

# Putting Them To Work! How To Engage Your Stormwater Stakeholder Advisory Committee

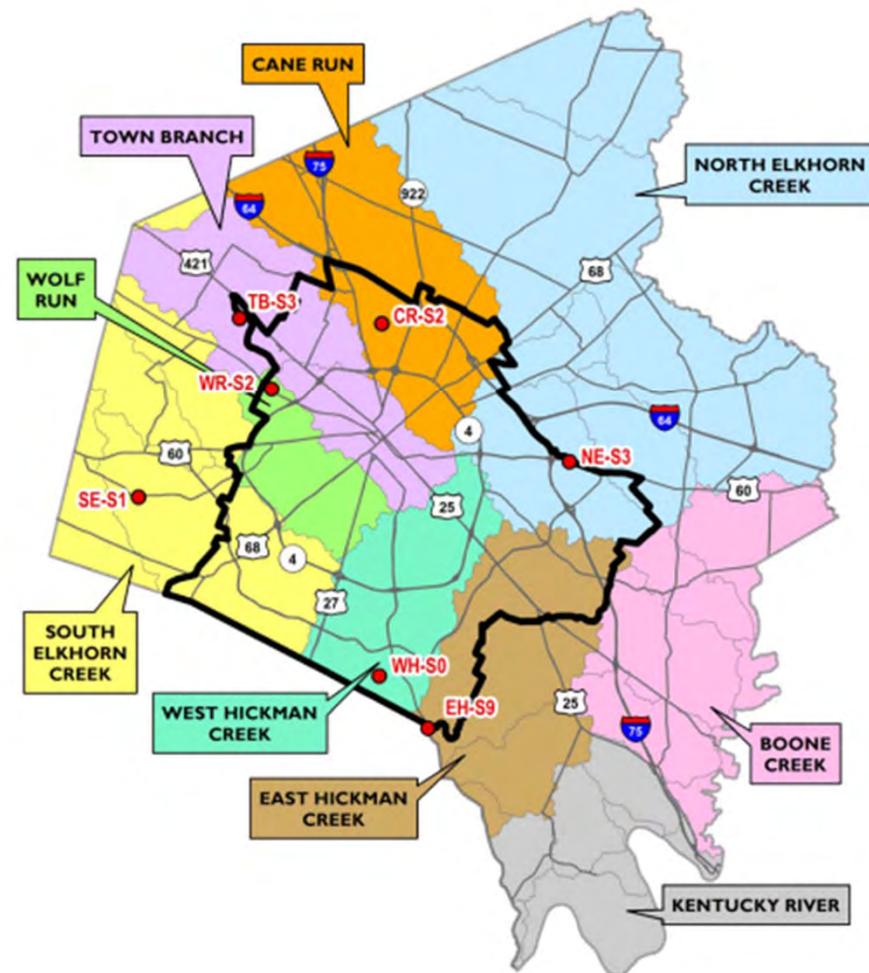
*October 13, 2017*



**LEXINGTON**

# A Bit About Lexington

- USA / RSA
- Sits on a hill / no major river
- Population > 310,000



# Lexington's MS4 Permit

## *Public Involvement and Participation Program Element*

PI-1: Central Reporting = LexCall (311)

PI-2: Support Civic Groups

PI-3: Facilitate Volunteer Opportunities

PI-4: Storm Drain Marking Program

PI-5: Public Notification of Major Program Changes

PI-6: Stakeholder Advisory Committee

# Forming the SSAC

*2010: First Things First*

- **Determine SSAC Role**
- **Identify Stakeholders**
  - LFUCG
  - Interest Groups
  - Other Public Agencies
  - Business Community
  - Watershed At-Large  
Representatives



# Forming the SSAC

*Determine Committee's Standing and Structure*

Consulted LFUCG's Department of Law

Law's Recommendations:

- The SSAC serve in an advisory capacity only
- The SSAC meetings be conducted in an open manner

