
Appendix A

Cook County Stormwater Management Plan Questionnaire Drainage District Responses

A stormwater management questionnaire was developed by the Metropolitan Water Reclamation District of Greater Chicago to assess the current stormwater management framework in Cook County while developing the Cook County Stormwater Management Plan. The purpose of this questionnaire was to identify regulatory standards of the local governments in Cook County in regards to stormwater drainage and detention, floodplain management, soil erosion and sediment control, and stream and wetland protection. The questionnaire was sent to each of the municipalities, townships, and drainage districts. The questionnaire responses were collected in February 2006. The following summarizes the responses received from the drainage districts.

After each question, the number of Yes and No responses are given. Additional narrative responses are summarized below the question.

The drainage districts responding to the questionnaire include:

Calumet Union Drainage District
Lincoln Lansing Drainage District

Union Drainage District Number 1
Weller Creek Drainage District

GENERAL

- Please rank, in order of importance, the most critical elements of stormwater management as they pertain to your district (1=most important, 4=least)

Importance	1	2	3	4
Drainage Problems	2	2	0	0
Overbank Flooding	0	0	1	3
Erosion/Sedimentation	1	2	0	1
Water Quality	0	0	2	2
Other (please describe)				

Other Comments included:

- Calumet Union: Drainage problems of illegal dumping, overbank flooding limited to 2 locations, erosion a problem throughout, water quality in Harvey and Markham in particular
- Lincoln Lansing: Drainage problems awaiting for ditch cleaning for forest preserve ditch
- Union: Drainage problems, stream cleanout, remove blockages, erosion of streambank

-
2. Have any drainage, flooding, water quality, environmental or other water resource related studies (master plans, watershed plans, etc.) been prepared or are being prepared for your drainage district? **YES (3) NO (1)**

If yes, please describe the study briefly:

- Calumet Union: CUDD channel improvement plan NCRS
- Lincoln Lansing: South Suburban Mayor's and Manager's watershed study 2003
- Union: NPDES, attempt to test water in streams two times per year in two locations

3. Has an inventory of drainage systems (ditches, drainageways, on line detention facilities, storm sewers, etc.) been completed?
YES (3) NO (1)

Is the inventory updated on a regular basis?

YES (3) NO (0)

If yes, please describe the format of the inventory, frequency of updates, and date of last update:

- Calumet Union: On-going touring by commissioners
- Union: Maps updated as needed

4. Does your drainage district have a regular drainage facility maintenance program?
YES (4) NO (0)

5. What are your most recent capital improvement projects relating to drainage or stormwater?
- Calumet Union: No solo capital improvement projects
 - Lincoln Lansing: Repairs as needed and removal of debris from ditches and culverts along Torrence Avenue and Burnham Avenue and populated areas
 - Union: Stream stabilization project in 2005, stream cleaning in 2001, on-going updating of pumps and controls at reservoir basin #28 Duffy Road
 - Weller Creek: Storm water retention in Mount Prospect

6. What intergovernmental agreements does your drainage district have with other districts, communities or agencies relevant to water resources (examples: stormwater, floodplain, stream preservation, right-of-way acquisition, project cost sharing, land preservation, NPDES permits, Operations and Maintenance, NRCS, etc.)? Please list agreements:
- Calumet Union: Four party agreement with MWRD, Harvey, Markham and Thornton Township on a project by project basis
 - Lincoln Lansing: Lansing, Sauk and Lynwood
 - Union: Village of Deerfield and Lake County Forest Preserve District
 - Weller Creek: Mount Prospect, Arlington Heights, Des Plaines and Wheeling

Appendix A

Cook County Stormwater Management Plan Questionnaire Municipal Responses

A stormwater management questionnaire was developed by the Metropolitan Water Reclamation District of Greater Chicago to assess the current stormwater management framework in Cook County while developing the Cook County Stormwater Management Plan. The purpose of this questionnaire was to identify regulatory standards of the local governments in Cook County in regards to stormwater drainage and detention, floodplain management, soil erosion and sediment control, and stream and wetland protection. The questionnaire was sent to each of the municipalities, townships, and drainage districts. The questionnaire responses were collected in February 2006. The following summarizes the responses received from the municipalities.

