLINGTON RR SANITARY RELIEF AND I/I REDUCTION (VALCOUR RD AND WATSON RD) (12253)	355	12	60	\$500,000
WEBSTER GROVES TRUNK E SANITARY REHABILITATION AND I/I REDUCTION PHASE IV PART 3 (11678)	3,200	12 - 21	40	\$1,903,000
Total	18,900		608	\$13,212,000

Get The Rain Out - FY2019

Private Inflow Removal(PIR) w/o Sewer Construction

Project Name	No. of PIR's	Appropriation Amount
AFFTON I/I REDUCTION (HANOVER, HILDESHEIM-WEBER RD, SEIBERT, AND HAMBURG) (12075)	121	\$510,000
FRONTENAC, WINDING RIDGE, DEER CREEK HILL I/I REDUCTION (S QUAD I-64 AND CLAYTON RD) (12186)	30	\$190,000
GREEN PARK AND LAKESHIRE I/I REDUCTION (TESSON FERRY RD AND GREEN PARK RD) (12372)	28	\$231,000
LAY RD - GALLERIA I/I REDUCTION (CLAYTON RD AND LAY RD) (12327)	37	\$500,000
NORTH FOREST AND BROOKSIDE I/I REDUCTION (SUMMIT AVE AND MARSHALL AVE) (12362)	84	\$500,000
SUGAR CREEK I/I REDUCTION (W ADAMS AVE AND COUCH AVE) (12223)	61	\$590,000
TOWNE SOUTH AND BRUNSTON I/I REDUCTION (AMBS RD AND TOWNE CENTRE DR) (12235)	104	\$125,000
WESTBOROUGH - LUTHER - MERMOD PLACE I/I REDUCTION (N KIRKWOOD RD TO I-44 AND BERRY RD) (12278)	102	\$220,000
Total	567	\$2,866,000

Get The Rain Out City Shed and Combined Sewer Relief



Get The Rain Out - FY2019 City Shed and Combined Sewer Projects

Project Name	Scope	Appropriation Amount
CLARA S23 COMBINED SEWER IMPROVEMENT (12836)	190 FEET OF 18-INCH COMBINED SEWER.	\$100,000
HARLEM - BADEN RELIEF PHASE IV (HEBERT) (GOODFELLOW TO HAMILTON) (11769)	7,200 FEET OF 12-INCH TO 48-INCH SEWER, AND 3,000 FEET OF SEWER.	\$4,430,000
JENNINGS STATION ROAD / NORTH BADEN BASIN (11142)	CONSTRUCT DETENTION BASIN, 1,300 FEET OF 12-INCH TO 36-INCH STORM SEWER, AND RAIN GARDENS.	\$2,100,000
OLIVE / WASHINGTON - GRAND TO VANDEVENTER COMBINED SEWER RELIEF (12702)	3,000 FEET OF 12-INCH TO 36-INCH STORM SEWER, TO SEPARATE STORM FLOWS FROM THE COMBINED SEWER SYSTEM.	\$1,250,000
CITY LAKES STORAGE MODIFICATIONS FOR CSO CONTROL (12794)	MODIFY LAKES AND BASINS IN THE CTIY OF ST. LOUIS TO PROVIDE WET WEATHER STORAGE.	\$325,000
DEGIVERVILLE COMBINED SEWER IMPROVEMENTS (11136)	PERFORM POINT REPAIRS AND REHABILITATION OF LATERAL CONNECTIONS, AND IMPROVE ACCESS TO MANHOLES.	\$3,000,000
	Subtotal	\$11,205,000
CSO VOLUME REDUCTION GREEN INFRASTRUCTURE PROGRAM (11146)		\$5,000,000
	Total	\$16,205,000

Four Focus Areas for MSD Project Clear

Sanitary and Combined Wastewater

Stormwater

Get the Rain Out

Repair & Maintain

Build System Improvements

Repair & Maintain

- Stormwater Disconnections²
- Rainscaping¹
- City Sheds Program¹
- Combined Sewer Separations¹
- System Maintenance
- System Inspection
- System Rehabilitation and Replacement**
- Fats, Oil and Grease Control Program
- Emergency Response



