# Developing and Implementing an Illicit Discharge Detection & Elimination Program

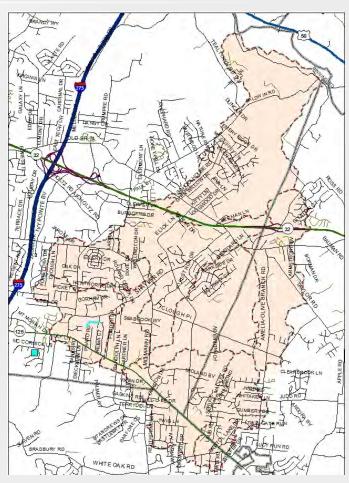
John McManus Clermont Soil & Water Conservation District

### First Step - System Inventory: Developing a Strategy

- October 2006 Start system inventory and condition assessment
- Clermont County 250 sq. mi.; 92 sq. mi. urban area
- Hiring consultant to complete all work not economically feasible
- Not currently equipped to do work in-house
- Plan hire consultant to inventory pilot watershed / develop SOP

### Pilot Watershed – Shayler Run

- Approx 12 sq. mi. watershed
- Urbanized upper half residential, some commercial/industrial; still growing
- Lower half steep topography, forested.
- 531# outfalls; est. 2700 structures



### Keys to Pilot Study

- Upfront planning before field work
- County staff as part of field crew
- Regular QC review of data/strategies
- Contract not to exceed vs. lump sum
  - \$185K contract –completed > \$36K under budget
  - Allowed for 2<sup>nd</sup> watershed still almost \$7K under
- RESULT Geodatabase Created; SOP Completed

### **Our Current Effort:**

### NPDES +

 "MS4 system (owned and/or operated by you), including catch basins, pipes, ditches, flood control facilities, post construction water quality BMPs..."

### The Plus

- Also gathering
  - Condition of structure
  - Amount of debris
  - Presence of flow
  - Serious problems
  - Pipe diameter
  - Pipe material
  - Depth of the structure
- County wide mapping, including rural areas
- Rule of thumb when mapping, follow public water to the outfall

### Plans vs. Field

### Plans used:

- Exclusively if recent (as recent as ~mid '90's)
  - All attribution derived from plans
  - No field visit required
  - QC against aerial photos
- Or to aid field work (if old)
  - Help discover structures on field visits
  - Confirm field work
    - If field attribution was problematic



# Tools of the Trade





## Always carried



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January 12, 2009

RE: Storm Water Sower System Inventory

Dear Property Owner:

The Clermont County Stormwater Department is undertaking a project to inventory the storm water sewer system serving your neighborhood. The purpose of this project is to gain an understanding of the location and condition of the system. It some locations, it may be necessary for field crews to enter private property to accurately map storm water structures.

Section 163.03 of the Ohio Revised Code allows our staff or designee to "...enter upon any lands, water, and premises for the purpose of making such streveys, sounding, additings, appraisals, and examinations as are necessary or proper..." Please he advised that our staff is instructed to exercise care and caution in order to mirrimze the impact of heir presence. Section 163.03 of the Ohio Revisec Code also states "The agency shall make restitution or reurbursement for any actual damage resulting to such lands, waters, and premises and to improvements or personal property located in, or., along, over, or under such lands, waters and premises, as a result of such activities."

Should you have any questions relative to this project or the scope of the various related functions, please do not besitate to contact me at (513) 732-7880.

Sincerely,

John McManus

Program Managea

WATER AND SEWER DISTRICT STORN WATER MANAGEMENT DEPARTMENT 4400 HASKEUL LANS, BATAYIA, CALID 45103 TELEPHONIE: (513) 732-7880 FAA: (513) 732-7310



Date: Time;		Nature of Discharge:	
Field Crew;		Watershed:	
		m 3 Days в Unknown Amount: в	<0.1" n >0.1"
Outfall ID:	Location:		
ource of Discharge			
hotograph Taken:	YesNo	#	
iample Collected:	Yes No	#	About 15 St. 15 E. G. West 15 To.
Undicator	CHECKIFIPHESON	Description	'Severity'Scale
Dry Weather Flow		Dry= No precio in past 48 frours	N/A
Stream Flow	<u></u>	.Flow Rate (If known)▶	[_] 1-Low [_].2-Normal [_] 3-Hign
Odar		L'Sewage I'Rotten eggs L'Randd/Sour L Petroleum/Gas L'Fragrant L'Other	☐ 1-Faint; barely detectable ☐ 2-Moderate; easi detectable ☐ 3-Unbearable; noticeable from a distance
Color	[_]	Clear	[_] 1-Slightly tinted [_] 2-Moderately fin [_] 3-Intense
Turbidity	L	See Severity Scale.	☐ 1-Slight cloudine ☐ 2-C oudy ☐ 3-Opaque
Fioatables (Does not include trash)	<u></u>	Sewage (toilet paper,etc.)   Petroleum (oil sheen)   Suds   Other:	[_]1-Slight [_]2-Some [_]3 Massive/Seve
Deposits/Stains		None	[ ] 1-Slight [_].2-Somc [_] 3-Massive/Seve
Vegetation	L.1	NormalA gaeDead	
Fish Kill		_] Small <5:fish] Medium Large ] Other animals	
ther Observations:			



Illicit Discharge Detection Form IDDF

September 2005

### Field Data

• Photos if warranted







(\$10 flip chart worth its weight in gold)



### **Current Inventory Efforts**

- MS4s required to develop and maintain comprehensive storm sewer map
- New subdivisions plans received from Building Dept.,
- Big challenge now updating ROW maps:
  - System improvements & replacements
  - Installation of new storm sewers (move from ditch to curb & gutter)
  - Important to get timely information from co-permittees

### Illicit Discharge Regulations

- Article 8 of Clermont County Water Management & Sediment Control regulations
- Enforcement
  - the authority to inspect properties
  - right to require the discharger to allow the installation of monitoring equipment
  - 1<sup>st</sup> step written notice of violation.
  - May require monitoring, remediation or implementation of best management practices.
  - May petition the appropriate court for injunctive relief to cease discharge or compel abatement/remediation
- <a href="http://permit.clermontcountyohio.gov/WMSCRegulations.aspx">http://permit.clermontcountyohio.gov/WMSCRegulations.aspx</a>

### Illicit Discharge Detection Program

- Dry weather outfall screening
  - Completed by SWCD/OEQ during inventory, turning over to co-permittees now
  - Train using illicit discharge detection form
  - Hot spots visited annually by Clermont SWCD
    - Past illicits and land uses that generally have greater rates of illicit discharges
- Instream sampling part of larger watershed management effort
- Complaint line

### Illicit Discharge Response

- Most common illicit discharges:
  - Concrete washout
  - carpet cleaning wastewater disposal
  - Automotive fluids
  - Fuel oil spills
- Single incidents typically asked to clean material if possible, NOV that requires education/training
- Several education brochures/fact sheets at <a href="http://www.clermontswcd.org/pollution-prevention/">http://www.clermontswcd.org/pollution-prevention/</a>

### For more information:

John McManus, Administrator Clermont Soil & Water Conservation District <a href="mailto:jmcmanus@clermontcountyohio.gov">jmcmanus@clermontcountyohio.gov</a> (513) 732-7075 ext. 3

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