# Convening the SSAC

## *Mission Statement Development*

*(endorsed 12/10/10; revised 9/2/11)*

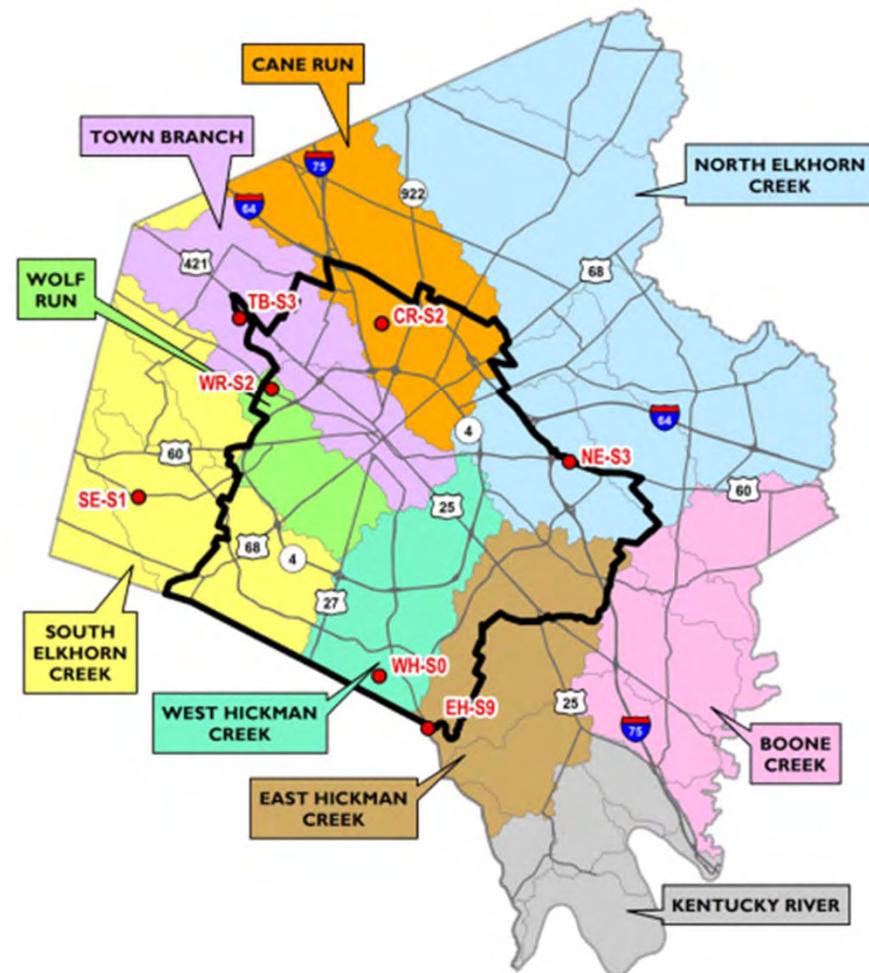
The Stormwater Stakeholder Advisory Committee is a group of citizens representing a varied group of stakeholders in Fayette County whose mission is to assist LFUCG with attaining the goals of its stormwater program by:

- a) providing technical and value-based input on stormwater issues,
- b) serving as a sounding board to LFUCG DWQ staff on matters relating to the stormwater program and policies,
- c) collaborating and networking together on stormwater-related topics that affect the broader community, and
- d) serving as liaisons within our areas of influence for LFUCG's stormwater program.

# Expanding the SSAC

## Watershed At-Large Representatives:

- Live or own property
- 3-year term



# Engaging the SSAC

*Putting Them To Work!*

- MS4 Permit renewal application
- Stormwater Quality Management Program update
- Stormwater Manual update
- Stream restoration projects inventory development
- Watershed-Focused Monitoring Program development
- Conducting WFMP sampling
- TMDL Implementation Strategy for Pathogens development

# Engaging the SSAC

## *MS4 Permit Application Process – 2013 to 2014*

KDOW suggested that LFUCG propose changes to its SWQMP as part of its permit application

Measurable Goal Workgroup Meetings were arranged by Program Element

7 meetings from Late October to Thanksgiving in 2013 (PE/PI were combined)

Approximately 2 hours per meeting – scheduled by Doodle polls

Asked that members:

*Come prepared:* review current permit, SWQMP, MSD's permit (8.1.11), Phase II permit (4.1.10)

*Keep in mind:* clear, specific, measurable, enforceable, MEP, funding/budgets

# Engaging the SSAC

*MS4 Permit Application Process – 2013 to 2014*

23 participants (11 SSAC Members and 12 staff)

