#### CAPITAL IMPROVEMENTS PROGRAM

#### FY 2015 | Project Rollout

FEBRUARY 18, 2014









#### Welcome.

TERRY LEEDS, DIRECTOR OF WATER SERVICES



# Agenda

- About Kansas City Water Services
- FY 2014 Highlights
- Water Services' 5 Year Capital Improvements Program
- FY 2015 Program Highlights
- FY 2015 Design & Construction Projects
  - Water
  - Wastewater
  - Stormwater





#### ABOUT Kansas City Water Services

#### **Kansas City Water Services**





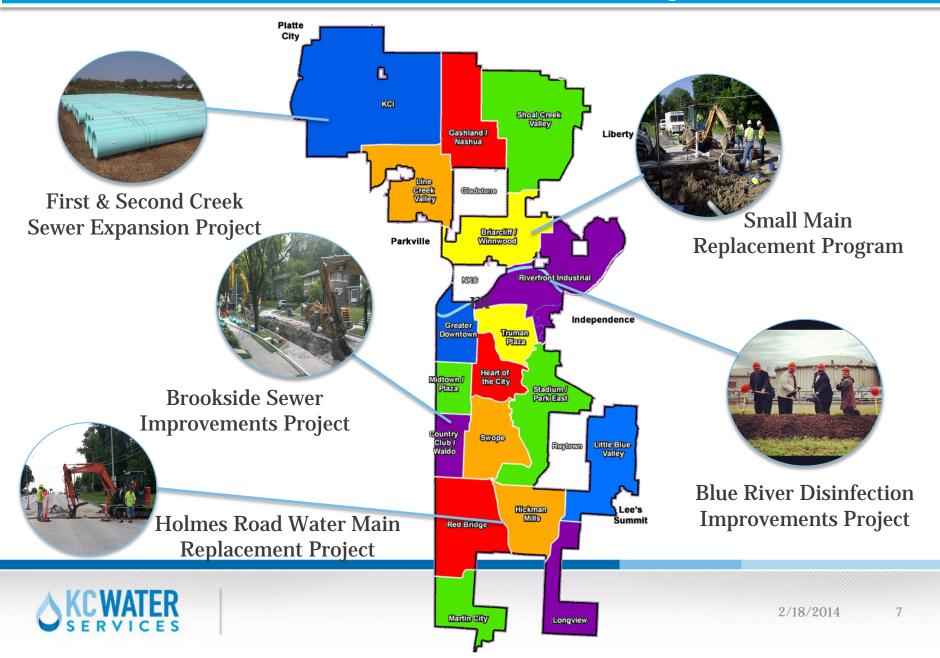
# Stormwater





#### FY 2014 Highlights

#### \$175 M Investment, 85+ Projects



### **Utility Projects: FY 2014**

**Emergency Power Generation Phase II** 

• \$3,200,000 | March 4, 2014 | Water Pump Station

**Concrete Rehabilitation Phase V** *Flat Work and Intake* 

• \$2,000,000 | March 11, 2014 | Water Treatment

**Water Treatment Plant** *West Header and Valves at Secondary* 

• \$2,200,000 | March 25, 2014 | Water Treatment



**Utility Projects: FY 2014** 

**City Wide Curb Stop Replacement** 

• \$3,000,000 | March 2014 | Water Distribution

**City Wide Service Line Kill Contract** 

• \$1,000,000 | March 2014 | Water Distribution

**City Wide Air Release Valve Replacement** 

• \$600,000 | March 2014 | Water Distribution



#### **Utility Projects: FY 2014**

**Harlem Sewer Force Main Rehabilitation** 

• \$1,200,000 | March 2014 | Wastewater Collection

**Green Infrastructure Pilot Project** 

• \$400,000 | March 2014 | DPS/ Wastewater OCP

**East Bottoms Pump Station Rehab Phase II** 

• \$2,400,000 | April 2014 | Water Pump Station





WATER SERVICES' FIVE YEAR

Capital Improvements Program FY 2015 - 2019

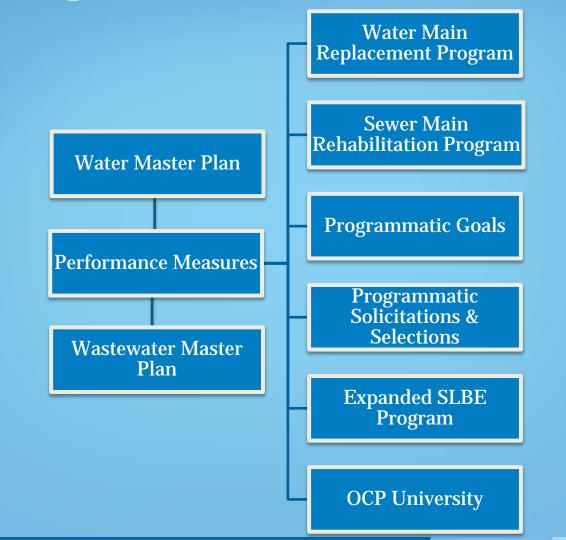
#### Water Services' Capital Improvements Program

A customer-focused plan for KC's largest infrastructure investment.

- \$1 billion investment over 5 years
- Over 18,000 direct and indirect jobs created
- Projects designed to:
  - Improve water quality
  - Protect public health
  - Increase system reliability
  - Meet regulatory requirements
  - Promote development
  - Building infrastructure for Kansas City's future



#### **Capital Improvements Initiatives**





## **OCP University**

#### **Educational Program for MBE, WBE & SLBE Firms:**

- Business development & technical assistance
