



DUPAGECOUNTY

STORMWATER MANAGEMENT

DuPage County Shared Services

2020 IAFSM CONFERENCE, TINLEY PARK

DuPage County

DuPage County

- Located just west of Chicago/ Cook County
- Population 926,000 (2nd most populous in IL)
- 336 square miles



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STORMWATER MANAGEMENT

Who Are We?



Stormwater Management in DuPage County

- Countywide program established in 1989
- Guided by the Stormwater Management Planning Committee & Plan
- Enforce the Countywide Stormwater Management & Floodplain Ordinance
- Flood Control Facilities have a floodwater capacity of nearly 6 billion gallons

Programs

- Watershed Management
- Water Quality
- Floodplain Mapping
- Regulatory Services
- Flood Control Operations & Maintenance
- Shared Services



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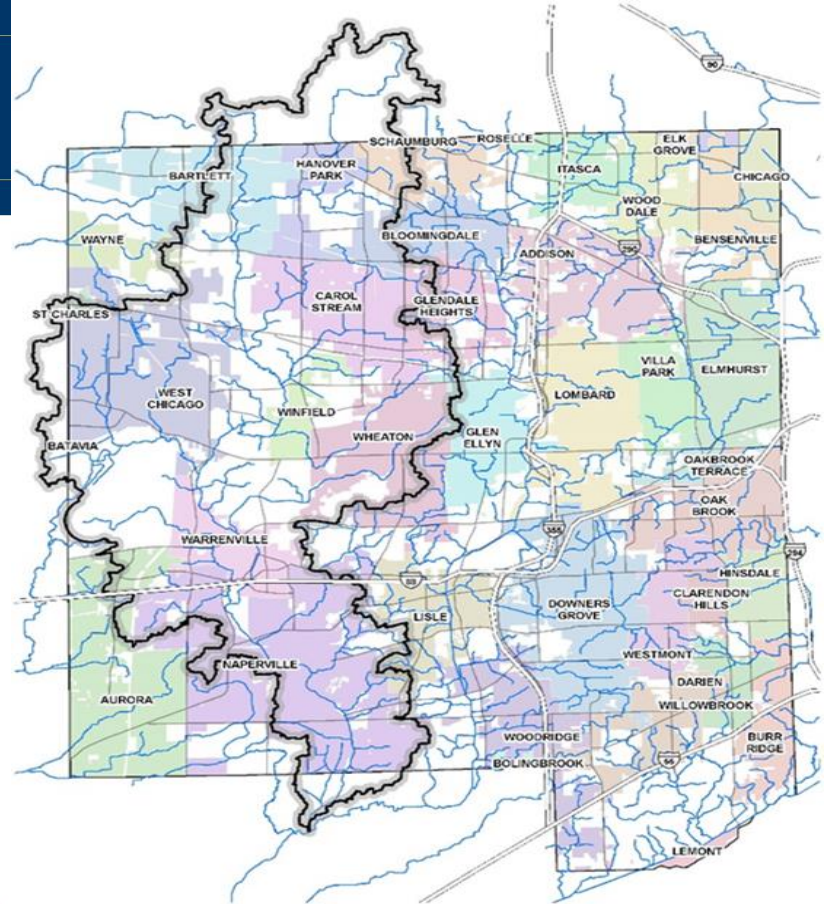
Shared Services Division

Program Focus

- Water Quality
- Spill Response
- Drainage
- Emergency & Scheduled Maintenance

Program Objectives

- Eliminate redundancy
- Link to watershed planning
- Encourages intergovernmental cooperation
- Cost and time savings



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Shared Services Division



NACo Award

- Nationally recognized in 2019
- National Association of Counties
- “Best in Category” for Community and Economic Development