¹Combined sewer area only activities
²Separate sewer area only activities

Repair and Maintain- FY2019



REPAIR AND MAINTAIN- FY2019



- Cured-In-Place Pipe (CIPP)/Rehabilitation Projects
- ▲ Pump Station Projects
- ★ Treatment Plant Projects



Repair and Maintain- FY2019 Cured-In-Place/Rehabilitation Projects

Project Name	Pipe Footage	Appropriation Budget
BISSELL - COLDWATER - MISSOURI - MERAMEC PUBLIC I/I REDUCTION (2019) CONTRACT A (12029)	97,115	\$8,900,000
BISSELL - COLDWATER - MISSOURI - MERAMEC PUBLIC I/I REDUCTION (2019) CONTRACT C (12026)	76,025	\$5,900,000
DEER CREEK PUBLIC I/I REDUCTION (2019) CONTRACT A (12042)	73,510	\$5,745,000
GREEN PARK AND LAKESHIRE PUBLIC I/I REDUCTION (TESSON FERRY RD AND GREEN PARK RD) (12510)	44,000	\$5,340,000
INFRASTRUCTURE REPAIRS (REHABILITATION) (2019) CONTRACT A (12017)	45,000	\$2,500,000
INFRASTRUCTURE REPAIRS (REHABILITATION) (2019) CONTRACT B (12018)	45,000	\$2,500,000
LEMAY PUBLIC I/I REDUCTION (2019) CONTRACT D (12038)	54,500	\$4,223,000
MACKENZIE PUBLIC I/I REDUCTION (RESURRECTION CEMETERY, WEHNER PARK, KENRICK SEMINARY, AND NERINX HALL) (12511)	46,500	\$6,840,000
RIVERSIDE AND YARNELL SANITARY RELIEF REHABILITATION (13079)	4,200	\$1,600,000

Repair and Maintain- FY2019 Cured-In-Place/Rehabilitation Projects

Project Name	Pipe Footage	Appropriation Budget	Future Appropriation	Total Construction Budget
CAULKS CREEK FORCE MAIN REHABILITATION (11789)	30,000	\$9,000,000	\$8,000,000	\$17,000,000
GRAVOIS TRUNK (WHITECLIFF TO RDP) SANITARY REHABILITATION (FANNIE AVE TO PARDEE LANE) (10496)	37,000	\$15,000,000	\$15,000,000	\$30,000,000
Total	552,850	\$67,548,000	\$23,000,000	\$90,548,000

Repair and Maintain - FY2019 Pump Station Projects

Project Name	Scope	Appropriation Budget
EARTH CITY LAKE FRONT NORTH PUMP STATION (P-711) REPLACEMENT (12154)	REPLACE PUMP STATION P-711.	\$550,000
EARTH CITY SHORELINE PUMP STATION (P-704) REPLACEMENT (12155)	REPLACE PUMP STATION P-704.	\$600,000
GLEN EAGLES PUMP STATION (P-189) RELOCATION / REPLACEMENT (12914)	RELOCATE AND RECONSTRUCT EXISTING DUPLEX SUBMERSIBLE PUMP STATION TO ADJACENT SITE, INCLUDING DETENTION STORAGE.	\$600,000
LEMAY 1 PUMP STATION (P-301) SLUICE GATE REPLACEMENT (13041)	REMOVE AND REPLACE 6 SLUICE GATES IN THE LEMAY 1 PUMP STATION WET WELL, AND INSTALL ADDITIONAL STOP LOG.	\$1,500,000
PUMP STATION REPLACEMENT PROJECTS (PHASE I) (P-708) (11701)	REPLACE PUMP STATIONS P-708 (EARTH CITY UPS).	\$1,300,000
Total		\$4,550,000

Repair and Maintain - FY2019 Treatment Plant Projects

Project Name	Scope	Appropriation Budget
BISELLE POINT WWTF REDUNDANT SLUDGE ACCEPTANCE AND BELT FILTER PRESS REPLACEMENT (12828)	CONSTRUCT REDUNDANT SLUDGE ACCEPTANCE SYSTEM AND REPLACE THE BELT FILTER PRESS CONVEYOR SYSTEM AT THE BISELLE PLANT.	\$6,500,000
LEMAY WWTF REDUNDANT WATER SERVICE (12721)	INSTALL SECONDARY WATER SERVICE FROM THE SOUTH, TO PROVIDE A REDUNDANT FEED TO THE FACILITY.	\$470,000
LOWER MERAMEC WWTF CORROSION AND HUMIDITY CONTROL IMPROVEMENTS (12499)	CONSTRUCT IMPROVEMENTS TO REDUCE HUMIDITY, AND REPLACE CORRODED ELEMENTS.	\$2,500,000
Total		\$9,470,000