After each question, the number of Yes and No responses are given. Additional narrative responses are summarized below the question. Not all municipalities answering the questionnaire answered each question.

The municipalities responding to the questionnaire include:

Alsip	Glenview	Oak Park
Arlington Heights	Glenwood	Olympia Fields
Bartlett	Harvey	Orland Park
Bellwood	Hazel Crest	Palatine
Bensenville	Hickory Hills	Palos Heights
Berwyn	Hillside	Palos Hills
Blue Island	Hinsdale	Palos Park
Broadview	Hoffman Estates	Park Forest
Buffalo Grove	Homewood	Park Ridge
Burbank	Indian Head Park	Prospect Heights
Burr Ridge	Inverness	Riverside
Calumet City	LaGrange Park	Rolling Meadows
Calumet Park	Lansing	Roselle
Chicago Heights	Lemont	Rosemont
Chicago Ridge	Lynwood	Sauk Village
Cicero	Lyons	Schaumburg
Country Club Hills	Matteson	Schiller Park
Countryside	Maywood	Skokie
Deerfield	Midlothian	South Barrington
Des Plaines	Morton Grove	South Holland
East Dundee	Mount Prospect	Streamwood
East Hazel Crest	New Lennox	Summit
Elk Grove Village	Niles	Tinley Park
Elmwood Park	Norridge	Westchester
Evanston	Northbrook	Western Springs

Flossmoor	Northfield	Wheeling
Forest Park	Northlake	Wilmette
Forest View	North Riverside	Winnetka
Franklin Park	Oak Forest	Worth
Glencoe	Oak Lawn	

GENERAL

1. Please rank, in order of importance, the most critical elements of stormwater management as they pertain to your community (1=most important, 4=least)

Importance	1	2	3	4
Drainage Problems	52	11	4	2
Overbank Flooding	14	24	8	21
Erosion/Sedimentation	4	24	29	12
Water Quality	5	14	16	34
Other (please describe)	2	1	2	0

Other Comments Included:

- Alsip and Hickory Hills: Detention
- Calumet Park and Cicero: Village is mostly combined sewers
- Des Plaines: Added street and rear yard storm sewers, enforced title 14 construction in floodplain, Title 10 Chapter 5 Erosion and Sedimentation
- Forest View: Canal regulated by dams Army Corps of Engineers
- Lynwood: Ditches overgrown and over regulation
- Midlothian: Drainage problems related to creeks, overbank flooding on Natalie Creek and Midlothian Creek
- Mount Prospect: Floodplain issues and development impacts
- Niles: Flooding
- Northbrook: Ensuring new developments comply
- Oak Park: No rivers or streams in Oak Park
- Palos Hills: Drainage problems on 88th Ave. at 96th St. and at 99th St., overbank flooding of the Lucas Ditch south of 111th St., sediment control from construction runoff, water quality public education
- Rolling Meadows: Several drainage improvements completed locally in 2003, Salt Creek and detention pond erosion
- Roselle: Issues ranked by prevalence of complaints
- Summit: Survey only addresses separate storm sewers
- Tinley Park: Drainage problems of local areas affecting property values, not nuisance flooding, overbank flooding in areas of floodplain, erosion control is generally addressed by ordinance, currently benchmarking river system for water quality

2. Have any drainage, flooding, water quality, environmental or other water resource related studies (master plans, watershed plans, etc.) been prepared or are being prepared for your community? **YES (47) NO (28)**

If yes, please describe the study briefly:

