

# JOHNSON COUNTY KANSAS

## STORMWATER MANAGEMENT PROGRAM

### 2018 PROPOSED EXPENDITURES



*Blue River: north of 191<sup>st</sup> and west of US 69 Hwy*

# Section 1: Expenditures Summary

# SECTION 1: 2018 EXPENDITURES SUMMARY

2018 Estimated Revenue	\$	15,187,000
Previous years' unspent funds	\$	2,440,000
<b>Total Funds Available*</b>	<b>\$</b>	<b>17,627,000</b>
* \$750,000 Operating Reserves Withheld		
		% of budget
<b>ADMINISTRATIVE SERVICES**</b>		<b>\$ 600,571 3%</b>
Personnel Services (2.8 FTEs)	\$ 337,356	
County Support Services	\$ 239,215	
Operating Expenses	\$ 24,000	
**These are rounded amounts from the County's 2017 budget document		
<b>SMP REGIONAL &amp; SUPPORT PROJECTS</b>		
<b>NPDES PHASE II SERVICES</b>		<b>\$ 510,000 3%</b>
MCM 1: Public Education and Outreach	\$ 200,000	
MCM 2: Public Participation and Involvement	\$ 150,000	
MCM 3: Illicit Discharge Detection and Elimination	\$ 100,000	
TMDL Storm Event Monitoring	\$ 30,000	
General NPDES Phase II Support	\$ 30,000	
<b>SUPPORT PROJECTS</b>		<b>\$ 1,725,000 10%</b>
Engineering Support	\$ 500,000	
Studies (including PES)	\$ 500,000	
Regional and R&D Projects	\$ 300,000	
Stormwatch System Maintenance	\$ 325,000	
USGS Streamflow Gauges	\$ 100,000	
<b>ADMINISTRATIVE SERVICES</b>	<b>\$ 600,571</b>	<b>3%</b>
<b>REGIONAL &amp; SUPPORT PROJECTS</b>	<b>\$ 2,235,000</b>	<b>13%</b>
<b>DESIGN &amp; CONSTRUCTION PROJECTS</b>	<b>\$ 14,783,518</b>	<b>84%</b>
<b>Total Budgeted Expenditures</b>	<b>\$ 17,619,089</b>	<b>100.0%</b>

**2018 Un-obligated Fund Balance \$**

**7,911**

## **Section 2: Capital Projects List**

## SECTION 2: CAPITAL PROJECTS LIST

Cost Benefit Rating	City	Project Number			Location	Benefit	Rating	Estimated Project Cost	City Share (25%)	SMP Share (75%)	Contingency*	TOTAL PROJECT AUTHORIZATION
		TC	21	070								
(a)	Shawnee	TC	21	070	6200 Block of Nieman Culverts	185		\$ 1,129,180	\$ 282,295	\$ 846,885	\$ 207,351	\$ 1,054,236
1,637	Leawood (b)	TM	04	008	Leawood South Subdivision Stormwater Improvements	460		\$ 3,614,688	\$ 903,672	\$ 2,711,016	\$ 207,352	\$ 2,918,368
6,480	Overland Park	IC	10	069	89th & Craig Stormwater Improvements	250		\$ 1,620,000	\$ 405,000	\$ 1,215,000	\$ 121,500	\$ 1,336,500
9,626	Prairie Village	DB	11	014	84th & Reinhardt Stormwater Improvements	240		\$ 2,310,140	\$ 577,535	\$ 1,732,605	\$ 173,261	\$ 1,905,866
10,540	Leawood	TM	04	007	Waterford Subdivision Stormwater Improvements	210		\$ 2,213,425	\$ 553,356	\$ 1,660,069	\$ 166,007	\$ 1,826,076
11,630	Olathe (C)	CC	09	018	Little Cedar Creek, Elm St. to Cedar St.	300		\$ 198,000	\$ 49,500	\$ 148,500	\$ 75,000	\$ 223,500
11,903	Olathe (C)	MC	09	028	Stevenson St. - E Oak St to Grace Ter Stormwater Improvements	210		\$ 315,000	\$ 78,750	\$ 236,250	\$ 75,000	\$ 311,250
12,756	Gardner	KC	18	044	Sante Fe Street & Waverly Rd Stormwater Improvements	135		\$ 1,722,100	\$ 430,525	\$ 1,291,575	\$ 129,158	\$ 1,420,733
12,863	Olathe (C)	CC	09	019	South Keeler Flood Area	140		\$ 250,000	\$ 62,500	\$ 187,500	\$ 75,000	\$ 262,500
17,088	Prairie Village	DB	11	015	Delmar/Fontana Low Water Crossing Removal and Stormwater Improvements	250		\$ 4,272,110	\$ 1,068,028	\$ 3,204,083	\$ 320,408	\$ 3,524,491
<b>Totals</b>						<b>2,195</b>		<b>\$ 17,644,643</b>	<b>\$ 4,411,161</b>	<b>\$ 13,233,482</b>	<b>\$ 1,550,036</b>	<b>\$ 14,783,518</b>