Repair and Maintain- FY2019 Infrastructure Repair Projects

- ✦ **\$8,500,000 for Sanitary Collection System Infrastructure Repairs**
 - Approximately 450 projects (\$9,000 - \$11,000)
 - Approximately 25 projects >\$25,000

- ✦ **\$3,000,000 for Facility Infrastructure Repairs (Treatment Plants and Pump Stations)**
 - Estimate between 5 and 10 projects

Four Focus Areas for MSD Project Clear

Sanitary and Combined Wastewater		Stormwater	
Get the Rain Out	Repair & Maintain	Build System Improvements	Repair & Maintain

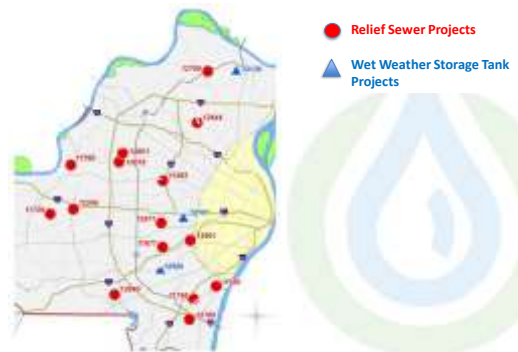
- ✦ Stormwater Disconnections²
- ✦ Rainscaping¹
- ✦ City Sheds Program¹
- ✦ Combined Sewer Separations¹

- ✦ System Maintenance
- ✦ System Inspection
- ✦ System Rehabilitation and Replacement
- ✦ Fats, Oil and Grease Control Program
- ✦ Emergency Response

- ✦ Tunnels
- ✦ Storage Tanks
- ✦ Relief Sewers
- ✦ High-Rate Treatment¹

¹Combined sewer area only activities
²Separate sewer area only activities

Build System Improvements- FY2019



Build System Improvements - FY2019 Relief Sewer Projects

Project Name	Pipe Footage	Pipe Size (inches)	Appropriation Amount
CREVE COEUR CREEK SANITARY TRUNK SEWER RELIEF PHASE VI (SKME-021) (11729)	7,750	15 - 24	\$7,500,000
DAMMERT AND BROADWAY SANITARY RELIEF (SKME-551) PART 2 (11156)	10,000	8 - 24	\$4,500,000
FF-18 VILLA DORADO - LACKLAND - PAGE SANITARY RELIEF (ADIE RD TO VILLA DORADO DR) (10018)	4,776	8 - 24	\$7,075,000
FORDER SANITARY INTERCONNECTION (FORDER RD TO RINGER RD) (12180)	100	10	\$237,000
GRAVOIS TRUNK (WHITECLIFF TO RDP) SANITARY RELOCATION PHASE VI (BUCKLEY RD TO UNION RD) (11766)	2,775	8	\$2,500,000

Build System Improvements - FY2019 Relief Sewer Projects (cont.)

Project Name	Pipe Footage	Pipe Size (inches)	Appropriation Amount
N CLARK AVE 49 SANITARY SEWER REPLACEMENT (12444)	820	8	\$610,000
N HIGHWAY 67 AT COLDWATER CREEK SANITARY SEWER REPLACEMENT (12786)	461	8	\$560,000
RDP FOULWATER SEWER GRIT CHAMBER ELIMINATION (DEER CREEK) (12901)	185	72	\$660,000
WEBSTER GROVES TRUNK E SANITARY REHABILITATION AND I/I REDUCTION PHASE III (11677)	1,480	8	\$1,130,000
WOODS MILL SANITARY RELIEF (I-64 TO BROOK MILL LN) (12296)	2,790	8 - 15	\$1,375,000