- Arlington Heights: Flood mitigation study by Village engineer Jim Masserelli

-
- Bensenville: CBBEL completed Addison Creek, Silver Creek and Willow Creek watershed as part of DuPage County's Upper Des Plaines River Tributaries Watershed Plan
 - Buffalo Grove: FEMA flood study, Buffalo Creek and White Pine Ditch Streambank Stabilization Study
 - Burr Ridge: Various studies conducted on DuPage County side, nothing in MWRD area
 - Calumet City: Floodplain Management plan in 12/2001
 - Calumet Park: Limited to 2000 FEMA FIRM map study
 - Chicago Heights: IDNR and Army Corps of Engineers in relation to tributary "B" of Thorn Creek
 - Countryside: City completed major flood control project and received a letter of map revision effective 2/9/06 by FEMA
 - Des Plaines: Stormwater management master plan 4/1986, Current stormwater management plan 7/2003
 - East Hazel Crest: Compliance with EPA NPDES permit
 - Elk Grove Village: Several small drainage reports have been prepared in response to flooding drainage problems
 - Evanston: Township is same geographic area as city, city has facility plan developed
 - Flossmoor: Butterfield Creek Stormwater etc.
 - Franklin Park: I-294 stormwater management plan
 - Glencoe: East Diversion ditch basin study, study and recommended solutions for 3 areas tributary to East diversion ditch in 2005, and North Dundee Drainage Study 2002
 - Glenview: Village wide detention study on-going
 - Hazel Crest: LOMA application and determination of BFE for possible development near 175th and Central Park
 - Hickory Hills: IDNR 200 acre feet retention, completed pond north of 87th St., IDNR and CCHD storm detention for Hickory Hills woods for combined 10 acre feet
 - Hinsdale: South of 55th St., DuPage County drainage
 - Homewood: Downey Manor flooding mitigation, merchant's park detention and flooding mitigation
 - Lansing: Drainage studies or flooding studies are done on a project basis, no master plans in place
 - Lemont: After 1996 floods a stormwater report of the flooded area was performed by CBBEL, most have been corrected
 - Midlothian: Army Corps hydrology study and flood relief concept for Natalie Creek
 - Morton Grove: Investigation of street flooding near Shermer and Dempster, 1992, location drainage study Lincoln Ave., 1988, combined sewer relief program, 1987, stormwater management plan, 1985, combined sewer operation plan, 1996
 - Mount Prospect: Des Plaines River study phases I and II by the US Army Corps of Engineers, and a comprehensive stormwater management report in 1990
 - Northbrook: We have a master stormwater plan
 - North Riverside: Cook County, county wide flood insurance rate map revisions in conjunction with FEMA
 - Oak Forest: Drainage study of Natalie subdivision to investigate overland flood routing problems
 - Orland Park: Several tributary stream flood studies to alleviate neighborhood flooding
 - Palatine: Palanois Park, Winston Park, Buffalo Creek and south central portions of village flooding study, 2001

-
- Palos Hills: A study was completed in the early eighties that resulted in a major ditching program and two major drainage projects, 86th Avenue and 81st Avenue, currently waiting to act on study completed for 88th Avenue at 99th Street and 96th Street
 - Palos Park: Local area studies to evaluate culvert sizing and Base Flood Elevations
 - Park Forest: Central park wetland restoration management plan, blocking existing drain tile system on a 4.5 acre site and return natural hydrology
 - Prospect Heights: McDonald Creek stabilization analysis
 - Riverside: Independent verification of properties within 100-year floodway and flood fringe as designated by FEMA FIRM and United States Army Corps of Engineers Lower Des Plaines study
 - Rolling Meadows: A 2002 stormwater management study by CBBEL which investigated 13 areas in the city that had experienced flooding or drainage problems and recommended solutions
 - Roselle: DuPage county watershed plans
 - Sauk Village: IDNR conducted a study of the Lincoln-Lansing Drainage Ditch that is the primary drain for Sauk Village, the ditch is undersized but current storm damage resulting from it may not fulfill cost/benefit criteria for a major reconstruction of the system within Sauk Village
 - Schiller Park: Crystal Creek flood control project by IDNR
 - Skokie: Stormwater relief in early 1980's
 - South Holland: Floodplain management plan 2005
 - Streamwood: South branch of Poplar Creek study in 1985, one foot contour map in 2003
 - Tinley Park: Many projects being completed as part of \$8.3 million bond issue, including floodplain reduction by elevation, new reservoirs and new outlet storm sewers, Village is 2 years ahead of NPDES schedule
 - Westchester: Addison Creek floodplain study by FEMA
 - Wheeling: LOMR on Buffalo Creek/village wide, village is awaiting approval by FEMA, creek bank stabilization Phase I stream assessment grant publication, 2005
 - Wilmette: North branch of the Chicago River watershed open space plan
3. Has an inventory of stormwater systems (detention facilities, storm sewers, localized flooding problems, etc.) been completed?
YES (57) NO (17)