Average # of attendees per workgroup = 7

(Lowest # of attendees = 4, Highest # of attendees = 9)

Workgroups culminated in a document detailing 108 comments and ideas

31 of the ideas were included in the permit application letter

# Engaging the SSAC

## *SWQMP Update*

SWQMP Update Meetings were arranged by Program Element

10 meetings from September 2015 to May 2016

Introductory Meeting

1 Meeting per Program Element (except for Reporting & Recordkeeping)

TMDLs & Impaired Waters Meeting

Approximately 2 hours per meeting – Doodle polls

23 participants (9 from SSAC / non-LFUCG)



# Engaging the SSAC

## *Stormwater Manual Update*

25 stakeholders comprised of:

- Staff from *Planning, DOE, DWQ, & DES*
- *Home Builders Association of Lexington*
- *Commerce Lexington*
- Engineering Firms
- *Stormwater Stakeholder Advisory Committee*

Group met five times from September 2015 to March 2016

Updated manual published October 1, 2016

# Engaging the SSAC

## *Stormwater Manual Update*

Stakeholder Input Was Instrumental and Essential

- Increased Stream Buffer Width from 25 feet to 50 feet
- Incorporated Green Infrastructure Requirements
- Inspections on Commercial Sites
- Manufactured Devices
  - NJDEP Design Standards

Stormwater Management Manufactured Treatment Devices Certified by NJDEP	MTD Laboratory Test Certifications	Field Test Certifications	Superseded Certifications	Certified TSS Removal Rate	Maintenance Plan
AquaFilter Filtration Chamber by AquaShield, Inc.		Certification	Superseded	80%	Plan
Aqua-Swirl Concentrator By Aqua-Shield. Inc.		Certification	Superseded	50%	Plan
Continuous Deflective Separator (CDS) Unit by CONTECH Stormwater Solutions, Inc.	Certification	Certification	Superseded	50%	Plan
Downstream Defender by Hydro International, Inc.	Certification		Superseded	50%	Plan
Dual Vortex Separator by Oldcastle Stormwater Solutions	Certificaton			50%	Plan

# Engaging the SSAC

## *Stream Restoration Projects Inventory*

Two meetings held in 2016

1. What would qualify a project to be put on the inventory?
2. Approved the data table and brainstormed information resources