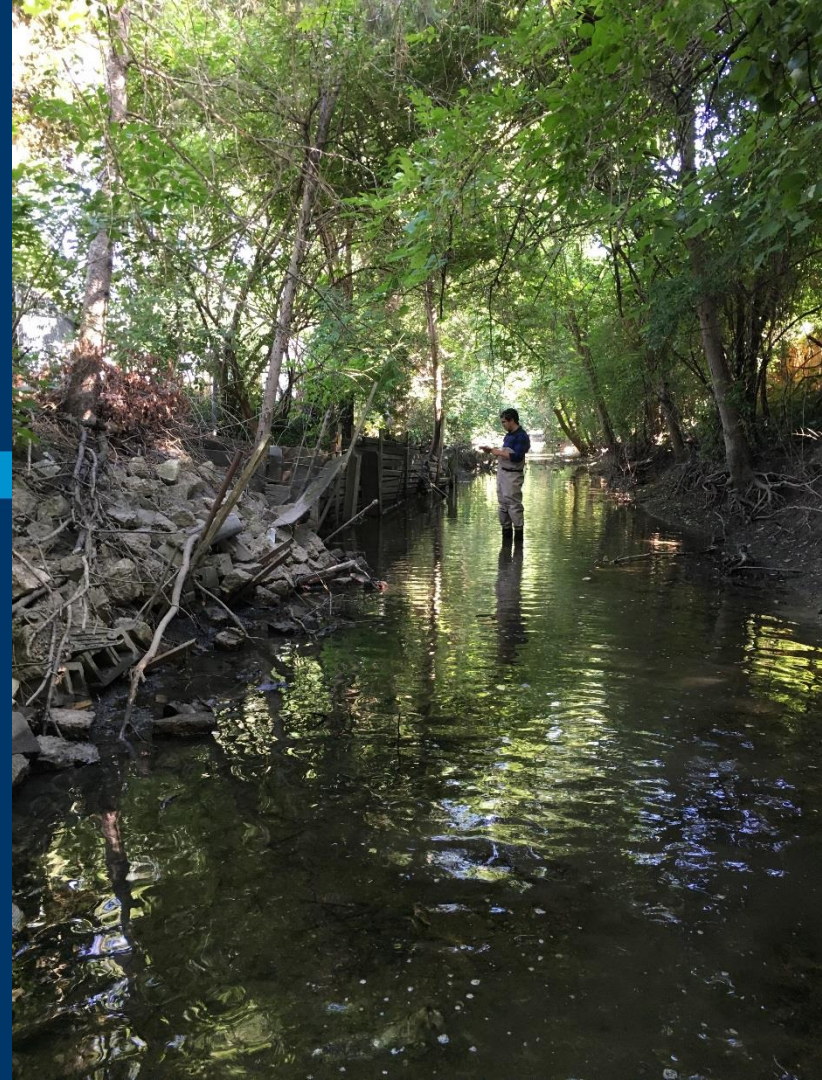


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Shared Services

Water Quality



Countywide NPDES Partnership

Over 40 MS4s in DuPage County

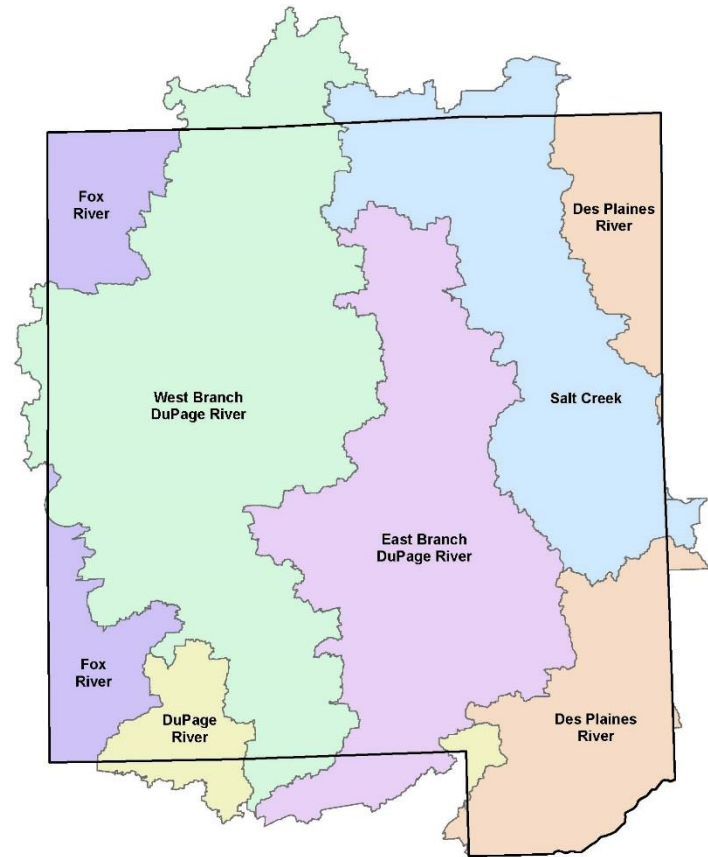
- Municipalities, Townships, County

Major Watersheds

- East Branch DuPage River
- West Branch DuPage River
- Salt Creek

Partial Watersheds

- Des Plaines River, Fox River, DuPage River mainstem



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Benefits



Eliminate Overlap & Redundancy

- Reducing the reporting burden saving time and money
- Eliminate overlap and redundancy
- Previous state had many duplicate efforts