Is the inventory updated on a regular basis?

YES (42) NO (11)

If yes, please describe the format of the inventory, frequency of updates, and date of last update:

- Bartlett: Semi-annual update to storm sewers and detention facilities
- Bensenville: Paper atlas with separate map for detention facilities, updates as necessary
- Broadview: Village maintains sewer atlas
- Buffalo Grove: Storm sewer utility map sets
- Burr Ridge: Currently working on inventory map, as part of NPDES Phase II permit using GIS
- Calumet Park: Ongoing process to log areas of frequent flooding and sewer backups
- Country Club Hills: Storm sewer atlas in AutoCAD, last updated in 2005

-
- Countryside: Storm sewers are cleaned and inspected as needed, atlases updated annually, flooding problems addressed on a case by case basis
 - Deerfield: Video taping of storm sewers performed yearly
 - Des Plaines: Inventoried in Microsoft Excel
 - East Hazel Crest: Mapped the ditches and outfalls 6/11/03
 - Elk Grove Village: Storm sewer only
 - Evanston: System shown in a GIS format, updated as needed, last update 12/05
 - Flossmoor: AutoCAD record maps
 - Forest Park: Localized flooding, 2002, storm sewer atlas, 2005
 - Forest View: Atlas as needed for revisions, 7/25/02
 - Franklin Park: Sewer atlas prepared every three years, last update 1997
 - Glencoe: Relatively accurate inventory on GIS database, updated several times a year
 - Glenview: List of detention systems restrictors information updated June 2002
 - Hazel Crest: A stormwater atlas updated as inventory increases or changes
 - Hillside: Annually 5/1/05
 - Hinsdale: Atlas sheets updated annually, 2005
 - Hoffman Estates: Maps and atlas, annual updates 2005
 - Indian Head Park: Storm sewer atlas originally prepared 1996
 - Inverness: Drainage map last revised 1994
 - Lansing: Inventory of detention facilities and storm sewers, Public Works tracks flooding problems, updates are project specific, last update 6/2005
 - Lemont: Storm sewer atlas, updates bi-annually
 - Lyons: Combined sewer system atlas update 2004
 - Midlothian: Sewer atlases (Maywood); In the process
 - Morton Grove: GIS ArcView storm sewers only, private detention facilities not shown
 - Mount Prospect: Compiled 2005 GIS, as needed
 - New Lenox: Storm sewer atlas originally prepared 1996
 - Northbrook: Updated from permit figures, periodically but not less than 5-years, in progress now
 - North Riverside: A survey of all our detention facilities, private and public, was done in 2003 by the Friends of the Chicago River
 - Northlake: Storm sewers are cleaned and inspected as needed, atlases updated annually, flooding problems addressed on a case by case basis
 - Oak Park: Sewer atlas are updated as needed, approximately every year
 - Orland Park: Detention facilities, location and parcel size, updated annually 2/28/05, in progress
 - Palos Hills: GIS not complete
 - Palos Park: MS4 map, ongoing updates
 - Park Ridge: GIS database
 - Prospect Heights: Residential drainage compliant database updated as calls are received
 - Riverside: Riverside is CSO community with no stormwater system eligible for permitting
 - Rolling Meadows: Mapping inventory updated in 2004 in approximately 50% of City covered by GIS database, previous updates in 1990's
 - Roselle: In progress, developing storm/sewer facilities atlas
 - Schaumburg: Updated annually as part of utility GIS program

