

# Pre-Conference Workshop

## Introduction for New MS4 Coordinators and Elected Officials

Kentucky Stormwater Association  
Annual Conference, June 2019



Chad McCormick, PE, CFM

Jennifer Herrell, PE, CFM



# Overall Agenda

- 1 – Introduction
- 2 – Program Finance  
Planning in Uncertain Times
- 3 – Annual Reports Avoiding  
the Rush
- 4 – Program Audit  
Preparedness  
**(EPA IN KY IN 2020)**



Pre-Conference Workshop

Part 1 - Introduction



# Purpose

Read The MS4 Permit For You

Bore You With MS4 Permit  
Language

Write Your SWQMP

KSA



Give You The “trick” To Do It  
All for Free



# Purpose

Make the MS4 Permit  
Easier to Understand

Point You Toward Important  
Issues



Introduce You to  
People and Resources

# A Brief History of Shelbyville MS4

- Invited to program 2003 - Shelbyville did not take an aggressive approach.
  - Slow to adopt ordinances, storm sewer mapping -
    - EPSC – 2007, revised 2012
    - IDDE & Post Construction – 2009
- Notice of Violation issued 2008 & 2011 – City responded
  - 2009 – created position - City Engineer/Director of Public Works / MS4 Coordinator
  - 2013 – created position – GIS/Engineering Technician
  - Computer documentation, GIS mapping of storm sewers
  - 2013 - Created Stormwater Manual
  - 2016 - Created Stormwater Drainage, Flood Protection and Quality Master Plan

# What We DIDN'T Do...

- Elected Official Education
- Community Outreach
- Develop the Community's understanding of "Why"
- Put enforcement mechanisms in place
- Establish the resources needed

# Part 1 - Objectives

- Offer a Frame of Mind
- Review History
- Define Basic Terminology
- Introduce 6 MCMs
- Introduce the “other required stuff”



# Ways to Look at “What is MS4”?

- ... my ticket to a lost election
- ... “enviro nuts” are taking over the world
- ... a stick to go after “evil developers”
- ... finally a beautiful community
- ... an unfunded mandate
- ... a jobs killer ... maker ... saver
- ... a way to pay for new fire truck
- ... a five year thing that I can wait out
- ... something else to pass onto the PWD



# Other Ways to Look at “What is MS4”?

A mandate that:

- Won't go away
- Is semi-flexible
- Is unfunded
- Will require some thought, communication, cooperation and effort
- Can benefit our communities



# Acknowledge Certainties

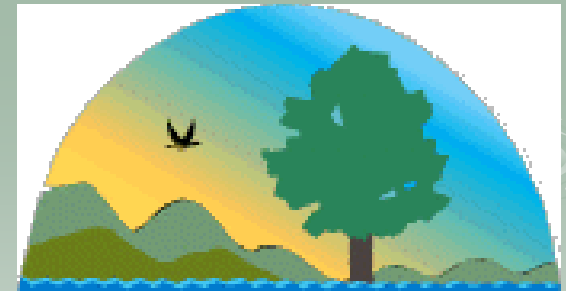
- Expectations Continue to Rise
  - Each Permit More Prescriptive and Restrictive
- Political Will and Stakeholder Influence
  - Never Enough for the Environmentalists
  - Always Too Much for Developers
  - You & Elected Officials Caught in the Balance
- Balancing Growth with StormWater Quality
  - Neighboring Communities at Odds
  - MS4 Communities at Disadvantage





# Permit Program Administration

- Required by Clean Water Act
- Kentucky Division of Water Issues & Enforces Permits
- EPA Enforces in Every State and U.S. Territories
- **Not An OPTION**



Division of Water



# NPDES History

- 1972 Clean Water Act
- 1990 Phase I Storm Water Program for Larger Cities
- 1999 Phase II Rule Published for Smaller Urban Areas
- 2003 Phase II Program Starts
- 2016 Remand
- 2018 3<sup>rd</sup> Phase II Permit

National  
Pollutant  
Discharge  
Elimination  
System

**NPDES**

Municipal  
Separate  
Storm  
Sewer  
System


**MS4**




# Kentucky MS4 Communities

You're Only Alone if You CHOOSE To Be


## Legend


 MS4 Communities


 Major Rivers

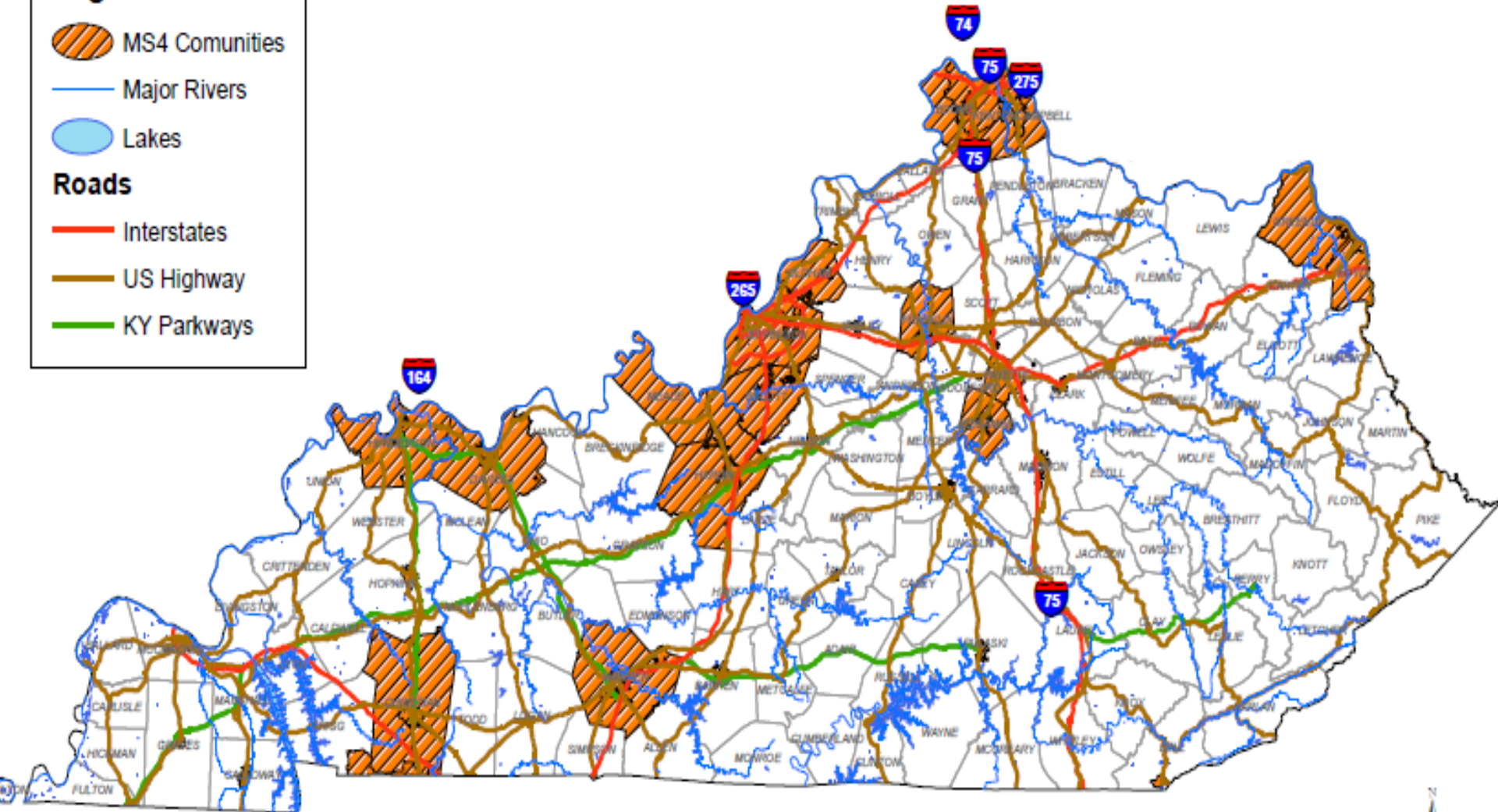
 Lakes

## Roads

 Interstates

 US Highway

 KY Parkways



# MS4 Operator

- City / County / Public Agency
- Responsible for O&M of Drainage Infrastructure
- “CEO”:
  - Mayor
  - Judge Executive
  - Director
- City/County Engineer
- MS4 Manager



# Official Certification Signature

## PART E: CERTIFICATION AND SIGNATURE

► The individual completing this report, listed in "PART A: GENERAL INFORMATION – MS4 OPERATOR" must sign the following certification statement:

*"By signing this annual report, I hereby certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

Type or Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



# Kentucky MS4 Timelines

**Phase I** communities start participating in MS4  
(ex. Louisville, Lexington, Indianapolis, Nashville, etc.)

Louisville 1<sup>st</sup>  
MS4 Permit  
Issued

Louisville 2<sup>nd</sup>  
MS4 Permit  
Issued

Louisville 3<sup>rd</sup>  
MS4 Permit  
Issued

1990

1994

1998

2002

2006

2008

... ..