(a) This is a special request for additional funding from a 2017 Project.

(b) This is a continuation project from 2017. Per SMP Administrative Procedures, the project must be funded by the city in 2018.

(c) Cities have requested funding for design only in 2017. These projects will become continuation projects and be placed at the top to the list of projects to be funded in 2018.

\* Per Program Policy: SMP can fund contingencies up to \$100,000 total project cost, or 10% of the total project cost, whichever is greater.



Rock Creek at Mission Road SMP Project RC-03-020



Wolf Creek at Lackman SMP Project BR-01-006

## **Section 3: Regional and Support Projects**

## SECTION 3: REGIONAL AND SUPPORT PROJECTS

### NPDES Phase II Services

**\$510,000**

Unincorporated Johnson County and 17 municipalities are permitted by the Kansas Department of Health and Environment under the NPDES Phase II program. The permit requires these entities to implement stormwater management programs to reduce pollutant discharges, protect water quality, and satisfy applicable water quality regulations. Upon the recommendation of SMAC, the SMP has developed the projects below in order to satisfy the following permit requirements:

#### **Minimum Control Measure 1: Public Education and Outreach**

Distribute educational materials to the community or conduct equivalent outreach activities which address the impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff.



Anticipated Projects Include:

Public Education Services*	\$	75,000
K-State Extension Partnership	\$	50,000
MARC Water Quality Education	\$	45,000
JCCD Hillsdale WRAPS	\$	10,000
Mini-Grant Program	\$	20,000
<b>Total</b>	<b>\$</b>	<b>200,000</b>

\*Services provided through contracts with water quality education professionals.



#### **Minimum Control Measure 2: Public Participation and Involvement**

Provide opportunities for public to play an active role in both the development and implementation of program.

Anticipated Projects Include:

BMP Cost Share Program	\$	100,000
Public Engagement Services*	\$	50,000
<b>Total</b>	<b>\$</b>	<b>150,000</b>

\*Services provided through contracts with public engagement professionals.

#### **Minimum Control Measure 3: Illicit Discharge Detection and Elimination**

Assist cities with implementation of their programs to detect and eliminate illicit discharges into the MS4.

<b>HHW Grant Program</b>	<b>\$</b>	<b>100,000</b>
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## SECTION 3: REGIONAL AND SUPPORT PROJECTS (CONT.)

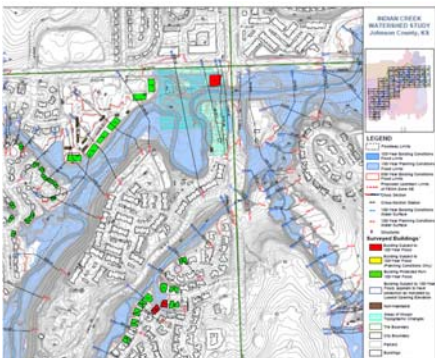
**TMDL Storm Event Monitoring: \$30,000** On-going wet weather monitoring program for the Municipal Separate Storm Sewer System to assess the effectiveness of BMP control measures implemented by the municipalities under their programs.