-
- South Holland: Detention facilities, water tributaries and ditches inventoried two times each year, last update was 4/12/05
 - Streamwood: Paper storm sewer atlases
 - Summit: Storm sewer atlases
 - Tinley Park: GIS format updated in 2005
 - Wheeling: Storm sewer maps/atlas, inspection of detention facilities completed 2005
 - Wilmette: Informal data collection, village atlas for storm sewers
 - Winnetka: Storm sewer atlas that is updated
4. Does your community have a regular stormwater systems maintenance program?
YES (57) NO (16)
5. What are your most recent capital improvement projects relating to stormwater?
- Alsip: Installation of storm sewers in the Hazel Green Subdivision
 - Bartlett: Upgrades to existing storm or detention systems
 - Bensenville: Under street detention in pipes for Main Street construction
 - Blue Island: The city is mostly combined sewer, new subdivision proposed with storm sewer and detention pond
 - Broadview: Street improvement projects that include repair or replacement of drainage structures, and deteriorated sections of storm sewer
 - Buffalo Grove: Streambank stabilization in Lake County areas of village
 - Burr Ridge: Detention basin improvements, roadside pipe/storm sewer installations, new subdivisions
 - Calumet City: Sewer improvements, upgrade Little Calumet levee, Thornton Quarry reservoir, cleaning of ditches
 - Calumet Park: Sewer jetting, cleaning repairs
 - Chicago Heights: Detention pond for Saratoga Farms, mowing and clearing tributary "B" of Thorn Creek, 1999 to 2005
 - Country Club Hills: Maycrest Lake wetland expansion and creation of recreation area, MFT project that included replacement of 54" arch pipe
 - Countryside: Major flood control project which included enclosing floodway ditch into twin box culverts
 - Deerfield: Stratford Rock, new storm mechanical and utility structures, upsize and to increase capacity with new storm sewer service stubs
 - Des Plaines: Area four storm sewer project
 - Elk Grove Village: Storm sewer annual drainage improvement program, storm sewers installed in response to standing water problems
 - Elmwood Park: Installation of concrete vaults under streets used to capture excess stormwater runoff
 - Evanston: Ongoing implementation of facility plan, Colfax/Grant storm sewer project
 - Flossmoor: Completed Phase I storm sewer rehabilitation and relining budgeted for FY 07, Phase II storm sewer rehabilitation preliminary engineering, budgeted for FY 08 Phase II storm sewer rehabilitation construction
 - Forest Park: Street reconstruction and water main replacement with sanitary/storm sewer spot repairs to alleviate infiltration
 - Forest View: Installation of 42" outfall storm sewer, 2003
 - Franklin Park: Copenhagen Pond, I-294 stormwater management, Scott Street sewer inspection, alley paving program, Grand avenue underpass