2018+

**Phase II** requirements  
(ex. Bowling Green, Frankfort,  
Oldham County, etc.)

Lexington Consent  
Decree (w/MS4)  
Process Starts

**Phase II 3<sup>rd</sup>**  
MS4 Permit  
Issued

**Phase II 1<sup>st</sup>**  
MS4 Permit  
Issued

Lexington  
MS4 Permit  
Issued

**Phase II 2<sup>nd</sup>**  
MS4 Permit  
Issued

# Phase 1 or 2

- EPA Prioritized by Size
- Phase I (Large and Medium)
  - Louisville, Lexington, \*KYTC & \*UK
  - *“Individual Permit”*
- Phase II (Small)
  - *> 10,000 population + density*
  - *Small Cities in Urban Areas*
  - *“General Permit” ... for now*





# Hierarchy



➤ CWA - Congress/President

➤ EPA

➤ KDOW

MS4 Permit

➤ MS4 Operator

NOI & SWQMP

# Phase II MS4 Permit

- **KDOW Document**
- **Defines:**
  - **Minimum Activity Expectations**
    - Often Vague Narrative
    - Some Specific Options
    - Some Specific Deadlines
  - **How to Apply for “Coverage”**
  - **How to Report Progress**
  - **How to Request Changes**



# Phase II MS4 Notice of Intent (NOI)

- Application for Coverage
- Defines Roles and Responsibility
- Acceptance of:
  - Permit Conditions
  - Requirements
  - Schedule
  - Consequences



# Minimum Control Measures (MCM) *(Groups of Activities)*

1. Public Education and Outreach Programs
2. Public Involvement Programs
3. Illicit Discharge Program
4. Construction Site Runoff Controls
5. Post Construction Runoff Controls
6. Pollution Prevention At Municipal Facilities
7. \*Training
8. \*Reporting
9. \*TMDLS
10. \*Monitoring



# SWQMP / Tables

- Stormwater Quality Management Plan
- Local Document
- 5-Year Business Plan
- Permit Negotiation Tool
- Compliance Points Defined
  - Who, What, When
  - How (sometimes)



## Kentucky Division of Water

### GENERAL PERMIT ANNUAL COMPLIANCE REPORT.

Phase II Stormwater MS4  
Kentucky Division of Water

**NOTE:**

- In order to comply with KPDES sMS4 permits, annual reports must be submitted to the Kentucky Division of Water.
- Please type or print in ink.
- Please answer all questions thoroughly and return the form by the due date.
- Return this form and any required addenda to the KDOW MS4 Coordinator at the address listed in the box on the upper-right.
- For 2010 Annual Report only, report is due by March 1, 2011.

For questions regarding this form, contact:  
**Abigail Rains**  
ENERGY AND ENVIRONMENT CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
Division of Water  
200 Fair Oaks Lane, 4<sup>th</sup> Floor  
Frankfort, KY 40601  
Phone: (502) 564-8158, Extension 4891  
Web Access: <http://water.ky.gov>

**REPORTING YEAR**

(Check one)

- 2008  
 2009  
 2010  
 2011  
 2012

#### PART A: GENERAL INFORMATION – MS4 OPERATOR

1. Report Completed By: \_\_\_\_\_  
(MS4 Operator — i.e., name of permit holder)

2. Permit Number: KYC2 \_\_\_\_\_

3. Mailing Address  
Street Address:

City       County      Of:       Other      Zip:      County:

#### PART B: GENERAL INFORMATION – CONTACT PERSON

4. Contact Person Name (please print): \_\_\_\_\_

5. Contact Person Title: \_\_\_\_\_

6. Phone Number: \_\_\_\_\_

7. Facsimile Number (if applicable): \_\_\_\_\_

8. E-mail Address (if applicable): \_\_\_\_\_

# Annual Permit Compliance Report

elected official  
signs

# Maximum Extent Practicable (MEP)

- More than the “Counting Beans”
- Linking an “Activity” with “Benefit”
- MEP (Practicable ≠ Possible)
- We Can’t Afford to do Every “Good” Idea
- Planning Necessary to Choose the “Great” Ideas to Meet “MEP”





# Interpretations of Maximum Extent Practicable (MEP)

## CWA Section 402(p)(3)(B)

Permits for discharge from municipal storm sewers shall require controls to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.



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**and** such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

**Must or May ?**

# Total Maximum Daily Load (TMDL)

- KDOW/EPA Performed Watershed Study
- Define Gaps to Meet Water Quality “Goals” for Specific Pollutants
- Often Confused as Defining “Requirements”
- Trigger MS4 Operator Activities



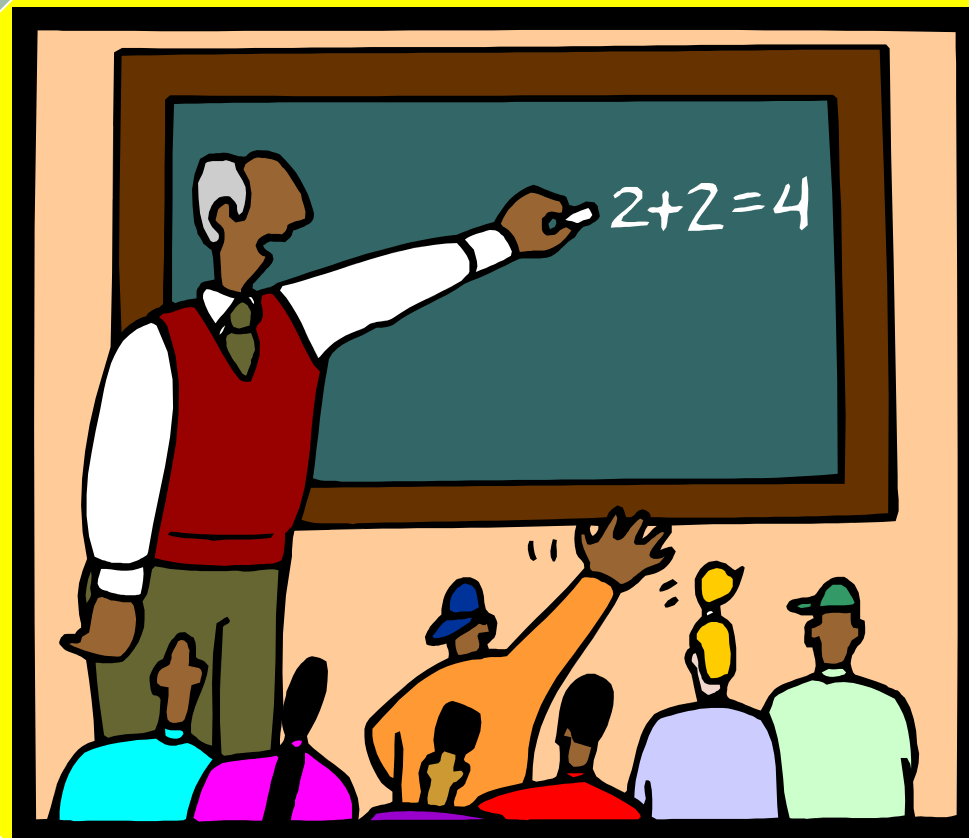
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# Public Education and Outreach



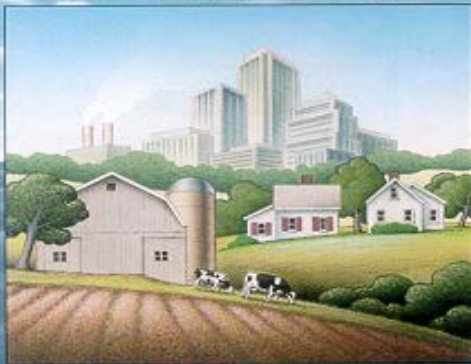
KSA



# Public Education & Outreach

Minimum Control Measure # 1 (Educate)

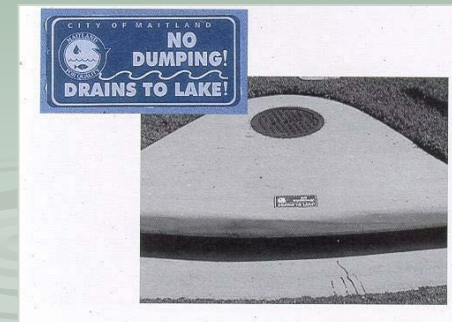
*Nonpoint  
Source*



**POLLUTION**

*You Are  
The Key  
To The Cleanup*

- Must Implement a Program
  - Describe Impacts of Storm Water
  - Describe How to Reduce Pollution
- Specific Targeted Priorities
- Specific Targeted Groups
- Include all Sub Communities