Environmental Benefits

- Link to watershed planning – address watershed goals
- Cooperation on watershed efforts
- Increase public involvement

Minimum Control Measure #1

Education and Outreach

- Publications
- Community Events
- Social Media
- Classroom Education



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Minimum Control Measure #2

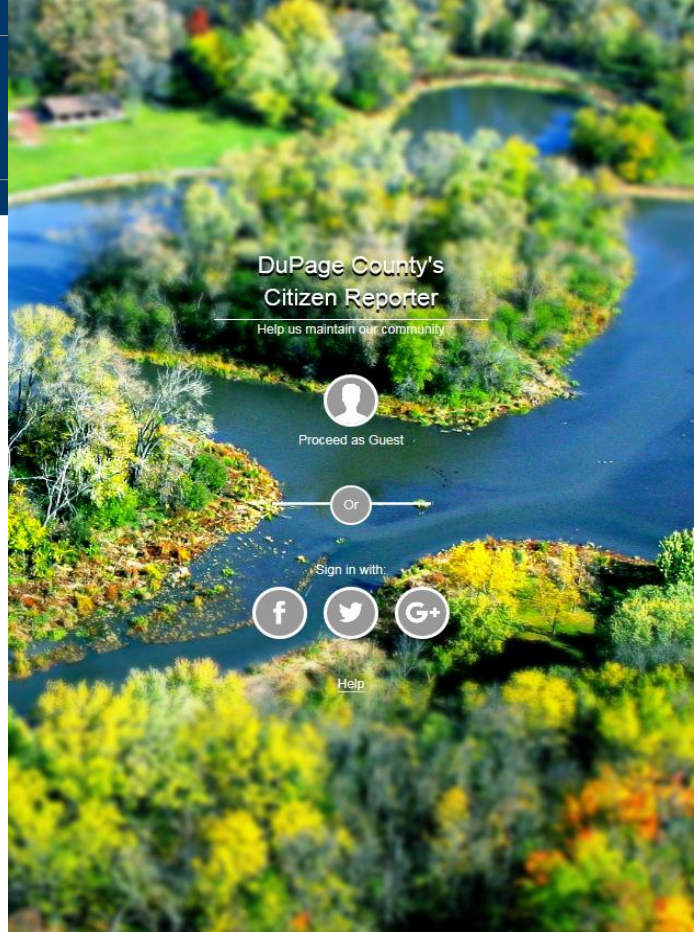
Public Involvement and Participation

- Stakeholder Meetings
- Watershed Workshops
- Public Meetings
- Volunteer Opportunities
- Environmental Justice Areas

DuPage County Citizen Reporter

- Waterway Reporter

<https://gis.dupageco.org/CitizenReporter/>



Minimum Control Measure #3



Illicit Discharge Detection and Elimination

- Comprehensive countywide storm sewer atlas
- Prioritization plan
- Dry weather screening schedule
- Visual screening and field testing
- Tracing
- Enforcement
- Education and training



Minimum Control Measure 4 & 5



Construction Site Runoff Control & Post Construction Best Management Practices

- Development driven measures
- Inspections before, during and after construction
- Provide guidance and resources

DuPage County Countywide Stormwater and Flood Plain Ordinance

- Outlines community waiver status
- Sets minimum regulatory thresholds



Minimum Control Measure #6

Pollution Prevention / Good Housekeeping

- Annual training for MS4 employees and contractors
- Guidance materials/ checklists
- Each MS4 responsible for day to day operations

Shared Services

- Utilize cost savings by utilizing County equipment, vehicles and personnel



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Monitoring

DuPage River Salt Creek Workgroup

- Bioassessment
- Water chemistry
- Sediment

Continuous Monitoring- Sondes

Countywide BMP Inventory

- Map in progress
- Modeling effectiveness of pollutant reduction efforts



Reporting

Annual Facility Inspection Reports

- Over 40 MS4s → Over 40 Reports
- Duplicate information or refer to County program
- One comprehensive report will be more efficient for MS4s and IEPA



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COUNTY

Watershed
Management

Water
Quality

Floodplain
Mapping

Regulatory
Services

Flood Operations
& Maintenance



STORMWATER MANAGEMENT

630-407-6700
stormwatergmt@dupageco.org

www.dupageco.org/swm

May 30, 2018

Illinois Environmental Protection Agency
Water Pollution Control
Compliance Assurance Section #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Re: AFIR for NPDES Phase II MS4 General Stormwater Permit Year 15
Third Notice of Intent Year 2
March 1, 2017 – March 1, 2018