-
- Glencoe: 60" diameter relief storm sewer, 2005, 36" diameter outfall replacement and energy dissipation structure, 2004, outfall improvement as part of street program
 - Glenview: New storm sewers in unsewered areas, storm sewer lining, annual storm sewer point repairs program
 - Glenwood: NPDES
 - Harvey: Sewer cleaning
 - Hazel Crest: Creek stabilization, and purchase of \$120,000 Vactor truck
 - Hickory Hills: Retention pond, 200 acre-feet, north of 87th Street, detention pond expansion at 9400 south 88th Avenue, developer detention at 9400 south Keen Avenue
 - Hillside: Pipe replacement
 - Hinsdale: Sewer repair as part of road programs
 - Hoffman Estates: Replace failing corrugated metal pipes with new storm sewers
 - Homewood: Installed storm relief sewers, underground detention, and detention basins
 - Indian Head Park: Storm sewer culvert replacement, catch basin cleaning, drainage way cleaning and outfall restabilization
 - Inverness: Replacement of deteriorated road culvert pipes, storm sewers in new developments
 - LaGrange Park: Storm sewer separation projects
 - Lansing: Separate storm and sanitary sewers, 5 new detention ponds, Waterford Estates, Public Works facility, Oakwood Estates and Hills of Lansing
 - Lemont: The village has an ongoing program separating the storm sewer from the combined sewer
 - Lynwood: No funds for big projects
 - Lyons: Catch basin improvement program, annual, catch basin cleaning, annual, combined sewer system cleaning, annual
 - Maywood: Yearly curb and gutter replacement
 - Midlothian: Cleaning of storm sewers, improvement of drainage on many unimproved streets, storm sewer atlas, clean and restore flow line of Natalie Creek
 - Morton Grove: Cured-in-place pipe lining
 - Mount Prospect: Creek bank channel stabilization, storm sewer/combined sewer improvements, storm sewer backwater control valves, detention pond dredging, and bank stabilization
 - New Lenox: Storm sewer culvert replacement, catch basin cleaning, drainage way cleaning and outfall restabilization
 - Niles: In-line detention storage, oversized storm sewers
 - Northbrook: Drain relief sewer and online storage, 5-year project is now 50% complete, "cattle pass" overflow sewer, flap grates on sewer outfalls, Northbrook East detention basin
 - Northfield: Linder/Orchard Street sewer improvements, Central Avenue rebuild and associated sewer improvements, West Frontage Road improvements
 - Northlake: Creek bank restoration projects along Addison Creek
 - North Riverside: Catch basin adjustment, reconstruction and replacement and storm lateral replacement in conjunction with paving improvements
 - Oak Forest: Detention pond rehabilitation
 - Oak Lawn: Repair and adjustments to storm sewers, manholes and basins, installations of rear lot drainage systems
 - Oak Park: Sewer main replacement yearly with CIP. Combined sewer system is 80 to 100 years old, has annual replacements of deteriorated mains typically involves surrounding drainage structure

-
- Orland Park: Stormwater flooding relief, construction of stormwater pipes for flood protection
 - Palatine: Sewer improvements and replacements, land acquisition for detention basin, curb and gutter replacement
 - Palos Hills: 88th Avenue at 107th Street, CCHD/CPH storm drainage, 86th and 87th Streets at 102nd Street, storm drainage and retention, 81st Avenue at 98th Street, storm drainage conveyance and major ditching throughout city
 - Palos Park: Culvert replacements
 - Park Forest: Storm sewer inlet, manhole, catch basin reconstruction and storm sewer pipe rehabilitation
 - Park Ridge: City of Park Ridge new reservoir completed 2005
 - Prospect Heights: Storm sewer rodding, installation of storm sewer to reroute flows, annual road program includes extensive regrading and pipe networks to improve drainage
 - Rolling Meadows: Phases I and II of city's stormwater improvements, 2002 and 2003, \$2.3 million, Salt Creek stream bank stabilization Phase II, 2002 and 2003, \$360,000, partial funding, of \$200,000, by IEPA 319 section program
 - Roselle: Heathergreen pond detention facility construction, 2004, Turn pond silt removal, 2004
 - Rosemont: Willow Higgins Creek channel improvement project
 - Sauk Village: Rehabilitation of the Lincoln-Lansing drainage ditch, grading and shaping, tree removal, and storm sewer cleaning, 2004
 - Schaumburg: 2001 spectrum by-pass storm sewer, storm sewer installed to improve conveyance of storm water
 - Schiller Park: Crystal creek projects with IDNR (Schiller Park);
 - Skokie: Howard Street improvement with new storm sewers and curb and gutter flow regulators, stormwater detention
 - South Holland: Roadway reconstruction includes culvert replacement at Van Dam Road, Prince Drive and Cottage Grove as well as improved stormwater system on these roads
 - Streamwood: Replacement of existing storm sewers, regrade detention area shore line, high resolution 1-foot contour map
 - Tinley Park: New detention basins, updated storm sewers systems, channel maintenance, storm water quality
 - Wheeling: William Rogers memorial diversion channel
 - Wilmette: Lining, replacement, point repairs
 - Winnetka: Improving storm drainage sewers west of Hibbard adjacent to golf course, rehabilitation of existing storm sewer outfalls to lake
6. What intergovernmental agreements does your community have with other agencies relevant to water resources (examples: stormwater, floodplain, stream preservation, right-of-way acquisition, project cost sharing, land preservation, NPDES permits, Operations and Maintenance, NRCS, etc.)? Please list agreements:
- Alsip: NPDES ordinances, or mandates by IEPA
 - Bartlett: Project basis only, no agreement in place
 - Bensenville: We are a partial waiver community with DuPage County Stormwater and Floodplain ordinance
 - Buffalo Grove: Buffalo Creek reservoir agreement, involving Buffalo Grove, MWRD and Lake County Forest Preserve District