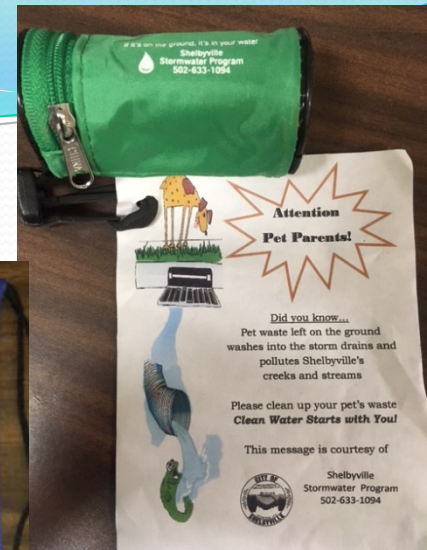
# Restoring Elected Official Knowledge

- Hold a workshop when the cameras aren't rolling
- Talk to them one on one
- Find a “champion” or two
- Take them on a tour of your infrastructure
- Develop a business plan
- They won't understand the permit requirements, so remind them of the O&M needs



# Marketing Effort

- Business Cards
- Giveaways
  - Pens
  - Pencils
  - Frisbee/coaster
  - Cup`s
  - Buttons
  - Pet Waste Baggies
  - Balls
- Trucks, Uniforms



# Get the Word Out

- Seek opportunities to speak to community groups and leaders
  - Rotary, Lions Club
  - Boy Scouts/Girl Scouts
  - School Classrooms
  - HOA meetings
  - Home Builders Meetings
- The message is simple, but focused

# Make Friends in High Places

- Media relationships are critical
- Newspaper “political beat” reporter
- Local TV news - If available
- Find local radio
- Local public information station on cable

# Training, Training, Training

- Sounds so simple, but often overlooked
- Don't underestimate the value of frequent communication with the elected officials, the development community, community groups, staff
  - Deliver the same message every time (reinforcement)
  - Keep it simple
  - Make it relevant

**You have to tell them 12 times  
before they hear it once!**



# Tips for MCM 1 and 2

- Find a way into the schools
  - Project Lead the Way
  - Soil Conservation Service
  - Science Teachers
  - Personal Contacts
- Find volunteers that are good teachers
- Don't overlook obvious partners or other local agencies





# Pick an Annual Event

- Do you have a community event that you can set up a booth?
  - Earth Day Event
  - Street Festival
  - Chamber of Commerce community events
- Make it the focus of your annual effort



# Be Seen

- Uniforms
- Vehicles
- Banners
- “Do”, don’t just “Say”



# Be Heard

- Ads on TV, Radio, Movies



# Public Involvement and Participation



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# Public Participation and Involvement

United States  
Environmental Protection  
Agency

Office of Water  
(4203) January 2000 (revised December 2005)  
EPA 833-F-00-006  
Fact Sheet 2.4

## Stormwater Phase II Final Rule

### Public Participation/ Involvement Minimum Control Measure

This fact sheet profiles the Public Participation/Involvement minimum control measure, one of six measures the operator of a Phase II regulated small municipal separate storm sewer system (MS4) is required to include in its stormwater management program to meet the conditions of its National Pollutant Discharge Elimination System (NPDES) permit. This fact sheet outlines the Phase II Final Rule requirements and offers some general guidance on how to satisfy them. It is important to keep in mind that the small MS4 operator has a great deal of flexibility in determining how to satisfy the minimum control measure requirements.

#### Why Is Public Participation and Involvement Necessary?

EPA believes that the public can provide valuable input and assistance to a regulated small MS4's municipal stormwater management program and, therefore, suggests that the public be given opportunities to play an active role in both the development and implementation of the program. An active and involved community is crucial to the success of a stormwater management program because it allows for:

- **Broader public support** since citizens who participate in the development and decision making process are partially responsible for the program and, therefore, may be less likely to raise legal challenges to the program and more likely to take an active role in its implementation;
- **Shorter implementation schedules** due to fewer obstacles in the form of public and legal challenges and increased sources in the form of citizen volunteers;
- **A broader base of expertise and economic benefits** since the community can be a valuable, and free, intellectual resource; and
- **A conduit to other programs** as citizens involved in the stormwater program development process provide important cross-connections and relationships with other community and government programs. This benefit is particularly valuable when trying to implement a stormwater program on a watershed basis, as encouraged by EPA.

#### What Is Required?

To satisfy this minimum control measure, the operator of a regulated small MS4 must:

- Comply with applicable State, Tribal, and local public notice requirements; and
- Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure. Possible implementation approaches, BMPs (i.e., the program actions and activities), and measurable goals are described below.

- Must provide ways for citizens to participate in program development and implementation
- May include public meetings/hearings, volunteer water monitoring, storm drain stenciling, stream clean-ups, etc.



#### Stormwater Phase II Final Rule Fact Sheet Series

##### Overview

1.0 - Stormwater Phase II Final Rule: An Overview

##### Small MS4 Program

2.0 - Small MS4 Stormwater Program Overview

2.1 - Who's Covered? Designation and Waivers of Regulated Small MS4s

2.2 - Urbanized Areas: Definition and Description

##### Minimum Control Measures

2.3 - Public Education and Outreach

2.4 - Public Participation/Involvement

2.5 - Illicit Discharge Detection and Elimination

2.6 - Construction Site Runoff Control

2.7 - Post-Construction Runoff Control Minimum Control Measure

2.8 - Pollution Prevention/Good Housekeeping

2.9 - Permitting and Reporting: The Process and Requirements

2.10 - Federal and State-Operated MS4s: Program Implementation

##### Construction Program

3.0 - Construction Program Overview

3.1 - Construction Rainfall Erosivity Waiver

##### Industrial "No Exposure"

4.0 - Conditional No Exposure Exclusion for Industrial Activity

# Give citizens a chance to be involved

- Stream Clean-ups \*
- Storm Drain Marking\*
- Litter Clean-ups \*
- Rain Barrels
- Workshops
- What are others doing?



\* Budget for “Stuff”