Build System Improvements - FY2019 Relief Sewer Projects

Project Name	Pipe Footage	Pipe Size (Inches)	FY2019 Appropriation Amount	Future Year Appropriation	Total Construction Budget
82ND STREET TO I-170 SANITARY RELIEF (UR-08, UR-09) (11993)	5,800	15 - 30	\$4,000,000*	\$4,000,000	\$8,000,000
CAULK'S CREEK FORCE MAIN (RIVER VALLEY RD TO L-52) (11790)	18,000	30 - 36	\$15,000,000*	\$25,000,000	\$40,000,000
RIVERSIDE AND YARNELL SANITARY RELIEF REPLACEMENT (12840)	5,700	42	\$3,300,000*	\$3,300,000	\$6,600,000
Total	60,637		\$48,447,000	\$32,300,000	\$80,747,000

Build System Improvements - FY2019 Wet Weather Storage Tank Projects

Project Name	Scope	Appropriation Amount	Future Appropriation	Total Construction Budget
COLDWATER UPSTREAM PUMP STATION (P-180) STORAGE	CONSTRUCT 500 FEET OF 96-INCH PIPE IN ORDER TO PROVIDE 180,000 GALLONS OF TEMPORARY STORAGE.	\$1,280,000		
GRAVOIS TRUNK SANITARY STORAGE FACILITY (PARDEE LN AND PARDEE RD) FACILITY	CONSTRUCT A 7.8 MILLION GALLON SANITARY STORAGE FACILITY	\$20,000,000	\$20,000,000	\$40,000,000
ELINOR AVE. TEMPORARY SANITARY STORAGE FACILITY (12161)	CONSTRUCT 110 FEET OF 8-INCH TO 24-INCH SEWER IN ORDER TO PROVIDE 1,400 GALLONS OF TEMPORARY STORAGE.	\$125,000		
Total		\$21,405,000	\$20,000,000	\$41,405,000

Four Focus Areas for MSD Project Clear

Sanitary and Combined Wastewater

- Get the Rain Out**
 - Stormwater Disconnections²
 - Rainscaping¹
 - City Sheds Program¹
 - Combined Sewer Separations¹
- Repair & Maintain**
 - System Maintenance
 - System Inspection
 - System Rehabilitation and Replacement
 - Fats, Oil and Grease Control Program
 - Emergency Response

Stormwater

- Build System Improvements**
 - Tunnels
 - Storage Tanks
 - Relief Sewers
 - High-Rate Treatment¹
- Repair & Maintain**
 - Regulatory Compliance
 - Repair & Maintenance

¹Combined sewer area only activities
²Separate sewer area only activities

Stormwater- FY2019



- Storm Sewer Projects
- ▲ Channel Projects

Stormwater - FY2019 Sewer Projects

Project Name	Pipe Footage	Pipe Size (Inches)	Appropriation Amount
BARKMAN STORM SEWER IMPROVEMENTS (11392)	160	12	\$75,000
BAXTER ROAD #273 AND #301 STORM SEWER (11593)	200	12	\$127,000
BROGAN DALE CIRCLE STORM SEWER (10380)	370	12 - 36	\$495,000
BROOKVALE TERRACE - PARKFIELD TERRACE STORM IMPROVEMENTS (11600)	1,540	12 - 90	\$700,000
CORONA PARK STORM SEWER PHASE 2B (10210)	1,240	12 - 24	\$550,000
CRESTWICK DRIVE #9733 AND 9741 STORM SEWER (SUNSET HILLS 11) (11514)	430	12 - 18	\$210,000
DICKENS AVENUE #470 STORM SEWER (11299)	106	15	\$50,000
HOFFMEISTER - PARDELLA STORM SEWER IMPROVEMENTS (11647)	1,097	15 - 30	\$573,000
LACKLAND RD. - UCEYLE AVE. STORM SEWER (11304)	1,005	12 - 30	\$270,000
LIBERTY AVE. 10000 BLOCK STORM SEWER (11306)	850	12 - 36	\$657,000

Stormwater - FY2019 Sewer Projects (cont.)