-
- Burr Ridge: Partial waiver community with DuPage County permitting
 - Calumet City: Most water comes from City of Hammond
 - Calumet Park: NPDES permit
 - Chicago Heights: FEMA Floodplain Management ordinance
 - Country Club Hills: NPDES Phase II stormwater permit for city's storm sewer system
 - Deerfield: SMC, NPDES
 - Des Plaines: Cook County Forest Preserve District
 - East Hazel Crest: Agreement with IHWTA since all storm water dumps into their system
 - Flossmoor: Butterfield Creek steering committee, Will South Cook Soil Conservation, NPDES
 - Franklin Park: Crystal Creek Improvements, between IDNR, Schiller Park and Franklin Park
 - Glencoe: General Permit – NPDES Phase II
 - Glenview: Floodplain under NFIP with FEMA and IDNR, NPDES Phase II with IEPA
 - Hazel Crest: Village of Homewood allowed connect to Hazel Crest storm sewer
 - Hickory Hills: IDNR – detention pond O&M, North 87th Street, NPDES Permit ILR400351
 - Hinsdale: DuPage County Stormwater Management Ordinance, NPDES permits
 - Hoffman Estates: NPDES permit with IEPA
 - Homewood: Homewood Flossmoor Park District
 - Lansing: NPDES permits
 - Lyons: NPDES Phase II No. ILM580004
 - Midlothian: NPDES permit with state, manage floodplain issues consistent with FEMA and state floodplain regulations
 - Niles: NPDES No. ILM580035
 - Northlake: Intergovernmental agreement with IDNR-OWR for conveyance floodway through Northlake for Addison Creek
 - Oak Park: None, MWRD handles NPDES permits since Oak Park is a combined sewer system
 - Palos Hills: NPDES permit and floodplain
 - Park Forest: Thorn Creek ecosystem partnership and related grants and programs, incorporation of Will County Stormwater Management Ordinance into ours
 - Rolling Meadows: Rolling Meadows Park District for Salt Creek maintenance, Village of Palatine pending agreement for storm sewer connection to Rolling Meadows storm sewer
 - Roselle: Participate with DuPage County in joint NPDES permit administration and various projects
 - Sauk Village: NPDES permit No. ILR400441
 - Schaumburg: NPDES Phase II permit
 - Schiller Park: IDNR and Franklin Park Crystal Creek Projects
 - Skokie: Evanston for water purchase
 - South Holland: Work with SSMMA
 - Tinley Park: Delegated permit authority by IDNR for floodplain work
 - Wilmette: IEPA water pollution control permit 1993-HB-2417, NPDES combined sewer overflow IL0069981, ILM580012, ILR400473 – Stormwater – M54

7. Does your community regulate development activities?

YES (85) NO (2)

STORMWATER

8. Does your community have a stormwater and/or drainage ordinance?
YES (67) NO (20)

If the municipality answered no, they proceeded to the general floodplain section, or question 18

9. Does your community regulate:
- | | |
|---------------|-------------------------|
| Runoff Volume | YES (54) NO (13) |
| Runoff Rates | YES (61) NO (6) |
| Water Quality | YES (36) NO (29) |