- Expands local skills and capabilities in-line with project needs
- Prepares minority firms to become prime consultants



2/6/2014

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### 5 Year Water CIP: Numbers by Project Type

Project Type	Number of Projects	% of Total
Treatment	7	3.1%
Pump Station	7	3.1%
Transmission	6	2.6%
Distribution	207	90.8%
Storage	1	.4%
Total	228	100%



#### 5 Year Water CIP: Amounts by Project Type

Project Type	FY 15	FY 16	FY 17	FY 18	FY 19	Total
Treatment	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$15,000,000
Pump Station	\$10,600,000	\$6,750,000	\$10,300,000	\$9,800,000	\$11,000,000	\$51,450,000
Transmission	\$6,365,000	\$12,520,000		\$2,500,000		\$21,385,000
Distribution	\$54,900,000	\$48,330,000	\$56,700,000	\$54,700,000	\$56,000,000	\$270,630,000
Storage	\$3,000,000					
TOTAL	\$77,865,000	\$70,600,000	\$70,000,000	\$70,000,000	\$70,000,000	\$358,465,000



#### **5 Year Maintenance Program: Water**

	FY15	FY16	FY17	FY18	FY19
Valve Exercising	\$1,200,000	\$1,300,000	\$600,000	\$600,000	\$600,000
Supplemental Workforce	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000
Air Release Valves	\$300,000	\$200,000			
Curb Stops	\$1,000,000	\$500,000			
Service Line Kill	\$500,000	\$100,000			
Hydrant Repair	\$800,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Valve Replacement	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
TOTAL:	\$8,300,000	\$7,600,000	\$6,100,000	\$6,100,000	\$6,100,000



### 5 Year Wastewater CIP: Numbers by Project Type

Project Type	Number of Projects	% of Total
Treatment	37	18%
Pump Station	4	2%
Collection Systems	40	19%
OCP	128	61%
TOTAL	209	100%



### 5 Year Wastewater CIP: Amounts by Project Type

Project Type	FY 15	FY 16	FY 17	FY 18	FY 19	TOTAL
WW Treatment	\$10,500,000	\$16,335,000	\$27,215,000	\$23,000,000		\$77,050,000
Pump Stations	\$2,500,000	\$5,000,000	\$7,750,000			\$15,250,000
Collection System	\$17,560,000	\$23,360,000	\$15,060,000	\$15,060,000	\$15,060,000	\$86,100,000
OCP	\$44,550,000	\$175,465,000	\$135,135,000	\$113,100,000	\$120,100,000	\$588,350,000
TOTAL	\$75,110,000	\$220,160,000	\$185,160,000	\$151,160,000	\$135,160,000	\$766,750,000