**General NPDES Phase II Support: \$30,000.** These funds may be used for additional water quality education/outreach opportunities that may arise throughout the year with an emphasis on television, internet, and social media forms of communication. These funds may also be used to provide training opportunities for county/municipal staff, contractors, and developers. Past training have included workshops on erosion and sediment control requirements, and BMP installation and maintenance.

### **Engineering Support**

**\$500,000**



The SMP utilizes a term and supply contract as an instrument to expand the skill sets, expertise and capabilities of the Program and the Stormwater Management Advisory Council without the addition of FTE's. Funds may also be used for assistance with implementation of the strategies/tactics/and actions set forth in the 2016 Strategic Plan. Multiple firms are selected in order to provide flexibility and options for stormwater management.

The SMP entered into 1-year agreements with the nine firms shown below in April 2017 with the option to renew up to three additional years.

- Affinis Corp / Vireo
- Alfred Benesch & Company
- Black & Veatch / Satelytics / Vireo
- Burns & McDonnell / OptiRTC
- Olsson Associates / Wright Water Engineers
- CDM Smith Inc.
- George Butler Associates, Inc.
- HDR Engineering Inc.
- TREKK Design Group, LLC



## SECTION 3: REGIONAL AND SUPPORT PROJECTS (CONT.)

### Studies

**\$500,000**

#### **Preliminary Engineering Studies: \$150,000**

The Stormwater Management Program will continue to fund city initiated preliminary engineering studies (PES) until watershed based Capital Improvement Plans are in place. The Program funds 75% of the cost of the PES and the City funds the remaining 25%.

#### **Countywide or Watershed Level Study: \$350,000**

Provide the programs share of a yet to be identified countywide or watershed level study(s).

### Regional and R&D Projects

**\$300,000**

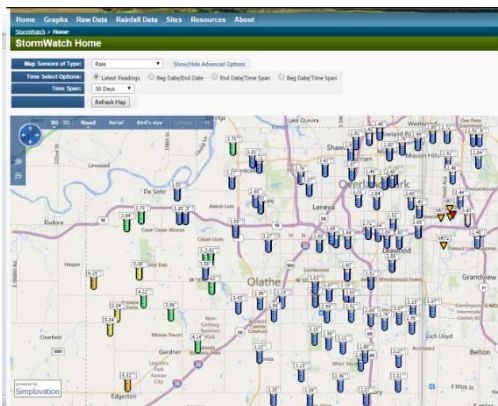
Provide the Program share for a yet to be identified regional project(s) or research and development project(s) and/or equipment.



### Stormwatch System Maintenance

**\$325,000**

This funding is for the continued operation and maintenance of the countywide rain and stream gauging system and the associated flood warning system. Funds will be used for system maintenance, enhancements, hardware and software upgrades, and national weather service radar subscription. Services are provided through a contract with the city of Overland Park. These gauges can be used to alert the public and authorities of potential road overtopping during flood events. The gauges also provide the public with real-time and historic rainfall and stage data. The Flood Warning system offers a solution to protect the public during flooding events when traditional engineering solutions are not feasible or cost-effective. Data from these gauges can be accessed via the internet at [www.stormwatch.com](http://www.stormwatch.com).



## SECTION 3: REGIONAL AND SUPPORT PROJECTS (CONT.)

### USGS Stream Flow Gauges

\$100,000

This funding is for the continued operation and maintenance of 7 continuous stream flow gauges in Johnson County. Services are provided by the US Geological Survey. Long-term continuous stream flow data is extremely valuable to the citizens of Johnson County. Examples of how data can be used includes; 1) calibrating floodplain and water quality models, 2) flood forecasting, 3) inundation mapping, 4) assessing changes in watersheds as development occurs, 5) monitoring environmental conditions, and 6) public education and outreach. Data from these gauges can be viewed at <http://waterdata.usgs.gov/ks/nwis/rt>