Project Name	Pipe Footage	Pipe Size (Inches)	Appropriation Amount
LINDEN #1064 STORM SEWER (10289)	1,200	12 - 72	\$1,300,000
MAR ANN CT. #9819 STORM IMPROVEMENT (11488)	375	18	\$290,000
MARTYRIDGE CT. #4307 STORM SEWER (MGMB-170) (11594)	420	15 - 24	\$175,000
MIRIAM AND BURNS STORM SEWER (11450)	425	12	\$250,000
ROLAND BLVD STORM SEWER (11016)	755	12 - 42	\$250,000
SAXONHALL - VENUS - BRISTOL HALL STORM SEWER (11420)	320	12 - 18	\$130,000
SCHAEFFER PLACE 2000 BLOCK STORM SEWER (11621)	315	12	\$160,000
SCHUETZ ROAD AND WILLOW BROOK COVE STORM SEWERS (11511)	130	30	\$50,000
STONE HILL DR 4701 STORM SEWER (11033)	235	12	\$270,000
SUMMER LAKE DR. #15637 STORM SEWER (11592)	475	12 - 24	\$250,000
WILLOW HILL STORM SEWER (LADUE 1614A) (12938)	2,435	12 - 24	\$500,000
TOTAL	14,983		\$7,332,000

Stormwater - FY2019 Cured-In-Place/Rehabilitation Projects

Project Name	Scope	Appropriation Amount
Infrastructure Repairs (Rehabilitation) Stormwater (2019) (13043)	CONSTRUCT CURED-IN-PLACE PIPE INSTALLATION FOR SYSTEM REHABILITATION AND REPAIR, AS NEEDS ARE IDENTIFIED BY SEWER CLEANING AND INSPECTION EFFORTS.	\$4,000,000
TOTAL		\$4,000,000

Stormwater - FY2019 Channel Projects

Project Name	Scope	Appropriation Amount
KENWOOD - JUNE CREEK BANK STABILIZATION (11476)	35 FEET OF 36-INCH DIAMETER STORM SEWER, AND 1,315 FEET OF MODULAR BLOCK WALL AND BANK STABILIZATION.	\$1,643,000
PATRINA COURT BANK STABILIZATION (11018)	700 FEET OF ROCK BLOCK TOE AND BIOSTABILIZATION.	\$530,000
QUEEN ANNE PLACE AT SAPPINGTON STORM IMPROVEMENTS (12727)	430 FEET OF IMPROVED STORM CHANNEL.	\$350,000
TIMBER TRAIL - BRIAR RIDGE CHANNEL IMPROVEMENTS (11224)	130 FEET OF MODULAR BLOCK WALL, 100 FEET OF ROCK BLOCK WALL, AND 140 FEET OF COMBINATION SLOPE PROTECTION.	\$249,000
WINCHESTER DRIVE 7120 BANK STABILIZATION (11026)	CONSTRUCT 170 FEET OF 6-FOOT TO 9-FOOT HIGH MODULAR BLOCK WALL.	\$249,000
TOTAL		\$3,021,000

Repair and Maintain- FY2019 Infrastructure Repair Projects

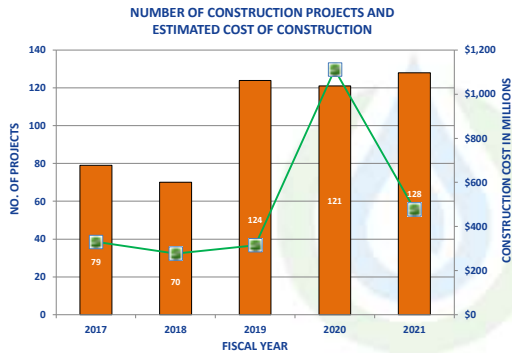
- ❖ \$2,500,000 To Be Appropriated for Stormwater Infrastructure Repairs
 - Approximately \$2.0 M used for 200 small projects (\$9000-\$11,000)
 - Approximately \$500,000 used for 10 projects > \$25,000

Summary-FY2019 Construction CIRP

Focus Area	No. Projects	FY2019 Appropriation Budget	Future Appropriation	Total Construction Budget
Get the Rain Out	22	\$27,283,000	--	\$27,283,000
Get the Rain Out (CSO Volume Reduction Funds)		\$5,000,000		\$5,000,000
Repair and Maintain (specific projects)	19	\$81,568,000	\$23,000,000	\$104,568,000
Repair and Maintain (Infrastructure Repair Funds)	31*	\$11,500,000		\$11,500,000
Build System Improvements	16	\$69,852,000	\$82,000,000	\$151,852,000
Stormwater (specific projects)	27	\$16,853,000	--	\$16,853,000
Stormwater (IR Funds for Projects Over \$25,000)	10*	\$500,000		\$50,000
TOTAL	125*	\$210,056,000	\$105,000,000	\$315,056,000

* Estimated based on historical trends.