#### 5 Year Maintenance Program: Wastewater

	FY15	FY16	FY17	FY18	FY 19
Private Line Repair	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000
Supplemental Workforce	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000
CCTV	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Line Cleaning	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Fly-Over	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
CIPP	\$4,500,000	\$7,000,000	7,000,000	\$7,000,000	\$7,000,000
Main Repair	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000
TOTAL:	\$15,560,000	\$18,060,000	\$18,060,000	\$18,060,000	\$18,060,000



# FY 15 Year Stormwater CIP: *Numbers by Project Type*

Project Type	Number of Projects	% of Total
Stormwater	7	47%
Waterways	8	53%
Total	15	100%



### **5 Year Maintenance Program: Stormwater**

	FY15	FY16	FY17	FY18	FY19
Levee & Channel Maintenance	\$790,000	\$790,000	\$790,000	\$790,000	\$790,000
Storm Monitoring System	\$236,500	\$236,500	\$236,500	\$236,500	\$236,500
MS4 Monitoring & Support	\$256,000	\$256,000	\$256,000	\$256,000	\$256,000
Catch Basin Replacement	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
TOTAL:	\$1,782,500	\$1,782,500	\$1,782,500	\$1,782,500	\$1,782,500





FY 2015 Program Highlights

#### Water Main Replacement Program

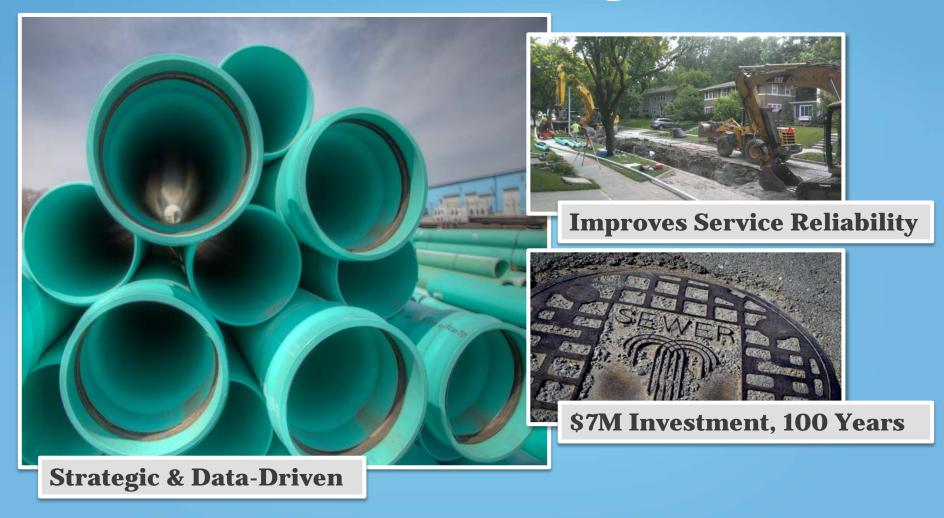
**Investing in the Future of Kansas City's Water Infrastructure** 

- Strategic & data driven
- Proactive approach
- Fewer service interruptions for customers
- Strategically replaces 1% of system annually
- 100 Year Plan, \$30M investment/year