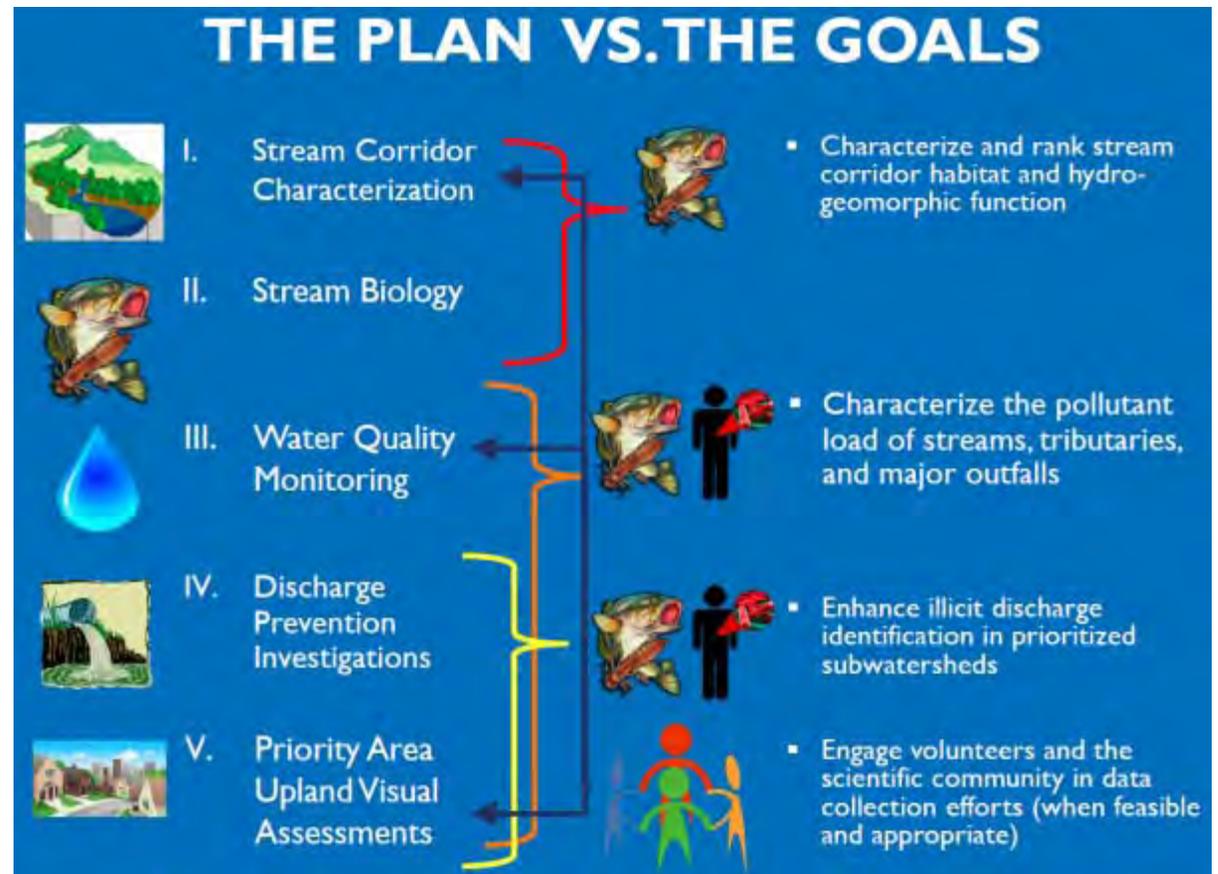
# Engaging the SSAC

## *Watershed-Focused Monitoring Program Development*

Two meetings

1. October 2015

2. November 2015



# Engaging the SSAC

## *Watershed-Focused Monitoring Program Sampling*

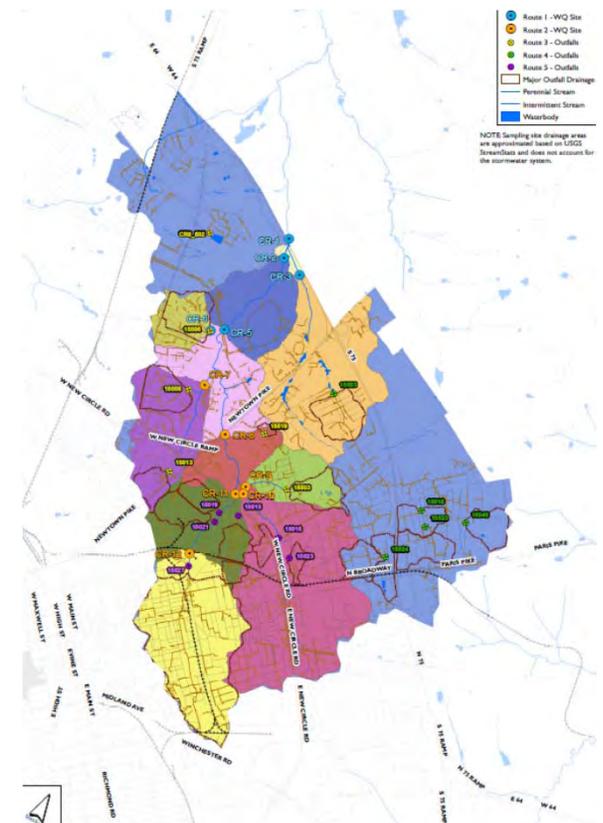
Cane Run Watershed:

Two Phase 1 Screening Trainings in August 2016 (33)

Two Phase 1 Screenings – September 2016 (15) &  
October 2016 (19)

One Phase 2 Screening Training in May 2017 (5 new)

Ten Phase 2 Screenings –  
May to September 2017 (avg. 15)