**Participate:  
More “fun stuff”**

**7.18.2000**

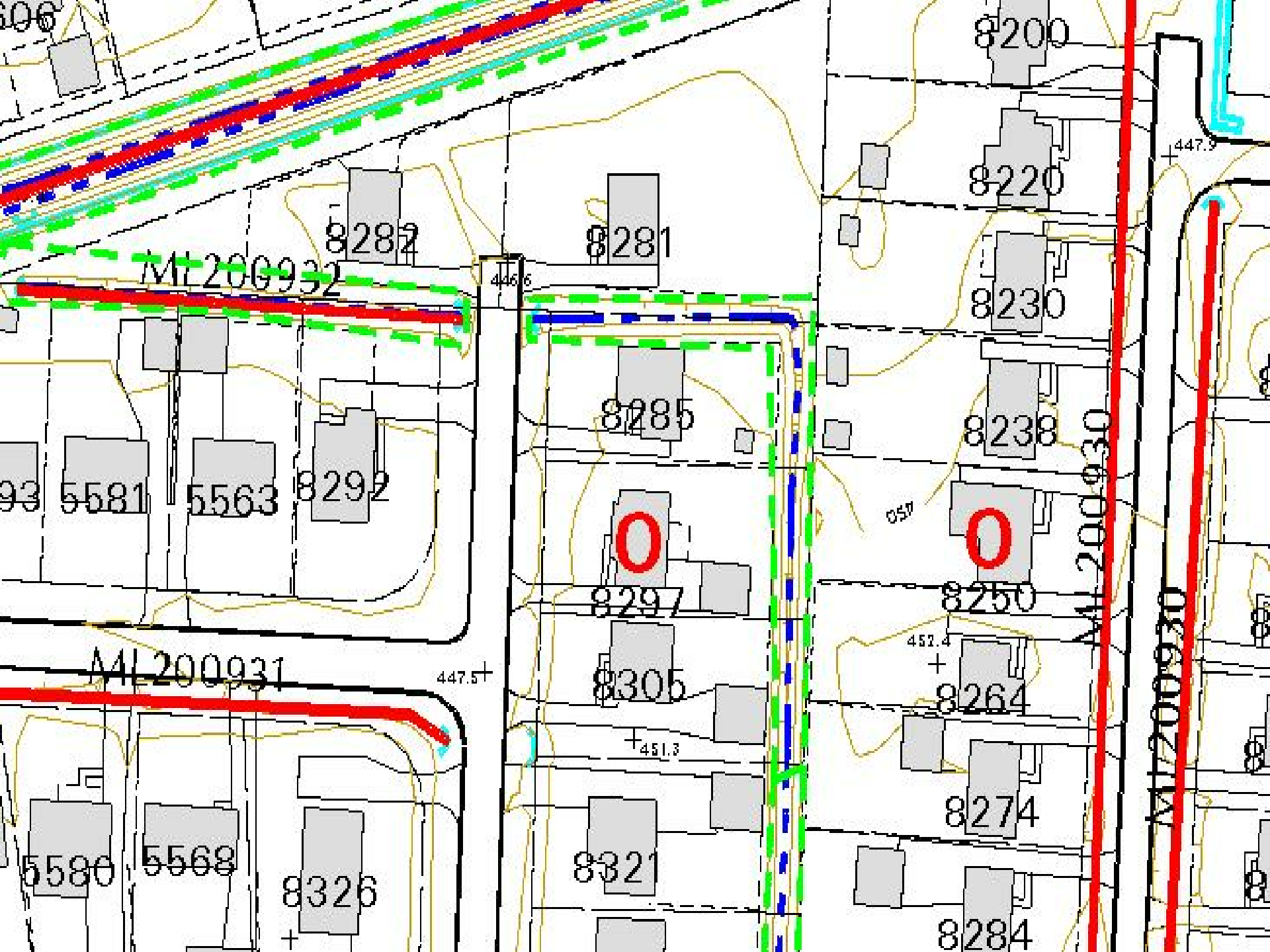


# Illicit Discharge Detection and Elimination



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106

8200

8220

8282

8281

ML 200932

446.6

8230

447.9

5581

5563

8292

8285

8238

93

0

0

057

8297

8250

ML 200930

ML 200931

447.5

452.4

+

8305

8264

451.3

5580

5568

8326

8321

8274

8284

ML 200930

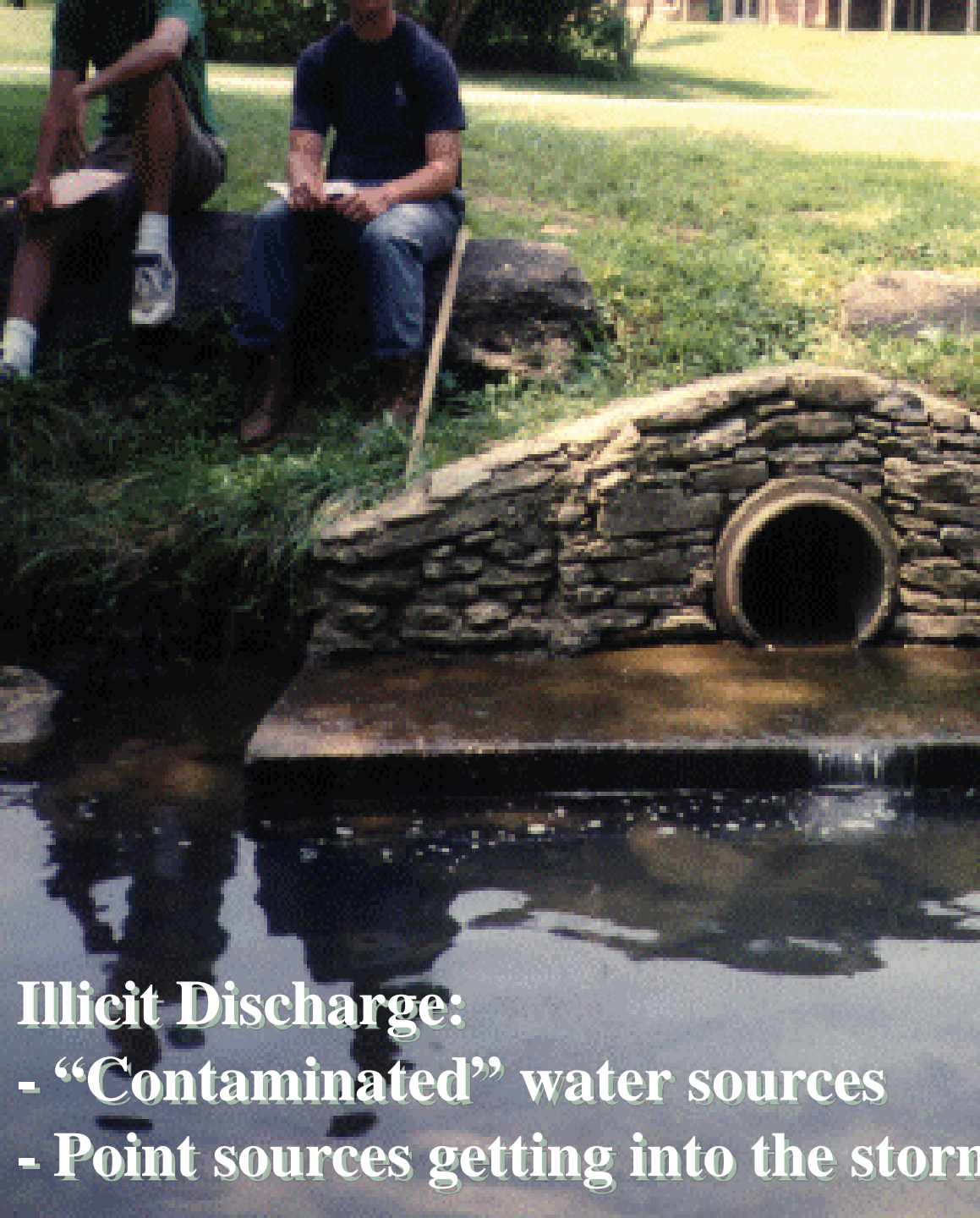
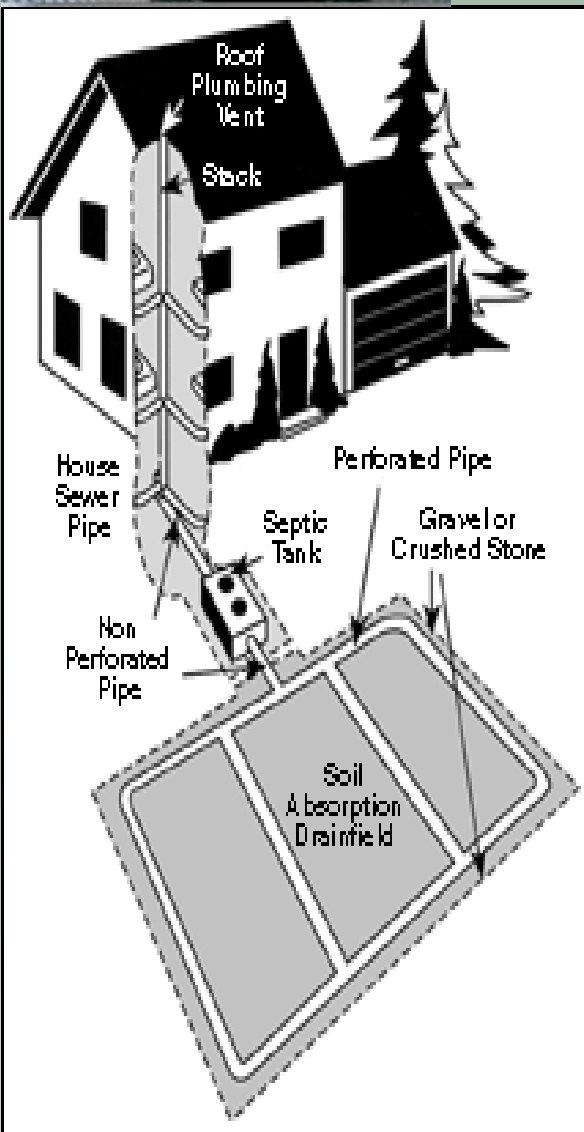


PHOTO: PHOTODISC

## Illicit Discharge:

- “Contaminated” water sources
- Point sources getting into the storm water

# Illicit Discharge Detection and Elimination



- Develop a plan to detect & address illicit discharges
- Storm Sewer System Map
  - Pipes, outfalls, topography, and problem areas
  - Geographic information system
- Illicit Discharge Ordinance
- Find source of illicit discharges
- Remove / correct illicit connections
- Document & Communicate
  - Complaint Management
  - Illicit Discharge Documentation
  - Educational Outreach



# Tips for MCM 3

- Invest in a good map
  - Makes dealing with complaints and investigations easier
  - Enhances record keeping
- Partner with your other Agencies and Departments (Code Enforcement, Fire, Police, Public Works, Water & Sanitary Sewer)
- Finding Common Threads
  - Sewer Dept. I&I program
  - Lab Work





# Construction Site Runoff



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# Const. Site Storm Water Runoff Control