				Р	roba	bility	of Fa	ailure				G	iroup	
	_	1	2	3	4	5	6	7	8	9	10		Miles	Percent
	10	165.1	13.1	7.2	3.1	1.7	0.7	1.0	0.4	0.2	0.9	Α	19.1	0.7%
ICe	9	101.4	9.0	3.1	2.3	1.0	0.6	0.5	0.9	0.2	1.1	в	37.6	1.4%
ailure	8	47.3	10.9	7.1	3.0	2.2	1.3	0.2	1.3	1.3	1.3	с	42.6	1.6%
of F	7	56.8	17.8	5.7	5.2	4.6	2.5	CK.	2.1	2.3	2.3	D	106.0	4.0%
	6	8.8	24.0	20.4	9.0	7.0	28	3.1	4.4	2.3	9.2	Е	143.7	5.4%
enc	5	115.4	90.2	32.6	21.8	35	6.8	13.8	7.6	9.0	26.5	F	135.5	5.1%
nsequence	4	10.5	47.6	43.2	ner	19.0	28.1	14.5	19.6	29.4	33.7	G	193.8	7.2%
<b>NS</b>	3	240.6	187,4	105 7	62.8	54.4	23.4	34.5	51.0	30.8	16.7	н	221.5	8.3%
ŝ	2	52.3	230 5	133.1	24.8	6.8	30.3	65.3	43.2	21.4	-	z	1779.8	66.4%
	1 ·	21.7	3.8	1.7	9.8	1.3	-	0.2	29.9	-	-	Total:	2,679.6	100.0%
		Miles							То	tal Miles:	2,679.6			



#### **Sewer Rehabilitation Program**



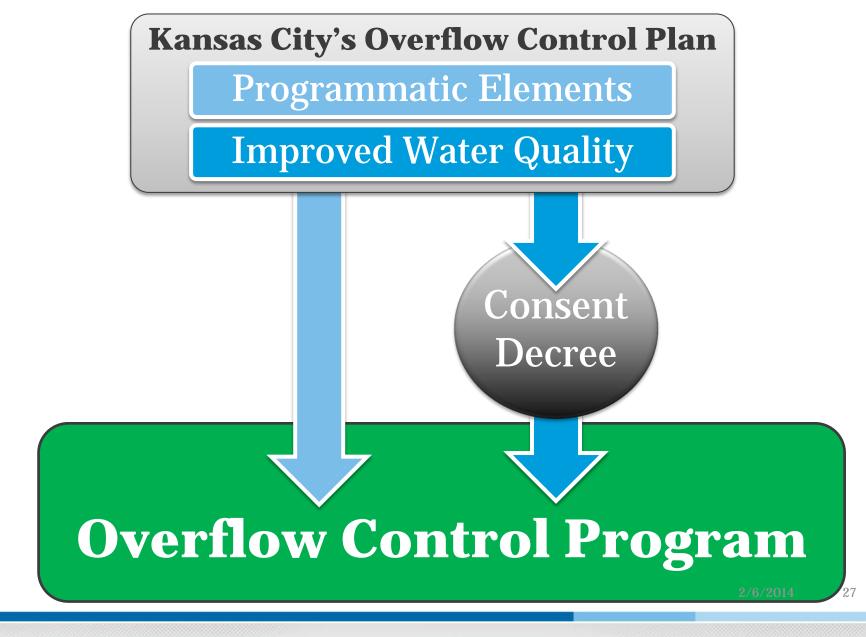


#### Kansas City's Overflow Control Program



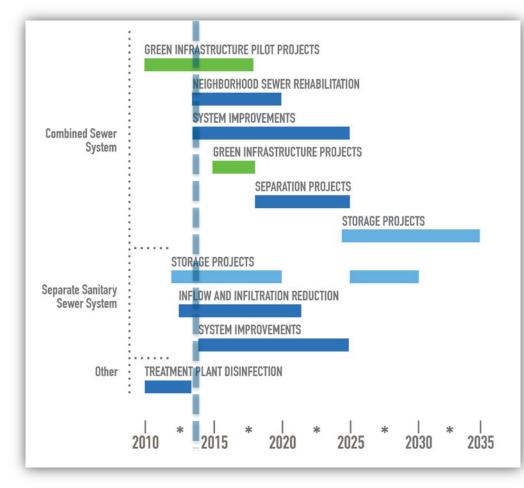
Additional Operating & Maintenance Costs \$72 million per year by 2035







# **Program Implementation**



- Year 4 of 25 year timeline
- First 10 years focus on reducing the problem and improving service
- Most early projects ramping up in planning and design phases
- First green infrastructure pilot complete
- 15 projects in pre-design for consultant selection