## **Section 4: Projects Yet to Be Funded**

## SECTION 4:

# 2019 DRAFT LIST OF PROJECTS ELIGIBLE FOR FUTURE FUNDING

Rank	PES Date	Cost Benefit Rating	City	Project Number			Location	Benefit Rating	Estimated Project Cost	City Share	SMP Share	Contingency	TOTAL PROJECT AUTHORIZATION
1	2015	11,630	Olathe (a)	CC	09	018	Little Cedar Creek, Elm St. to Cedar St.	300	\$ 3,291,100	\$ 822,775	\$ 2,468,325	\$ 186,683	\$ 2,655,008
1	2017	11,903	Olathe (a)	MC	09	028	Stevenson St. - E Oak St to Grace Ter Stormwater Improvements	210	\$ 2,184,530	\$ 546,133	\$ 1,638,398	\$ 112,465	\$ 1,750,863
1	2015	12,863	Olathe (a)	CC	09	019	South Keeler Flood Area	140	\$ 1,550,750	\$ 387,688	\$ 1,163,063	\$ 60,056	\$ 1,223,119
2	2007	6,495	Overland Park	IC	10	061	95th Street to 97th Street, East of Riley	495	\$ 3,215,000	\$ 803,750	\$ 2,411,250	\$ 241,125	\$ 2,652,375
3	2006	7,759	Overland Park	IC	10	059	99th Street to 101st Street, West of Metcalf	220	\$ 1,707,000	\$ 426,750	\$ 1,280,250	\$ 128,025	\$ 1,408,275
4	2013	8,025	Merriam	TC	20	037	Campbell Creek - Knox Ave. to Campbell Lane	130	\$ 1,043,300	\$ 260,825	\$ 782,475	\$ 78,248	\$ 860,723
5	2017	11,750	Unincorporated	KC	01	005	New Century Parkway Stormwater Improvements in the Vicinity of Pra	105	\$ 1,233,728	\$ 308,432	\$ 925,296	\$ 92,530	\$ 1,017,826
6	2011	13,262	Merriam	TC	20	034	Hocker Street, between Farley St. and Knox Ave.	170	\$ 2,254,500	\$ 563,625	\$ 1,690,875	\$ 169,088	\$ 1,859,963
7	2016	16,030	Overland Park	IC	10	070	86th & Lamar Stormwater Improvements	270	\$ 4,328,124	\$ 1,082,031	\$ 3,246,093	\$ 324,609	\$ 3,570,702
8	2007	18,964	Overland Park	IC	10	060	97th Street to 99th Street, West of Metcalf	193	\$ 3,660,000	\$ 915,000	\$ 2,745,000	\$ 274,500	\$ 3,019,500
9	2017	30,771	Olathe	MC	09	020	South Ferrell Dr & West Virginia Ln Stormwater Improvements	210	\$ 6,461,940	\$ 1,615,485	\$ 4,846,455	\$ 484,646	\$ 5,331,101
10	2000	32,383	Overland Park	TM	10	007	122nd Terrace and Roe Stormwater Improvements	160	\$ 5,181,300	\$ 1,295,325	\$ 3,885,975	\$ 388,598	\$ 4,274,573
11	2011	32,572	Merriam	TC	20	033	South Quaker Creek, Slater & Hemlock Street	190	\$ 6,188,600	\$ 1,547,150	\$ 4,641,450	\$ 464,145	\$ 5,105,595
12	2017	33,245	Mission	RC	06	022	Rock Creek Channel Improvements from Nall to Roeland Drive	115	\$ 3,823,200	\$ 955,800	\$ 2,867,400	\$ 286,740	\$ 3,154,140
<b>Totals</b>								<b>2,908</b>	<b>46,123,072</b>	<b>11,530,768</b>	<b>34,592,304</b>	<b>3,291,456</b>	<b>37,883,760</b>

(a) This is a continuation project from 2018. Per SMP Administrative Procedures, the project must be funded by the city in 2019.

6/15/2017

**\*New PES's will be accepted through December 31, 2018**