# Engaging the SSAC

## *Watershed-Focused Monitoring Program Sampling*

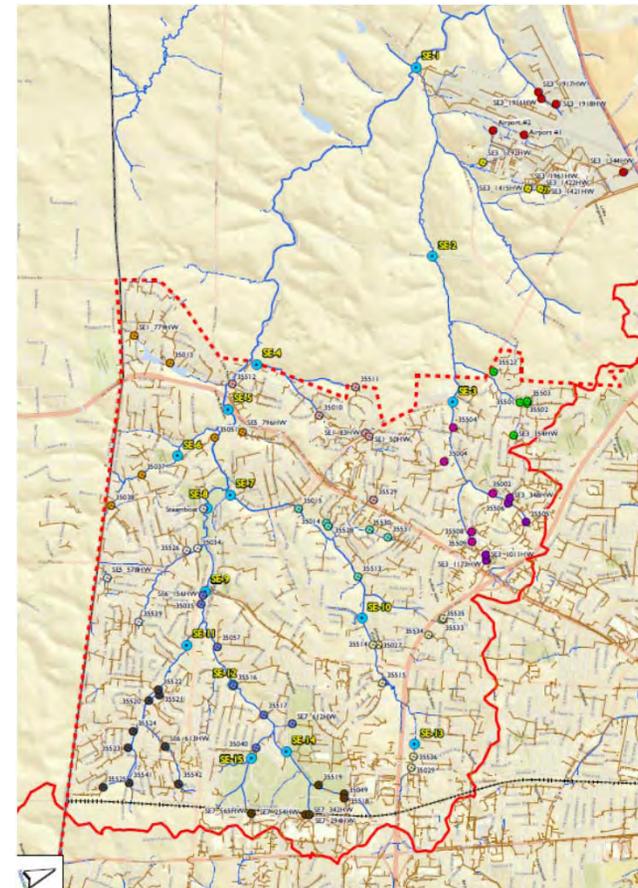
South Elkhorn Watershed:

Two Phase 1 Screening Trainings

in August 2017 (14 new)

Two Phase 1 Screenings –

September (23) & October 2017 (11 + ?)