Water Infrastructure Design & Construction Projects

FISCAL YEAR 2015

#### **Vivion Road 36" Transmission Main**

• \$1,600,000 | June 2014 | Transmission

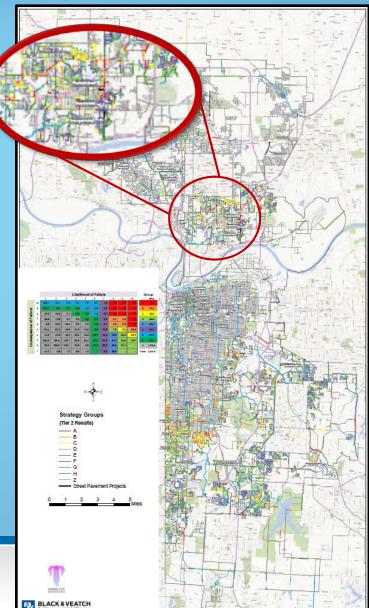




#### Water Main Replacement Program

18 Design; 18 Construction ProjectsProgrammatic MBE/WBE/SLBE GoalsProgrammatic DPS Selection Process

- 1 RFP/Q for 13 projects
- 1 RFP/Q for 5 SLBE-WSDEPS projects
- City-wide selection committee
- Proposal only, no interview
- All DPS Selections made at once





**Water Main Replacement** *Woodland to Kensington, 63<sup>rd</sup> St. to 72<sup>nd</sup> Terr.* 

• \$450,000 | June 2014 | Distribution

**Water Main Replacement** *Walnut to Bennington, St. John to 17th St.* 

• \$420,000 | June 2014 | Distribution

**Water Main Replacement** *Stateline to Holmes, 86<sup>th</sup> Terr. To 132<sup>nd</sup> Terr.* 

• \$300,000 | June 2014 | Distribution



Water Main Replacement Oakley to Marsh' 20<sup>th</sup> St. to 34<sup>th</sup> St.

• \$280,000 | June 2014 | Distribution

**Water Main Replacement** *Stateline to Harrison, 44<sup>th</sup> St. To 75<sup>nd</sup> St.* 

• \$280,000 | June 2014 | Distribution

Water Main Replacement Stateline to Holmes, 75<sup>th</sup> St. to 85<sup>th</sup> St.

• \$275,000 | June 2014 | Distribution



Water Main Replacement NW Waukomis to N Troost, 40<sup>th</sup> St. to 83<sup>rd</sup> St.

• \$260,000 | June 2014 | Distribution

**Water Main Replacement** *N Walrond to N Brighton, NE Russell Rd. to 53<sup>rd</sup> Terr.* 

• \$250,000 | June 2014 | Distribution

Water Main Replacement N Troost to N Kansas, NE Russell Rd to NE Englewood

• \$210,000 | June 2014 | Distribution



Water Main Replacement N Hardesty to N Tullis, 50<sup>th</sup> St. to 62<sup>nd</sup> St.

• \$180,000 | June 2014 | Distribution

Water Main Replacement N Richards to N Brighton, 1<sup>st</sup> St. to 37<sup>th</sup> St.

• \$180,000 | June 2014 | Distribution

Water Main Replacement Lydia to Walrond, 77<sup>th</sup> Terr. to 85<sup>th</sup> St.

• \$165,000 | June 2014 | Distribution



Water Main Replacement Holmes to College, 85<sup>th</sup> St. to 139<sup>th</sup> St.

• \$160,000 | June 2014 | Distribution

Water Main Replacement Holmes to Lydia, 79<sup>th</sup> St. to 85<sup>th</sup> St.

• \$150,000 | June 2014 | Distribution

Water Main Replacement Elmwood to Blue Ridge Cutoff, 47<sup>th</sup> St. to 57<sup>th</sup> St.

• \$135,000 | June 2014 | Distribution



Water Main Replacement Drury to Elm, 80<sup>th</sup> Terr. to 120<sup>th</sup> Terr.

• \$130,000 | June 2014 | Distribution

Water Main Replacement Blue Ridge Cutoff to Norfleet, 38th Terr. to 75<sup>th</sup> St.

• \$115,000 | June 2014 | Distribution

Water Main Replacement Askew to Hardesty, 36<sup>th</sup> St. to 46<sup>th</sup> St.