Putting Out The Work



FY2020 – Capital Construction Program

Focus Area	Project Type	No. of Projects	FY2020 Appropriation Budget	Future Appropriation	Total Construction Budget
GET THE RAIN OUT	PIR with Sewers	7	\$7,954,000		
	PIR w/o Sewers	4	\$1,345,000		
	City Shed and Combined Sewers	3	\$12,600,000	\$9,380,000	
	Total	14	\$21,899,000	\$9,380,000	\$31,279,999
	Private I/I Reduction Program	--	\$500,000		
	Green Infrastructure	--	\$6,000,000		

FY2020 – Capital Construction Program

Focus Area	Project Type	No. of Projects	Appropriation Budget
REPAIR & MAINTAIN	Cured-In-Place (CIPP)	8	\$34,005,000
	Shotcrete Rehabilitation	1	\$6,500,000
	Pump Stations	4	\$7,440,000
	Treatment Plants	1	\$2,750,000
	Miscellaneous	1	\$2,750,000
	Subtotal	15	\$53,454,000
	Infrastructure Repair (Facilities)	6*	\$3,000,000
	Infrastructure Repairs (Collection System)	25*	\$8,500,000
Total	46¹	\$64,954,000	

*Estimated Number of Projects Based on Historical Trend

FY2020 – Capital Construction Program

Focus Area	Project Type	No. of Projects	Appropriation Budget	Future Appropriation	Total Construction Budget
BUILD SYSTEM IMPROVEMENTS	Relief Sewers	14	\$53,780,000	\$33,345,000	\$87,125,000
	Pump Stations	3	\$32,670,000	\$46,885,000	\$79,555,000
	Wet Weather Storage	2	\$60,000,000	\$50,000,000	\$110,000,000
	Tunnel	1	\$66,755,000	\$597,785,000	\$664,640,000
	Total	20	\$213,205,000	\$785,235,000	\$998,440,000

FY2020 – Capital Construction Program

Focus Area	Project Type	No. of Projects	Construction Budget
STORMWATER	Sewers	26	\$9,526,000
	Channel Stabilization	4	\$1,936,000
	Miscellaneous - Building	1	\$1,000,000
	Subtotal	31	\$13,875,000
	Infrastructure Repair	10 ¹	\$2,500,000
Total	41¹	\$16,375,000	

¹Estimated number of projects based on historical trends

Summary-FY2020 Construction CIRP

Focus Area	No. Projects	Appropriation Budget	Future Appropriations	Total Construction Budget
Get the Rain Out	14	\$21,899,000	\$9,380,000	\$31,279,000
Repair and Maintain	46*	\$64,954,000	--	\$64,954,000
Build System Improvements	20	\$213,205,000	\$785,235,000	\$998,440,000
Stormwater	41	\$16,375,000		\$16,375,000
TOTAL	121	\$316,433,000	\$794,615,000	\$1,111,048,000

Estimated number of projects based on historical trends

FY2021 – Capital Construction Program

Focus Area	Project Type	No. of Projects	Appropriation Budget	Future Appropriation	Total Construction Budget
GET THE RAIN OUT	PIR w/o Sewers	1	\$105,000		\$105,000
	City Shed and Combined Sewers	6	\$46,143,000*	\$33,500,000	\$79,643,000
	Total	7	\$46,248,000	\$33,500,000	\$79,748,000
	Green Infrastructure		\$6,000,000		
	Private I/I Removal Program-		\$500,000		