# Engaging the SSAC

*Watershed-Focused Monitoring Program Sampling*



# Engaging the SSAC

*Watershed-Focused Monitoring Program Sampling*



# Engaging the SSAC

*Watershed-Focused Monitoring Program Sampling*



# Engaging the SSAC

*Watershed-Focused Monitoring Program Sampling*

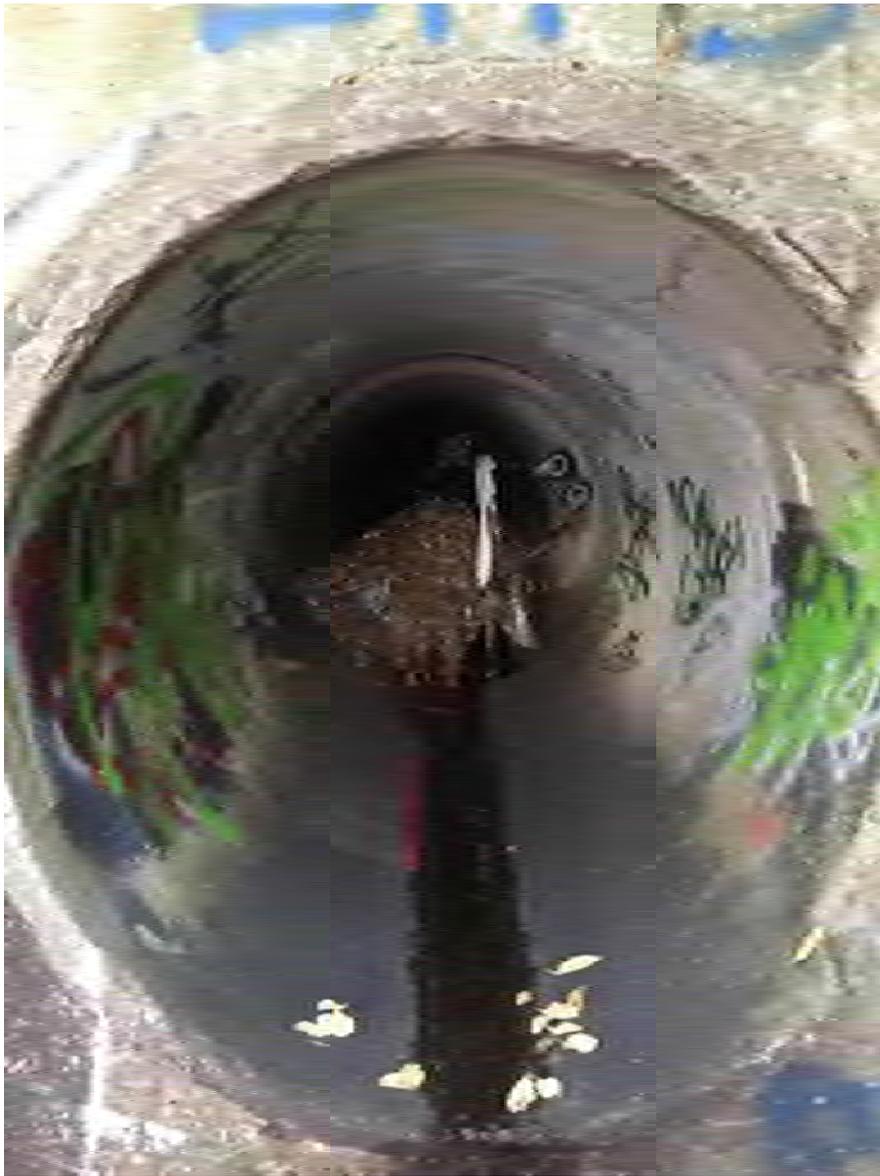


# Engaging the SSAC

*Watershed-Focused Monitoring Program Sampling*







# Engaging the SSAC

## *TMDL Implementation Strategy for Pathogens*

Approved Pathogen TMDLs for

Cane Run

North Elkhorn

South Elkhorn

Town Branch

Wolf Run

Lexington-Fayette Urban County Government  
 MS4 Program  
 Stormwater Stakeholder Advisory Committee

### Informal Survey Regarding Bacteria Sources to Our Creeks & Streams

The table below lists bacteria sources in Fayette County. LFUCG is required to address these sources to comply with its KDDW-issued stormwater discharge permit. Please fill out the two columns on the right, using your best judgment.

- For the middle column, please provide your estimates on the relative contributions of the various bacteria sources to Fayette County's waterways. You may have different allocations than at the beginning of today's meeting.
- In the column on the right, please indicate the percentage of available LFUCG resources you think should go towards addressing the various bacteria sources.

For both columns, the percentages you enter should add up to 100%. Please check your math! Thanks.

Sources of Bacteria to Fayette County's Creeks and Streams	Relative % Contribution of Source	% of Available Resources to Allocate to Address Source*
<b>Human Sources</b>		
Sanitary Sewer System		
Private Sanitary Sewer Lateral Lines		
Septic Systems / Package Plants / Other Human Waste		
<b>Animal Sources</b>		
Domestic Pets		
Urban Waterfowl		
Other Urban Wildlife (e.g., feral cats, raccoons)		
Livestock		
<b>Environmental / Other Sources</b>		
Litter and Dumpsters		
Stream Bed Sediments / Pipe Slimes / Biofilms		
<b>Totals</b>	<b>100%</b>	<b>100%</b>

\*Exclude resources already planned to complete the ~\$590M Remedial Measures Plan projects pertaining to the Sanitary Sewer System.

# Engaging the SSAC

## TMDL Implementation Strategy for Pathogens

Lexington-Fayette Urban County Government  
 MS4 Program  
 Stormwater Stakeholder Advisory Committee

### Informal Survey Regarding Bacteria Reduction Strategies

The table below lists strategies and actions to address bacteria sources in Fayette County. LFUCG is required to address these sources to comply with its KDOW-issued stormwater discharge permit. The survey table is designed to capture your priorities within each of the three bacteria source categories listed: *Private Sewer Lateral Lines*, *Wastewater Treatment Package Plants*, and *Septic Systems*. The table also lists the relative costs associated with each strategy / action, using dollar signs as general indicators of annual costs to the LFUCG Division of Water Quality. The more dollar signs, the greater the relative cost – see the asterisk note regarding cost information below the table.

Please rank the strategies in each of the categories in numerical order, starting with "1" for your top preference in each of the three categories. List your second, third, etc. priorities by numbering them consecutively. Note that the survey continues on the back of this page. Thanks.