• \$110,000 | June 2014 | Distribution



Water Main Replacement Hickman Mills to Bristol, 109<sup>th</sup> St. to 113<sup>th</sup> St.

• \$1,750,000 | May 2014 | Distribution

**Water Main Replacement** *Stateline to Virginia, 99<sup>th</sup> St. to 112<sup>th</sup> St.* 

• \$1,630,000 | May 2014 | Distribution

**Water Main Replacement** *St. Andrews to Holmes, 124<sup>th</sup> St. to 135<sup>th</sup> St.* 

• \$1,590,000 | May 2014 | Distribution



Water Main Replacement Manchester to Ashland Ridge, 29<sup>th</sup> St. to 40 Hwy

• \$1,340,000 | May 2014 | Distribution

Water Main Replacement Oakley to Meadowbrook, 50<sup>th</sup> St. to 56<sup>th</sup> St.

• \$930,000 | May 2014 | Distribution

Water Main Replacement Eastern to Sycamore, 43<sup>rd</sup> St. to 51<sup>st</sup> St.

• \$860,000 | May 2014 | Distribution



Water Main Replacement Eastern to Lee's Summit, 70<sup>th</sup> St. to Bannister

• \$2,360,000 | June 2014 | Distribution

Water Main Replacement Stateline to Kenwood, 75<sup>th</sup> St. to 89<sup>th</sup> St.

• \$2,250,000 | June 2014 | Distribution

Water Main Replacement Donnelly to Raytown, Ruskin to Highgrove

• \$1,580,000 | June 2014 | Distribution



Water Main Replacement Jackson to Hardesty, 32<sup>nd</sup> St. to 45<sup>th</sup> St.

• \$2,220,000 | July 2014 | Distribution

Water Main Replacement Cambridge to Elm, 51<sup>st</sup> St. to 74<sup>th</sup> St.

• \$1,530,000 | July 2014 | Distribution

Water Main Replacement Jackson to Grandview, 104<sup>th</sup> St. to Martha Truman

• \$670,000 | July 2014 | Distribution



Water Main Replacement McGee to Chestnut, 65<sup>th</sup> St. to 89<sup>th</sup> St.

• \$4,020,000 | August 2014 | Distribution

Water Main Replacement Oak to Mersington Ave, 39<sup>th</sup> Ter to NE Englewood Rd

• \$3,850,000 | August 2014 | Distribution

Water Main Replacement Jackson to N Brighton Ave., NE 42<sup>nd</sup> St. to Vivion

• \$1,610,000 | August 2014 | Distribution



Water Main Replacement Roanoke to Troost, Missouri River to 51<sup>st</sup> St.