Minimum Control Measure # 4



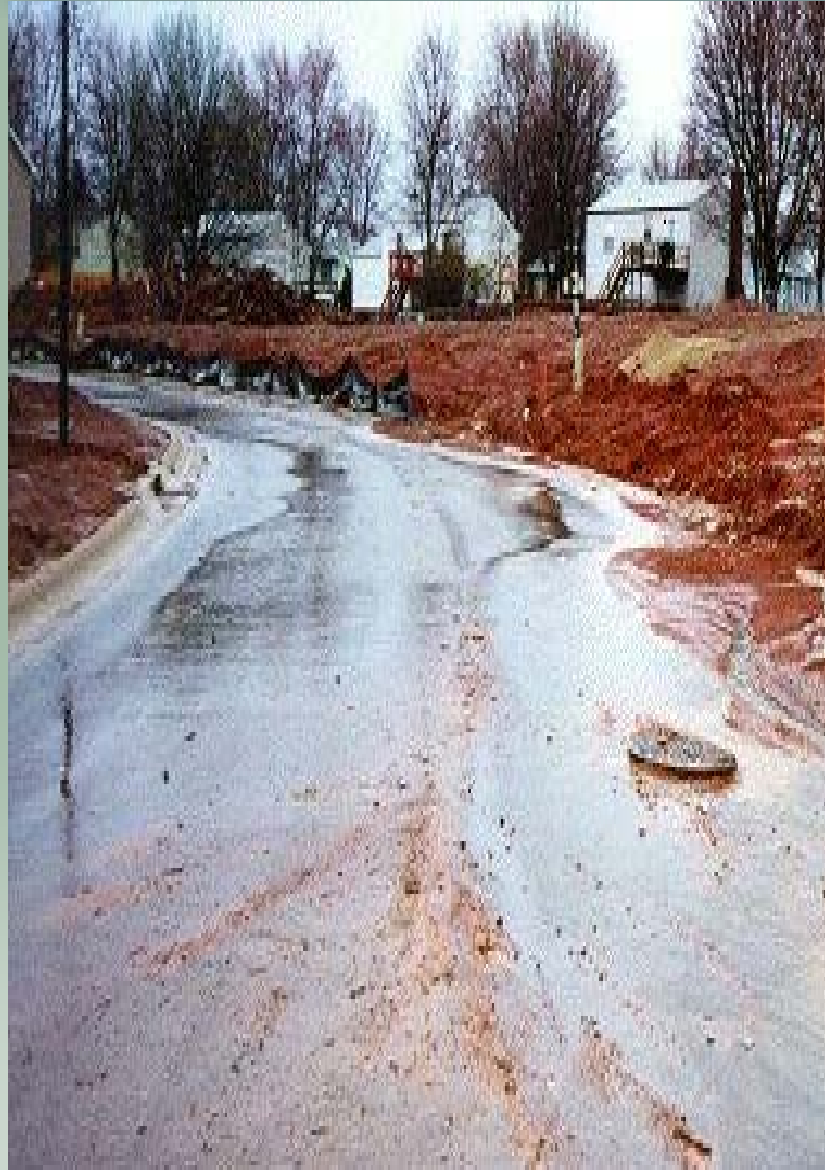
## ➤ Must Develop, Implement & Enforce A Control Program and Ordinance

- Sites Greater Than 1 Acre
- Control Site Wastes
- Pre-construction Site Plan Review
- Inspection & Penalties
- Public Input



# Const. Site Storm Water Runoff Control

Minimum Control Measure # 4



- **BMP Manual**
- **Training Sessions:**
  - **City Staff**
  - **Development Community**
  - **Public**
- **Staffing Needs**
  - **Inspection**
  - **Review**

# Tips for MCM 4

- Staff inspection
  - Find teachable moments
- Work with the Developer and Contractor, not against them
- Meet your KYDOW inspector and work with them
  - Ditto for Building Inspection
- Establish a local permitting program
  - Identify your problem areas
- Make it easy and cheap to submit a SWPPP

**CITY OF SHELBYVILLE**  
**STANDARD EPSC PLAN FOR PLOT PLAN**  
(For disturbances < 1 acre)

This form can be used if the following conditions are met:  
- Disturbs less than 1 acre  
- Adds less than 3400 sq. ft. of new impervious surfaces,  
and  
- Contains no critical slope or flood hazard areas.  
Otherwise, a detailed EPSC plan will be required

PERMIT # \_\_\_\_\_

Please read and complete the bottom of this form before completing this section.

For plot plans, chose one of the following options:  
1. The most appropriate, form below, is option \_\_\_\_\_ or a combination of options \_\_\_\_\_ & \_\_\_\_\_  
2. The sedimentation control devices will be installed and maintained as drawn in Option G below.

Does the site have a sinkhole, drainage inlet, drainage easement, or stream? Yes \_\_\_\_\_ No \_\_\_\_\_  
If yes, indicated additional measures on appropriate option below.

Will excavated materials be stockpiled or used as fill on site? Yes \_\_\_\_\_ No \_\_\_\_\_  
If yes, show the location of the stock piling or filling on the schematic below, with additional measures to protect adjacent properties.

ANTICIPATED START DATE OF CONSTRUCTION: \_\_\_\_\_

Qualified Contractor: \_\_\_\_\_

**EPSC OPTIONS**

**INSTRUCTIONS:** Identify one or any combination of letters for the EPSC schematic that best describes the measures that will be used on this property during construction.

Flow to Rear

Option A

Flow to Front

Option B

Flow to Left

Option C

Flow to Right

Option D

Flow to Front & Back

Option E

Flow to Left & Right

Option F

Option G

Option G

**Legend**

- SF — Silt fence or silt netting
- ▨ Stabilized Construction Entrance
- Direction of Flow (pole downhill)

For Option G, show flow lines and proposed EPSC measures.

# Post Construction Management



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# Post-Construction Storm Water Management for New Development and Redevelopment

Minimum Control Measure # 5

- You Must Develop, Implement & Enforce Runoff Control Measures ....
  - Ordinance requiring BMPs
  - Long-Term Operation and Maintenance
  - Minimize Water Quality Impacts
- EPA Recommends
  - Watershed Planning
  - **Sensitive Area Protection (SINKHOLES)**
- Good Planning and Development Review
- Follow-up and Monitoring





# Tips for MCM 5

- Routine Inspection
- Private Owner Education / Outreach
  - Teachable moments
- Have a plan to maintain the BMPs if you require them



# Pollution Prevention / Good Housekeeping



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# Pollution Prevention/Good Housekeeping for Municipal Operations

## Minimum Control Measure # 6



### ➤ Must Implement Sound Operations/Maint. Programs

- Include Training
- Park and Open Spaces
- Fleet Maintenance Fac.

### ➤ EPA Recommends...

- Litter Control Processes
- Proper Disposal from Storm Drains

### ➤ Weave Into Existing Practices

### ➤ Train Staff to Be Aware

# Facility Stormwater Pollution Prevention Plans (SWPPP)

## Must Include:

- **Potential Sources**
- **Potential Discharge Points**
- **BMPs between Potential Sources and Discharge Points**
  - Structural
  - Non-Structural (Staff Procedures)
- **Annual Training Program**
  - Easy to Develop Outline and Signup Sheet
- **Quarterly Inspections (Documented)**





# Facility SWPPPs

- Lots of Facilities to Potentially Include
  - Public Works Center
  - Water and Sewer Plants
  - Parks and Golf Courses
  - Anywhere Fuel is Stored (Remember Emergency Generators)
  - Recycling Centers
  - Fire Stations
  - Fire Trainaing Center
  - Police Stations
  - Police Impound Lot
  - Police Garages
  - Public Schools
  - Co-permittees



# Facility SWPPPs

- Document
  - Facilities Included
  - Facilities Not Included
  - Why
- Group the Repetitive
- ~~Steal~~ Use Easy to Find Examples
- Schedule and Budget for Quarterly Inspections
  - Use Standardized Forms

# Shelbyville Facility SWPPPs

- New Equipment
  - Spill Containment Pallets
  - Fire Proof Cabinets
  - \$7,300 in 2019
  - Fire Departments
  - Public Works Department
  - Golf Course
- Equipment Closure
  - Outdoor Storage Totes – Oil
  - Replaced with Interior Drums on a Spill Containment Pallets

# Tips for MCM 6

- Good data management
- Training for Public Works staff
- Do something the citizens can see
  - Maintain your system
  - Be seen when doing inspections
- Find those common threads
  - Water and Sewer Department
  - Parks
  - Public Works (street sweeping)
  - Recycling
  - Co-permittees
- Remember “Housekeeping”





# The “Other Required Stuff”

- Annual Report
- Monitoring
  - Plan by PY 5 if New Program
  - Data Summary in Annual Report if Existing Program
- TMDL (if yes)
  - Monitoring Program Guided
  - New Notifications from KDOW



# Shelbyville Monitoring

- Plan Completed 2015
- Needs to Be updated
- Basic Components
  - Visual Assessments
    - IDDE
    - Outfalls
    - Citizen Complaints
  - Post-Construction BMPs
    - City BMPs
    - Private BMPs
  - Electronic Data Management
  - Volunteer Data from Watershed Interest Groups
    - Salt River Watershed Watch
    - Kentucky Water Alliance Clear Creek Trailblazers
    - Clear Creek Conservations Trust

# Part 1 SUMMARY

- There Are Many Frame of Mind Choices
- MS4 Program Have Many Small Tasks
- MS4 Has Gradually Grown Over Decades and Will Continue to Change
- You're Only Working Alone If You Choose To Be
- There Is Value and Benefit to Learning From and Working With Your Neighboring Communities