TMDL Strategies / Actions	Relative Cost*	Your Priority Ranking
<i>Private Sewer Lateral Lines: Rank Your Priorities from 1 to 5</i>		
A. Review and update smoke testing, LexCall, other high-risk lateral line targeting databases	\$	
B. Identify priority areas for possible demonstration project sites	\$	
C. Implement demonstration lateral line replacement projects in high priority areas	\$\$\$	
D. Develop an incentive program to cost-share lateral line replacements	\$\$	
E. Propose an LFUCG ordinance requiring verification of lateral line integrity (e.g., at the time of property sale)	\$	
<i>Wastewater Treatment Package Plants: Rank Your Priorities from 1 to 3</i>		
A. Develop an approach for the SSAC and citizen groups to review package plant Discharge Monitoring Reports (DMRs)	\$	
B. Create a venue for the SSAC and citizen groups to encourage KDOW compliance and enforcement action when package plant discharges violate KPDES permits	\$	
C. Identify opportunities to provide non-financial support to package plant service areas seeking connection to public sewer systems	\$	

TMDL Strategies / Actions	Relative Cost*	Your Priority Ranking
<i>Septic Systems: Rank Your Priorities from 1 to 8</i>		
A. Update the unsewered (i.e., septic system served) parcel maps and lists using DWQ and LFCHD data	\$	
B. Update and formalize the relationship between DWQ and LFCHD (identify DWQ tap-on, parcel check, and illicit discharge contacts for LFCHD)	\$	
C. Provide support from DWQ for LFCHD-sponsored system owner education (brochures, mailings, etc.)	\$	
D. Propose an LFUCG ordinance requiring periodic or time-of-sale septic system inspections	\$	
E. Provide DWQ support for LFCHD periodic or time-of-sale voluntary septic system inspections	\$	
F. Provide targeted information to the real estate industry and home lenders on septic system disclosure, etc.	\$	
G. Target groups of septic systems for tap-on when doing nearby sewer infrastructure work	\$\$	
H. Research options for financial assistance programs for low income property owner tap-ons	\$	

\*Key to "Relative Cost" column: \$ = less than \$100k per year; \$\$ = \$100k to 500k per year; and \$\$\$ = greater than \$500k per year. (Note that these are rough estimates.)

Name / Organization (Optional): \_\_\_\_\_

*If you wish, please provide relevant comments or suggestions below. Thank you.*

---

---

---

---

---

---

---

---

---

---

# Engaging the SSAC

## TMDL Implementation Strategy for Pathogens

Lexington-Fayette Urban County Government  
 MS4 Program  
 Stormwater Stakeholder Advisory Committee

### Informal Survey Regarding Bacteria Reduction Strategies

The table below lists strategies and actions to address bacteria sources in Fayette County. LFUCG is required to address these sources to comply with its KDOH-issued stormwater discharge permit. The survey table is designed to capture your priorities within each of the four bacteria source categories listed: *Domestic Pets*, *Urban Waterfowl*, *Other Urban Wildlife*, and *Livestock*. The table also lists the relative costs associated with each strategy / action, using dollar signs as general indicators of annual costs to the LFUCG. The more dollar signs, the greater the relative cost – see the asterisk note regarding cost information below the table.

Please rank the strategies in each of the categories in numerical order, starting with “1” for your top preference in each of the four categories. List your second, third, etc. priorities by numbering them consecutively. Note that the survey continues on the back of this page. Thanks.

TMDL Strategies / Actions	Relative Cost*	Your Priority Ranking
<i>Domestic Pets: Rank Your Priorities from 1 to 6</i>		
A. Conduct surveys to better understand pet ownership patterns and pet owner waste practices at home and on walks.	\$	
B. Perform targeted observations to identify heavy pet use areas, waste pick-up practices, and the presence of signage and disposal facilities.	\$	
C. Identify, characterize, and address outdoor pet facilities (e.g., kennels, groomers, vet clinics) with possible waste management challenges.	\$	
D. Identify popular dog walk routes near ditches, channels, and streams for potential installation of vegetated buffer areas.	\$	
E. Continue the current level of pet waste pickup education and outreach efforts.	\$	
F. Significantly increase pet waste pickup education and outreach efforts (e.g., promotional campaigns, signs, waste containers, ordinance enforcement publicity, etc.).	\$\$	
<i>Urban Waterfowl: Rank Your Priorities from 1 to 4</i>		
A. Develop and implement a targeted education, outreach, and training program for homeowner associations and pond managers on measures to deter resident waterfowl populations at ponds.	\$	
B. Implement and evaluate waterfowl deterrent measures at selected ponds, such as habitat alteration, no-feeding signage, noisemakers, string/wire grids, sprinklers, use of trained dogs, etc.	\$\$	
C. Support goose removal operations at targeted ponds with agreeable owners.	\$\$	
D. Support a program to target and treat goose nests and eggs to reduce goose reproduction rates.	\$	