• \$810,000 | August 2014 | Distribution

Water Main Replacement Stateline to Rockhill, 64<sup>th</sup> Terr. to Romany

• \$690,000 | August 2014 | Distribution

Water Main Replacement Indiana to Cindy, 53<sup>rd</sup> St. to Meyer

• \$690,000 | August 2014 | Distribution



**Arrowhead Phase III** North Oak to Englewood

• \$8,765,000 | September 2014 | Transmission





**Shoal Creek Parkway Pump Station & Reservoir** 

• \$5,500,000 | April 2015 | Pump Station

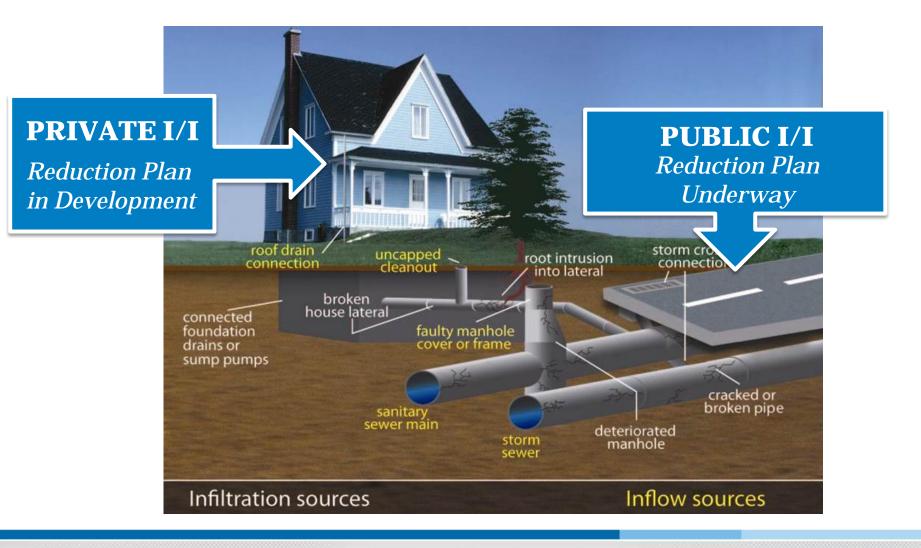






FISCAL YEAR 2015 Wastewater Infrastructure Design & Construction Projects

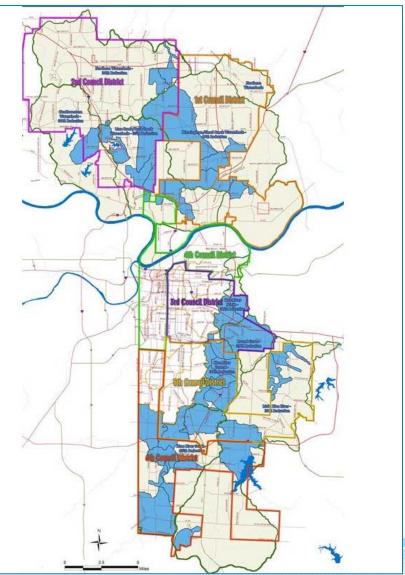
## **Inflow/Infiltration Reduction**





# **I/I Reduction Project Locations**

- 9 Basins
- Consent decree removal requirements: 29% to 45%
- Private I/I accounts for nearly 50% of removal
- Public and private I/I performed in parallel