# Thank you

## Questions? Call us!

Chad McCormick, PE, CFM

Jennifer Herrell, PE, CFM



Land Design and Development, Inc.  
503 Washburn Ave  
Louisville, KY 40222  
(502) 426-9374  
(502) 724-9356 Cell  
mccormick@ldd-inc.com



City of Shelbyville  
Public Works Department  
787 Kentucky Street  
Shelbyville, KY 40065  
(502) 633-1094  
(502) 633-5481 fax  
jpherrell@mw.twcbc.com



# Pre-Conference Workshop

## Introduction for New MS4 Coordinators and Elected Officials

Kentucky Stormwater Association  
Annual Conference, June 2016



Chad McCormick, PE, CFM

Jennifer Herrell, PE, CFM



# Overall Agenda

- ✓ 1 – Introduction
- 2 – Program Finance  
Planning in Uncertain Times
- 3 – Annual Reports: Avoiding  
the Rush
- 4 – Program Audit  
Preparedness  
**(EPA IN KY IN 2020)**



Pre-Conference Workshop

2 – Program  
Finance Planning in  
Uncertain Times



# Purpose

Give You The “trick” To:

Do It All for Free

KSA





# Purpose

Aim You Toward Important  
Issues

Introduce You to  
People and Resources



# Part 2 - Objectives

- Confirm the Problem
- Identify Options
- Examine Development Service Fees
- Discuss General Utility Fees
  - Legal
  - Rate Structure
  - Community Acceptance
  - Rates



# Stormwater

## “The Forgotten Investment”

### Drinking Water

Very Visible

Infrastructure  
\$\$millions

Dedicated  
Funding

Metered use  
- equitability

### Wastewater

Very Visible

Infrastructure  
\$\$millions

Dedicated  
Funding

Estimated  
use from meter  
- equitability

### Stormwater

Often Overlooked

Infrastructure  
\$millions

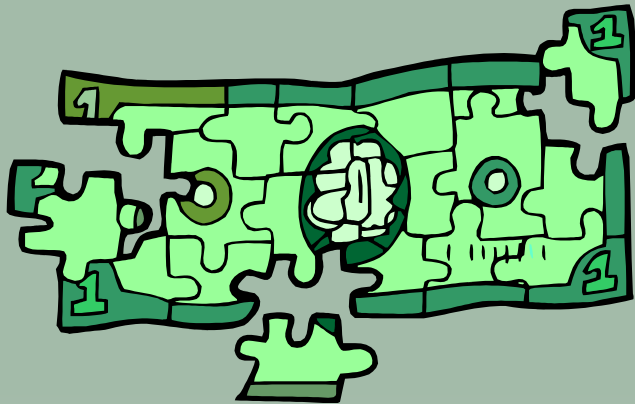
No Dedicated  
Funding

Shared equally  
via taxes  
-no equitability



# Funding Mechanism Alternatives

- ADMINISTRATION EXPENSES
  - General Fund
  - Utility Service Charge
- MAINTENANCE CREWS
  - General Fund
  - Utility Service Charge
- CAPITAL IMPROVEMENTS
  - General Fund
  - Bonds
  - Special Assessments
  - Utility Service Revenues
- NEW DEVELOPMENT (pay for itself)
  - General Fund
  - Plan Review and Inspection Fees
  - Impact Fees
  - Fee-in-lieu of
  - Availability Fee



# Staffing

- Staffing isn't always hiring more people
- Partner with Non-profits and Volunteer Groups
  - Boy Scouts
  - Churches
- Consultant Help
- Partner or have Interlocal Agreements with:
  - P&Z
  - Building Inspection
  - Water and Sewer Department



# Funding

- We all know the General Fund isn't the answer
- Develop your business plan and budget to distinguish between:
  - Permit Compliance
  - O&M
  - Capital Improvements
    - Everyone will see the permit “bean counting” is the small cost
- Use your “Champions” to encourage dedicated funding
- Look for grants, partnerships

# Site Inspection Fee (Henderson, KY)

**Table J**

<b>Development Inspection Fees</b>	
<b>Water (Per Plan Foot of Line)</b>	
Field Inspection Cost	\$0.47
GPS Field Measurements	0.09
<b>Subtotal Water Per Foot of Line</b>	<b>\$0.56</b>
<b>Sanitary Sewer (Per Plan Foot of Line)</b>	
Field Inspection Cost	\$0.87
Gravity Sewer Line CCTV Inspection	0.90
GPS Field Measurements	0.04
<b>Subtotal Sanitary Sewer Per Foot of Line</b>	<b>\$1.81</b>
<b>Storm Sewer (Per Plan Foot of Line/Ditch)</b>	
Field Inspection Cost	\$0.57
Gravity Sewer Line CCTV Inspection	0.90
GPS Field Measurements	0.09
<b>Subtotal Storm Sewer Per Foot of Line/Ditch</b>	<b>\$1.56</b>



# Rain Tax versus Service Fee

## Tax

- Based on Property Value
- Not everybody pays
- Loopholes
- Somewhat hidden from residents
- Doesn't have to equate to services

## User Fee

- Visibly Based on Usage
- Quantifiable Calculation and/or Credit
- Examples:
  - Wastewater
  - Drinking Water
  - Electricity
  - Solid Waste
  - Stormwater



# Fairness and Equitability Policy

## How much is paid? Who pays?

- Defining “Residential” – Apartments vs Condos
- Offsite owner responsibilities
- Multiple User / Tennant Properties
- Mobile Home Parks and Condos
- Public Roads and Rights of Way
- Agricultural Properties
- Appeals and Accountability
- Defining Impervious Area
- Credits



# What are others doing?



- **Many Phase II communities leaning toward utilities combined with other fees**
  - **General Fund**
    - too competitive
    - inequitable for stormwater
  - **Special Service Fees**
    - Effective in building some revenue
    - Limited in building compensatory revenue
  
- **Several Kentucky communities in preliminary evaluation stages**







# What are others doing?

- **Public Outreach**
- **Bringing stakeholders in early**
- **“Fair and Equitable” is more than a cliché**
- **Defending it early or maybe lose it all**
- **Drainage & Flood control more commonly included**
- **Providing flexibility to gradually expand to meet demand**



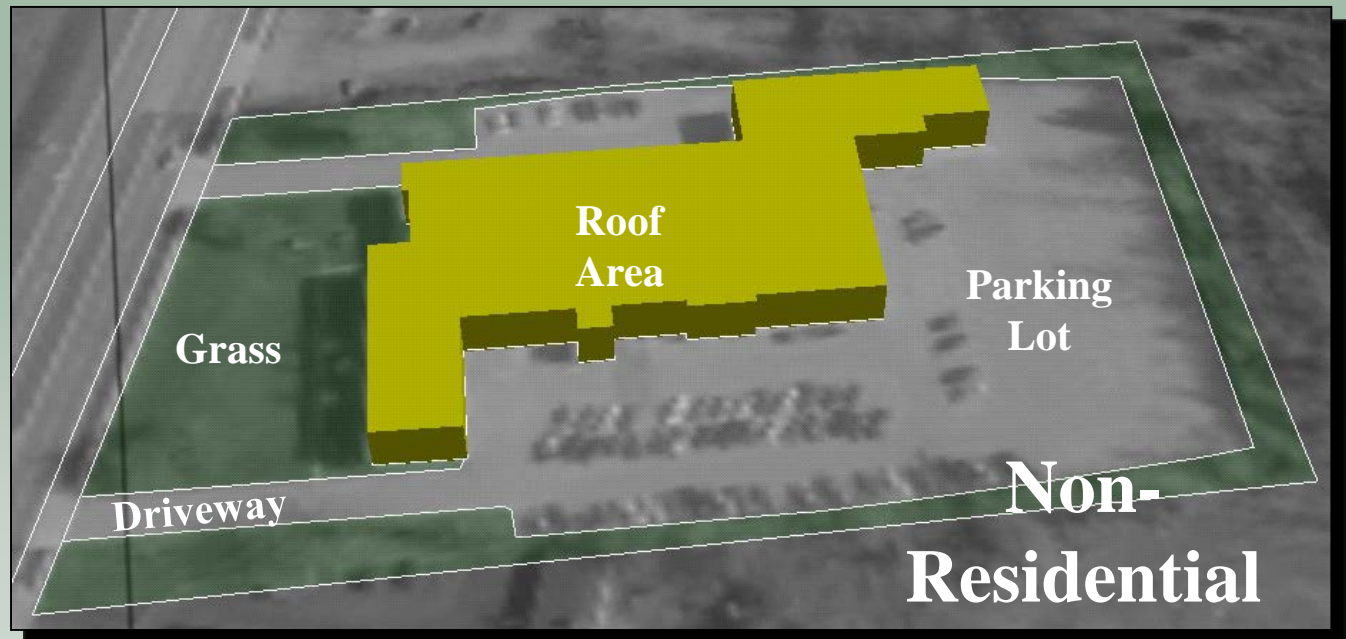
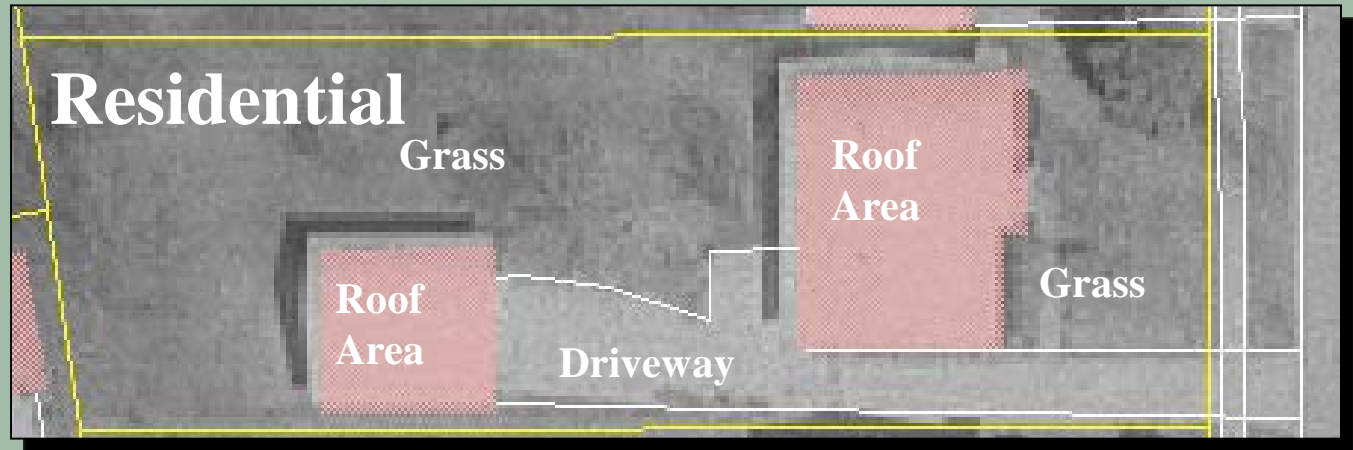
# Legal Aspects - Utilities