Enclosed is the County of DuPage's Annual Facility Inspect Report (AFIR) for the National Pollutant Discharge Elimination System Phase II MS4 General Stormwater Permit ILR40 for permit year 15. This report includes activities that were undertaken and achieved for all of DuPage County. Thirty one municipalities and nine township highway districts have chosen to participate as cooperating permit holders in our countywide local qualifying effort for this permit program as requested by the IEPA Division of Water Pollution Control Permit Section to meet the six control measures of Public Education and Outreach, Public Participation/Involvement, Illicit Discharge Detection and Elimination, Construction Site Runoff Control, Post-Construction Runoff Control, and Pollution Prevention/Good Housekeeping for Municipal Operations.

The following list of county, municipalities, and township highway districts permit numbers are included as participating in the enclosed report of permit achievements for the 15th year of the permit term:

| Municipality | ILR40 MS4 Permit # |
|--------------------------|--------------------|
| DuPage County | 0502 |
| Village of Addison | 0227 |
| Village of Bartlett | 0286 |
| Village of Bensenville | 0292 |
| Village of Bloomingdale | 0295 |
| Village of Burr Ridge | 0304 |
| Village of Carol Stream | 0308 |
| City of Darien | 0180 |
| Village of Downers Grove | 0183 |
| Village of Glen Ellyn | 0199 |
| Village of Hanover Park | 0347 |
| Village of Hinsdale | 0355 |
| Village of Lemont | 0497 |
| Village of Lisle | 0376 |
| Village of Lombard | 0378 |
| City of Naperville | 0396 |
| City of Oakbrook Terrace | 0232 |

Jack T. Knuetper Building, 421 N. County Farm Road, Wheaton, Illinois 60187

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Shared Services

Spill Response



Spill Response



Background

- Extension of IDDE Program
- Tracing
- Lab testing
- Identify responsible parties
- IEPA reporting

Verify Cleanup

- Follow up inspections
- Testing



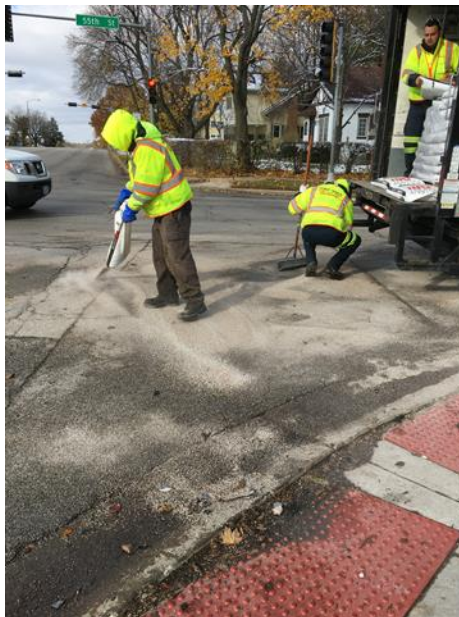
Spill Response

Containment Services

- 24-hour phone number
- Deploy booms or absorbents
- In stream / storm sewer
- Tracing

Additional assistance

- On call cleanup contract
- Lab testing



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STORMWATER MANAGEMENT

Shared Services Drainage Program



Drainage Program



Committed to Correcting Drainage Concerns

Services

- Technical Support
- Guidance
- Construction Improvements

Administration

- Historically under Public Works
- Effective December 1, 2018 (Fiscal Year 2019)

Objectives

- Address localized drainage throughout unincorporated DuPage County
- Complete small scale projects in-house (design & construction)
- Cost savings through use of in-house capabilities

Drainage Program



Who We Work With

Residential Inquiries

- Property Owner and/or their representative
- Neighborhood Representative (HOA or other)
- Concerned neighbor

Township Inquiries

- Township Highway Commissioner

Special Requests

- Staff Observations
- Shelved Projects
- Complaints to Elected Officials



STORMWATER MANAGEMENT

Drainage Program



Common Observations/ Concerns

New Construction Nearby

- New home is higher than existing
- Neighbor cleared all of the vegetation
- Sump Pump runs more than before
- Downspouts directed at surrounding properties
- Re-grading of property has affected neighbors

Drain Tile Failure

- Ponding was never there before
- Sink holes through property for no apparent reason

Maintenance Need

- Previously constructed infrastructure
- New Owner unaware of responsibilities
- Unauthorized Construction