**I/I Reduction:** *Blue River South Basin - Project Area 4* 

• \$2,248,789 | January 2014 | OCP

I/I Reduction: Blue River Central Basin - Project Area 1

• \$1,050,000 | January 2014 | OCP

**I/I Reduction:** *Blue River Central Basin - Project Area 2* 

• \$1,050,000 | January 2014 | OCP



I/I Reduction: Line Creek/Rock Creek Basin - Project Area 2

• \$1,390,455 | January 2014 | OCP

I/I Reduction: Blue River North Basin

• \$841,601 | January 2014 | OCP



**Sewer Separation:** *Diversion Structure 006* 

• \$746,291 | January 2014 | OCP

**I/I Reduction:** *Blue River South Basin - Project Area 5* 

• \$722,064 | January 2014 | OCP

**I/I Reduction:** *Blue River South Basin - Project Area 3* 

• \$666,281 | January 2014 | OCP



**Buckeye Pump Station Improvements** 

• \$1,600,000 | February 2014 | Pump Station

**Sewer Pipe Consolidation: Outfall 063** 

• \$873,970 | February 2014 | OCP

**High Efficiency Aeration - Westside** 

• \$400,000 | February 2014 | Treatment



#### **High Efficiency Aeration - Birmingham**

• \$400,000 | February 2014 | Treatment

#### **Platte Woods Pump Station Rehab**

• \$300,000 | February 2014 | Pump Station



**Neighborhood Sewer Rehabilitation** Brush Creek - Project Area 1

• \$2,805,000 | March 2014 | OCP

**Neighborhood Sewer Rehabilitation:** *Brush Creek - Project Area 2* 

• \$2,805,000 | March 2014 | OCP





**Sewer Separation Outfall 067** 

• \$3,607,375 | April 2014 | OCP

**Gooseneck Arch Sewer Inline Gate** & Pump Station

• \$1,476,398 | April 2014 | OCP

**Sewer Separation: Diversion Structure 099** 

• \$636,596 | May 2014 | OCP



**Swope Campus Parking Lot & Sustainable Stormwater Improvement Project** 

• \$3,100,000 | February 25, 2014 | Facilities

**Blue River WWTP Clarifier Work** 

• \$3,800,000 | March 2014 | Treatment





**Sludge Holding Lagoons Birmingham** 

• \$1,500,000 | April 2014 | Treatment







• \$4,500,000 | May 2014 | Collection

**Weatherby Lake Sewer Rehabilitation** 

• \$2,000,000 | June 2014 | Collection

**Manhole Rehabilitation Citywide** 

• \$3,000,000 | August 2014 | Collection



**Birmingham Pump Station Improvements** 

• \$900,000 | January 2015 | Pump Station







FISCAL YEAR 2015 Stormwater Infrastructure Projects



#### **Stormwater: FY 15 Construction**

**Blue River Trail** Brush Creek to Stadium Drive

• \$1,500,000 | May 2014 | Waterways

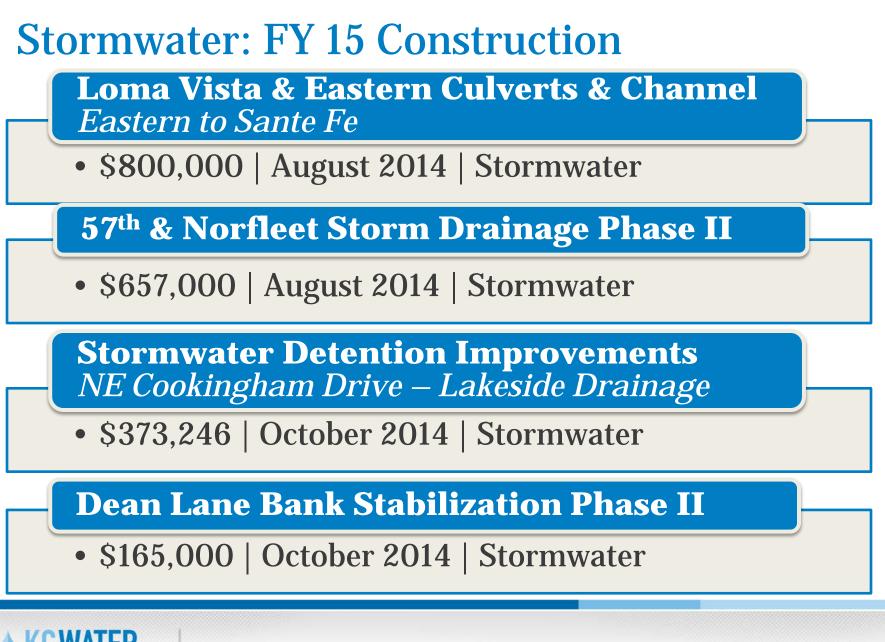
**Blue River Trail** *Swope Park to Brush Creek* 

• \$1,200,000 | May 2014 | Waterways

**Storm Drainage Improvements** 6400 NE 52<sup>nd</sup>

• \$100,000 | June 2014 | Stormwater





#### **Stormwater: FY 15 Construction**



• \$205,000 | January 2015 | Stormwater

**Gardner West Detention Basin** 

• \$576,314 | February 2015 | Stormwater



**U.S.** Army Corps of Engineers

**Turkey Creek Restored Channel Phase III** 

• \$8,500,000 | March 2014 | Construction

**Blue River Channel** *Maintenance Access & Channel Repair* 

• \$3,500,000 | June 2014 | Construction

**Upper Blue River Industrial** *Utility Relocations & Levee Work* 

• \$2,000,000 | July 2014 | Construction





**Turkey Creek MO River Interceptors** 

• \$13,000,000 | September 2014 | Construction

**East Bottoms Levee Unity Improvements** 

• \$3,500,000 | September 2014 | Construction

**Swope Park Industrial** 

• \$2,000,000 | Corps Contract | Design

To Learn More Visit: www.fbo.gov

# **U.S. Army Corps of Engineers Projects:**



www.fbo.gov



# Society of American Military Engineers One-on-One Opportunity:



April 2, 2014 601 E. 12<sup>th</sup> Street www.samekc.org











# Please Join us.



# Networking Reception in the Lobby.