- **Ordinance / City Charter Chapter**
- **Kentucky Revised Statutes**
  - KRS 76 Metropolitan Sewer District
  - KRS 220 Sanitation District
  - KRS 262 Soil and Water Conservation District
  - KRS 262.7 Watershed Conservation District
- **Kentucky Court of Appeals Ruling**
  - Long Run Baptist Church vs. Louisville/Jefferson County MSD (1989)
- **Fees to Federal Agencies**
- **Fee vs Tax: Rate Structure**

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# Impervious Area Method



# Why Build Consensus First



- **Correct does not always mean successful**
- **Most opponents have legitimate concerns**
- **Confidence is more voices**
- **Opportunities to identify and support “champions”**





# Level of Service

## What the City should and should not do?

- Capital projects
- Drainage complaints / projects
- Planning
- System Maintenance  
(preventative, emergency response & revitalization)
- Easements
- Right of Way
- Number of properties threshold
- “Must do” permits
- Administration
- Public and Elected Official Outreach





# EPA / KDOW / Public



- Cleaner streams
- Cleaner streets
- Less unwanted sediment
- One agency for response to problems

# Stakeholder Groups: Form and Function

Stormwater Advisory Committee

SAC - Public  
Stakeholders

Stormwater Management Subcommittee

SMSC - Staff and  
Elected Officials

Elected Officials

Core Group

Overview &  
Draft Review

Individual Interviews

Base Line  
&  
Feasible Activities

Elected Officials

# Stormwater User Fee Do's & Don'ts



- **Know What You Do Want**
- **Know What You Don't Want**
- **Know What It Costs**
- **Involve Your Constituents**
- **Do It Right The First Time**
- **Plan Ahead**
- **Get Involved and Understand**



# The Basic Process

- **Funding Options Analysis**
- **Level of Service**
- **Cost of Service**
- **Rate Structure(s)  
(billing policy)**
- **Rate Development**
- **Ordinance Approval**
- **Billing System**
- **Outreach 20% - 20% - 20%**



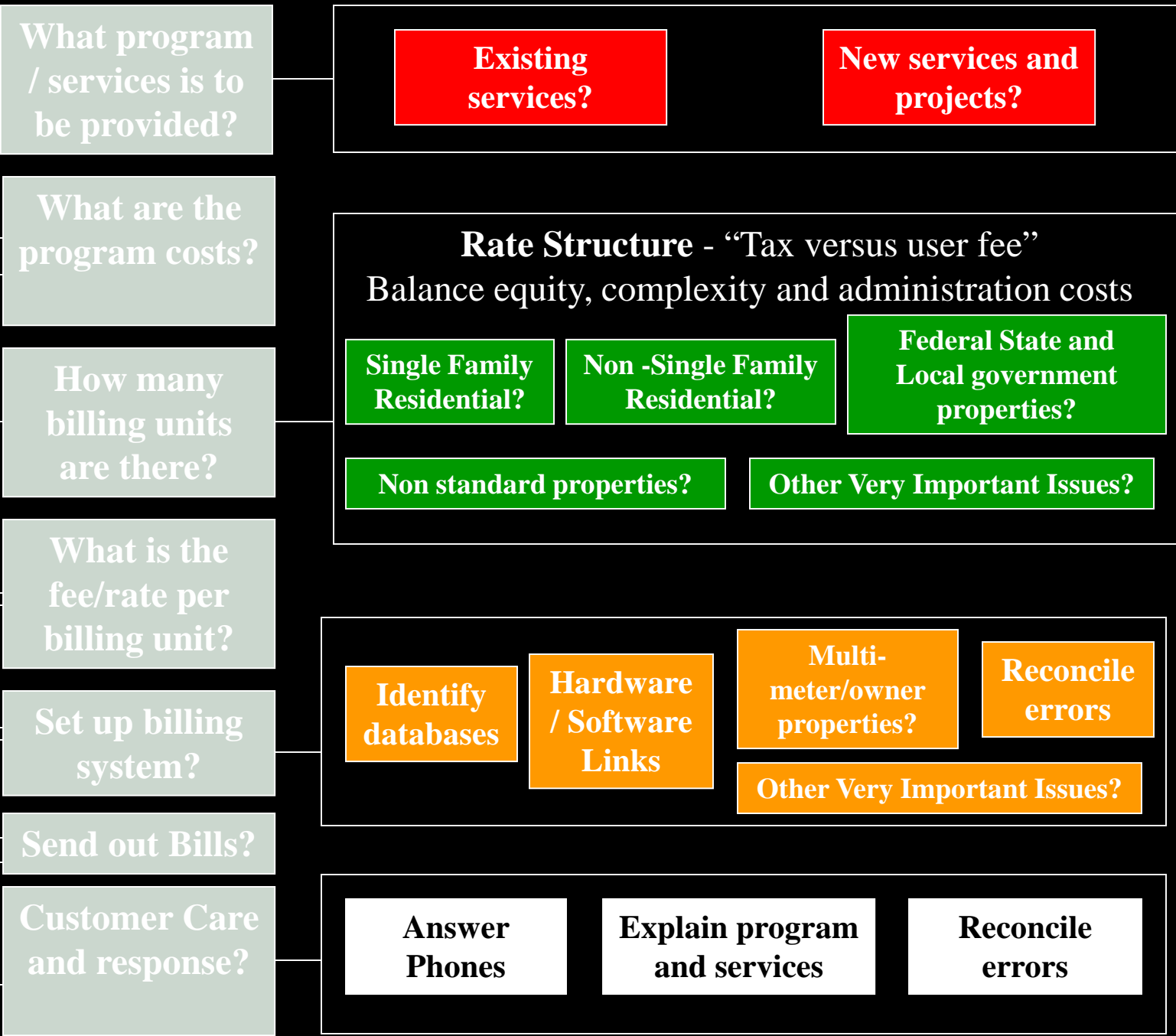
# Typical Steps in It Takes Time

- Typically takes between 8 and 45 months
  - 2 to 24 months planning prior to adoption
  - 3 to 9 months start up after adoption
  - 3 to 12 months implementation refining system
- 
- A large group of people, including men and women in business attire, are seated around a long conference table in a meeting room. They appear to be in a discussion or presentation. The room has large windows with blinds on the right side. The text is overlaid on the left side of the image.