TMDL Strategies / Actions	Relative Cost*	Your Priority Ranking
<i>Other Urban Wildlife: Rank Your Priorities from 1 to 5</i>		
A. Identify bridges currently housing bird roosts / nests for retrofitting with wire, nets, spikes, and other deterrent measures.	\$	
B. Implement a program to promote redirection of roof downspouts to vegetated areas, to minimize bird droppings and animal scat from entering the storm drainage system.	\$\$	
C. Review existing waste and dumpster ordinances to identify and address any shortcomings regarding nuisance animal issues (e.g., covers for food waste dumpsters in Section 16-4.1(d)).	\$	
D. Increase compliance with and enforcement of dumpster and trash management ordinances to deter rats, raccoons, and other animals.	\$	
E. Identify and address priority problem areas where animals are accessing and/or dwelling in stormwater pipes and ditches.	\$	
<i>Livestock: Rank Your Priorities from 1 to 3</i>		
A. Partner with recognized agricultural agencies and organizations to identify and address farm-based livestock bacteria “hot spots” in or near urban areas.	\$\$	
B. Evaluate the development and implementation of an incentive grant program that targets livestock bacteria “hot spot” areas.	\$\$\$	
C. Identify, characterize, and address animal facilities with possible waste management challenges in or near urban areas, such as large animal vet clinics, horse farms, stables, urban livestock (e.g., chickens), etc.	\$	

\*Key to “Relative Cost” column: \$ = less than \$75k per year; \$\$ = \$75k to 250k per year; and \$\$\$ = greater than \$250k dollars per year. (Note that these are rough estimates.)

Name / Organization (Optional): \_\_\_\_\_

If you wish, please provide relevant comments or suggestions below. Thank you.

---



---



---



---



---



---



---



---

“These meetings continue to be a most unique exchange of viewpoints and ideas.

In spite of a few setbacks (from our perspective) in policy advancement, there is a lot to be encouraged about with Lexington’s Stormwater Program.

1. At the core, the advancements in quality and quantity of staff,
2. The detailed planning and organization you bring to the program,
3. The inclusive, participatory and open way ... the LFUCG stormwater team goes about developing policy and operational procedures.

Your work in this area should be held up as a model of public participation and involvement in stormwater management. Thank you for taking the time to do this right.”



*Stakeholders discuss methods to improve water quality in the Wolf Run Watershed at a Stormwater Stakeholder Advisory Committee meeting in 2015.*

# FOR MORE INFORMATION

*[www.lexingtonky.gov](http://www.lexingtonky.gov)*

Jennifer M. Carey, P.E.

MS4 / Water Quality Section Manager

[jcarey@lexingtonky.gov](mailto:jcarey@lexingtonky.gov)



# Forming the SSAC

## *Identify Stakeholders*

### **Interest Groups Representation:**

- **Fayette County Neighborhood Council**
- Fayette Alliance
- Friends of Wolf Run
- Friends of Cane Run
- Friends of McConnell Springs
- Bluegrass PRIDE (now Bluegrass Greensource)

# Forming the SSAC

## *Identify Stakeholders*

### **Other Public Agency Representation:**

- Fayette County Public Schools
- [University of Kentucky](#)
- Kentucky Water Resources Research Institute
- Kentucky American Water Company
- [Kentucky Transportation Cabinet District 7 \(which includes Fayette County\)](#)
- [Federal Facilities \(Veterans Hospital\)](#)

# Forming the SSAC

## *Identify Stakeholders*

### **Business Community Representation:**

- Lexington-Bluegrass Association of Realtors
- Homebuilders Association of Lexington
- Commerce Lexington (6 representatives)
  - Developer
  - Contractor
  - Small Business Owner
  - Large Business Owner
  - Major Institution
  - Industry