Nuisance Ponding

- “I can’t use my backyard”
- “It wasn’t like this x years ago”

Drainage Program



Typical Solutions/ Next Steps

Due Diligence

- Research Easements/Deeds/ Previous Concerns
- Identify Jurisdiction
- Site Visit(s)

Property Owner Education

- Increased & Record rainfall
- What is an Easement?
- Property Maintenance
- Building & Zoning Enforcement

Additional Investigation

- Drainage Questionnaires
- Survey
- Infrastructure Inspection
- Storm Sewer Investigation
- Adversely affecting structures, septic, roadway, etc.
- Other Agency and/or DPC Department Meetings

Program Qualifiers

- DuPage County Infrastructure Maintenance
- Adversely affecting structures, septic, roadway, etc.
- Questionnaires determine need
- Shovel Ready Project previously designed

No Action & Close

- Common, Least Popular
- Offer Technical Advice if amicable & applicable

Drainage Program – What We See



Backyard Ponding



Sinkhole in CMP



Blocked Channel & Failing Bridge

Drainage Program



Pearl Avenue Drainage Project

Background

- Located north of North Avenue on Pearl Avenue, unincorporated Glendale Heights
- Failure of Existing Retaining Wall

Construction

- Commenced in November 2018
- Consultant Designed
- Constructed entirely in-house
- Provides relief to community through unobstructed passage of stormwater into existing system
- Cost Savings realized due to in-house efforts



Drainage Program

Pearl Avenue Drainage Project



Drainage Program



Mack Road Swale Reconstruction

Background

- Swale and associated storm sewer section in backyard easements
- Sediment buildup overtime buried storm sewer causing system malfunction

Construction

- History of swale maintenance under Drainage Program
- Removal of debris blockages
- Regrading swale to existing conditions for positive drainage into storm sewer

Maintenance

- Property owner responsibility to maintain swale and storm sewer in future
- Letters sent to residents to inform them of their obligations



Drainage Program



Thinking Ahead

Continue to proactively inspect and maintain infrastructure

Work with Other Departments/Agencies on New Construction

Educate the Public

Participate in Workgroups and Organizations committed to addressing similar concerns



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Shared Services

Emergency & Scheduled Maintenance



Shared Services



About the Program

Objectives

- Cost savings at Municipal and County levels
- Consolidate Services - maximum use of available staff & equipment
- Assist with addressing watershed concerns at local and regional levels
- Set example for other governmental agencies

Moving Forward

- Services available to all Public Agencies
 - Municipalities
 - Townships
 - Forest Preserve
 - DuPage County Departments



Shared Services



Specialty Services

- Storm Sewer, Catch Basin, Culvert Cleanout
- Storm Sewer Televising
- Spill Cleanup

Maintenance

- Vactor Services
- Heavy Lifting
- Stream Blockages

Cost Savings

- Equipment
- Personnel



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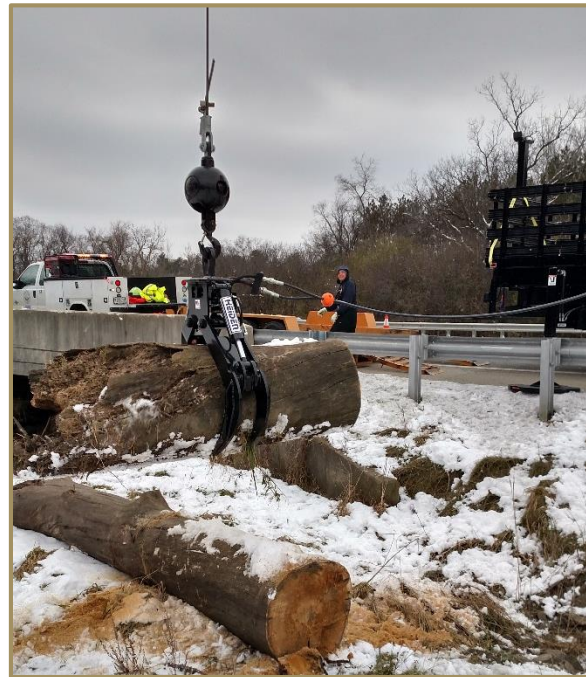


Equipment

- Vactor Truck
- Crane Truck
- Excavator
- Wood Chipper
- Televising Truck
- 1 Ton Dump Truck
- 6-Wheeler Dump Truck

Staff

- Professional Staff
- Maintenance Crew



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Thank You!



Questions?

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