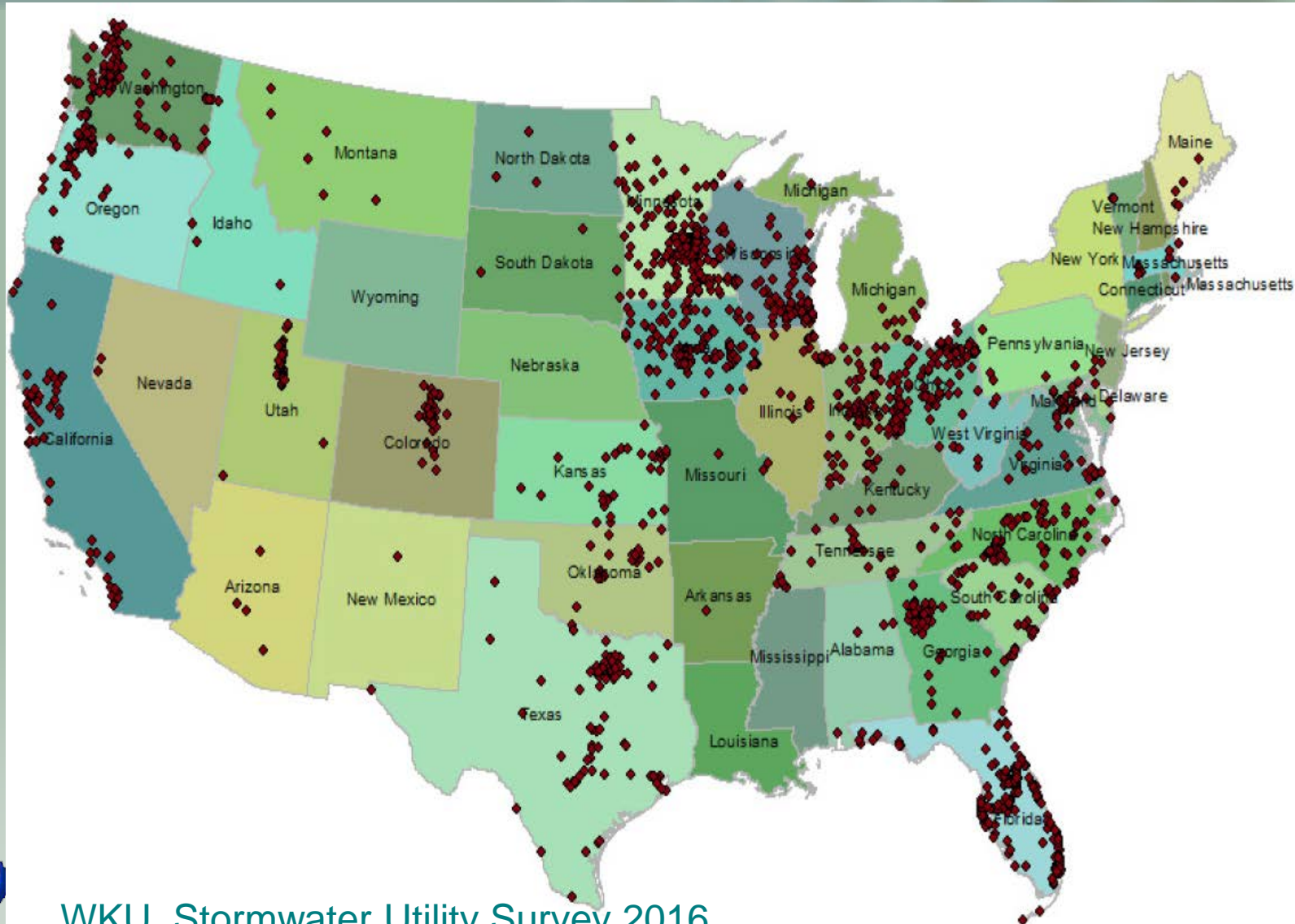


# Successful Utility Doesn't Skip Steps

## Public Education and Involvement



# Stormwater Utilities 2016



WKU, Stormwater Utility Survey 2016

# Stormwater Utilities

➤ 1,400 +  
Nationally

➤ 100 + Club:

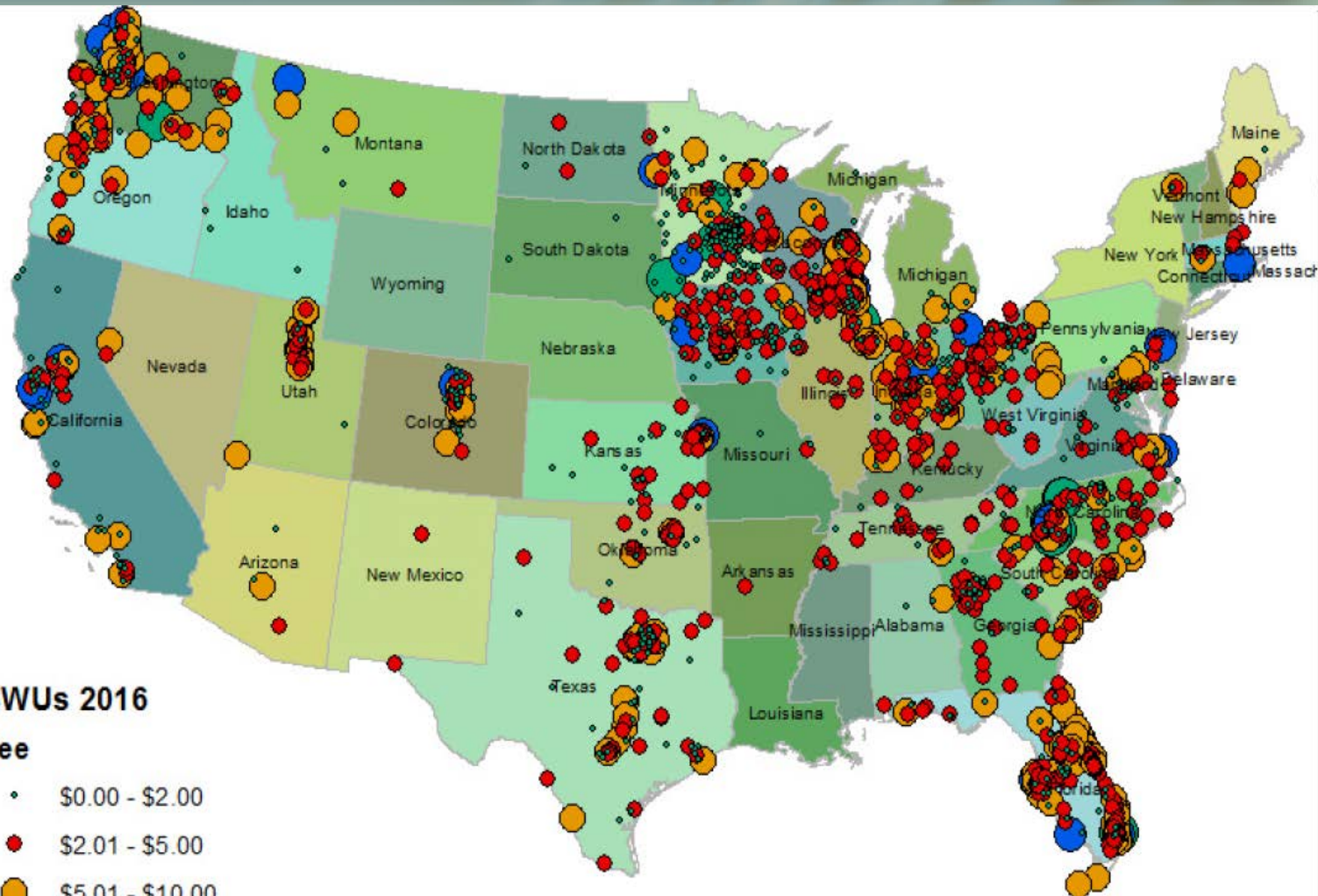
- Florida
- Minnesota
- Washington
- Wisconsin
- Ohio
- Texas

➤ Size:

- Largest – Los Angeles
- Smallest - Indian Creek Vil, FL 88 population
- Median – 19,200



# Monthly Fees 2016



**SWUs 2016**

**Fee**

- \$0.00 - \$2.00
- \$2.01 - \$5.00
- \$5.01 - \$10.00
- \$10.01 - \$20.00
- \$20.01 - \$69.25

**KSA**



WKU, Stormwater Utility Survey 2016



# Credits Policy

## ➤ **Compensating for going above and beyond**

- **Quantity (Flood Control)**
  - Detention & Retention
- **Quality (Pollution and Health)**
  - Treatment Practices  
(Best Management practices –BMPs)
  - Good Industrial performers
- **Both**
  - Education
  - Design: Impervious Area Reduction

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# Thank you

## Questions? Call us!

Chad McCormick, PE, CFM

Jennifer Herrell, PE, CFM



Land Design and Development, Inc.  
503 Washburn Ave  
Louisville, KY 40222  
(502) 426-9374  
(502) 724-9356 Cell  
mccormick@ldd-inc.com



City of Shelbyville  
Public Works Department  
787 Kentucky Street  
Shelbyville, KY 40065  
(502) 633-1094  
(502) 633-5481 fax  
jpherrell@mw.twcbc.com