FY2021 – Capital Construction Program

Focus Area	Project Type	No. of Projects	Appropriation Budget	Future Appropriation	Total Construction Budget
REPAIR & MAINTAIN	Cured-In-Place (CIPP)	7	\$37,010,000		\$37,010,000
	Pump Stations	2	\$9,000,000	\$4,000,000	\$13,000,000
	Treatment Plants	2	\$17,800,000	\$16,500,000	\$34,300,000
	Subtotal	11	\$63,810,000		\$63,810,000
	Infrastructure Repairs	40*	\$15,000,000		\$15,000,000
	Total	51*	\$78,810,000	\$20,500,000	\$99,310,000

*Estimated number of projects based on historical trend

FY2021 – Capital Construction Program

Focus Area	Project Type	No. of Projects	Appropriation Budget	Future Appropriation	Total Construction Budget
BUILD SYSTEM IMPROVEMENTS	Relief Sewers	19	\$58,133,000	\$3,300,000	\$61,433,000
	Storage	1	\$964,000		\$964,000
	Tunnel	1	\$25,000,000	\$184,000,000	\$209,000,000
	Total	22	\$96,597,000	\$187,300,000	\$283,897,000

FY2021 – Capital Construction Program

Focus Area	Project Type	No. of Projects	Appropriation Budget
STORMWATER	Sewers	21	\$17,977,000
	Channel Stabilization	7	\$4,159,000
	Subtotal	28	\$22,136,000
	Infrastructure Repair	20*	\$5,000,000
	Total	48*	\$27,136,000

*Estimated number based on historical trend

Summary-FY2021 Construction CIRP

Focus Area	No. Projects	Appropriation Budget	Future Appropriations	Total Construction Budget
Get the Rain Out	7	\$46,248,000	\$33,500,000	\$79,748,000
Repair and Maintain	51*	\$78,810,000	\$20,500,000	\$99,310,000
Build System Improvements	22	\$96,597,000	\$187,300,000	\$283,897,000
Stormwater	48*	\$27,136,000	--	\$27,136,000
TOTAL	128*	\$236,291,000	\$241,300,000	\$477,591,000

*Estimated number based on historical trend

The Future of Stormwater Funding

Approved Proposition S: April 2016

- ❏ Voters passed Proposition S in April 2016
- ❏ The issue addressed by Proposition S was unequal storm sewer operations and maintenance funding across our service area
- ❏ Proposition S simplified and equalized these services with regard to operations and maintenance in the public storm sewer system
- ❏ Now, MSD is presenting a plan to its Rate Commission to fund capital projects addressing erosion and flooding throughout the District

Current Funding and Services

District Funding:

$$\begin{aligned} & \$0.0197 \text{ regulatory tax} \\ & + \$0.10 \text{ stormwater tax} \\ & = \$0.1197 \text{ total tax rate} \end{aligned}$$

- Includes regulatory compliance
- Includes complete operations and maintenance
- Includes limited funding for necessary capital improvements:
 - FY17-20: ~\$67M Stormwater Capital Program (**FINITE PROGRAM**)



Unfunded Stormwater Issues

Localized Flooding

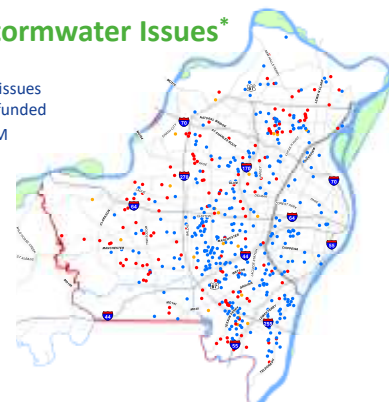
Erosion

Regional Flooding



Unfunded Stormwater Issues*

- ❏ ~500 stormwater issues identified, but unfunded
- ❏ Total cost: ~\$560M



*As of August 2016

MSD Recommended Stormwater Proposal

- ❏ Impervious area based fee
- ❏ Vote in April 2019
- ❏ Will generate ~ \$30 M Total Dollars/year
- ❏ Will generate ~ \$18M in Construction Dollars/year
- ❏ Impervious Fee: ~ \$27/year (average single family home)

Stormwater Proposal Schedule

- ❏ Presented to Rate Commission February 26, 2018
- ❏ Public Hearings May through July 2018
- ❏ Proposed Rate to MSD Board September 2018
- ❏ Approved by MSD Board – Oct-Dec. 2018
- ❏ Vote in April 2019
- ❏ CIRP commences in MSD FY 2020