10. Must existing depressional storage be preserved?
YES (43) NO (21)

11. Is there an acreage threshold below which stormwater detention requirements do not apply? **YES(45) NO(19)**

If yes, please list the minimum sizes below for each category:

Residential:

MWRD (4)
 Less than 4 contiguous lots (1)
 40,000 ft² (1)
 1 acre (7)
 2 acres (3)
 3 acres (4)
 5 acres (10)
 10 acres (10)

Commercial/Industrial:

MWRD (3)
 At all times (3)
 40,000 ft² (1) (Maywood)
 1/3 acre (1) (Cicero)
 1 acre (11)
 2 acres (1) (Lyons)
 2.5 acres (1) (Rolling Meadows)
 3 acres (3)
 5 acres (9)
 10 acres (1) (Franklin Park)

Other (please specify):

MWRD (3)
 Fees for less than 3 acres (1) (Olympia Fields)
 Fees for less than 5 acres (1) (Palatine)
 One or two lots (1) (Skokie)
 20,000 ft² (1) (Calumet City)
 40,000 ft² (1) (Maywood)

1/3 acre for multi family **(1)** (Cicero)
 1 acre for multi family **(1)** (Bartlett)
 3 acres for multi family **(2)**
 5 acres **(2)**
 10 acres **(1)** (Country Club Hills)

12. What methodology for detention volume determination is used (Modified Rational Method, Hydrograph Routing, Nomograph, Other)?

Modified Rational Method **(36)**
 Modified Rational Method for less than 5 acres **(1)** (Inverness)
 Modified Rational Method for less than 10 acres **(2)**
 Rational Method **(5)**
 Rational Method for greater than 10 acres **(2)**
 Hydrograph Routing **(11)**
 Hydrograph Routing for greater than 10 acres **(4)**
 HEC-1 or TR-20 **(3)**
 TR-55 **(3)**
 Illinois Bulletin 70 Routing Table **(1)** (North Riverside)
 (inches)= $V100-Q_{rd}=C*100t_d-0.15*3t_d$ **(1)** (Forest Park)

13. What is the allowable release rate for the 100-year event (3-year, 0.1 cfs/acre, 0.15 cfs/acre, other)?

0.15 cfs/acre **(25)**
 0.10 cfs/acre **(5)**
 0.16 cfs/acre **(1)** (Tinley Park)
 0.20 cfs/acre **(1)** (Mount Prospect)
 0.25 cfs/acre **(1)** (Northfield)
 0.042 cfs/acre **(1)** (Streamwood)
 2-year **(4)**
 3-year **(21)**
 MWRD **(6)**
 Volume regulated rather than rate **(1)** (Riverside)
 Unknown **(1)** (Oak Lawn)

14. Do you regulate the 2-year storm event or other low-flow?
YES (17) NO (47)

If yes, with what requirement?
 0.04 cfs/acre **(14)**
 10 year storm to detention basins **(1)** (Des Plaines)
 No increase in flow to neighboring properties under any TR **(1)** (Riverside)
 undeveloped **(1)** (Skokie)

15. What rainfall data source is required? (check one)
 TP40 **(17)** Bulletin 70 **(41)** Not Specified **(3)**

Other comments included:

- Palatine: 100-year U.S. Weather Bureau
- Riverside: IBLD

- Skokie: Illinois State Water Survey
- Oak Lawn: unknown

16. Is detention allowed in the floodway, flood fringe, wetlands and/or online in the floodplain? Please explain.

Floodway **(18)**

Flood Fringe **(33)**

Wetlands **(21)**

Online in the Floodplain **(22)**

Yes **(17)**

No **(22)**

Not Applicable **(3)**

Other comments included:

- Bellwood: In floodway and flood fringe with compensatory storage
- Bensenville: Runoff stored under all stream flow conditions
- Calumet City: Yes, with approval from village
- Calumet Park: All allowed subject to FEMA, IDNR-OWR and US Army Corps of Engineers
- East Dundee: All allowed providing watershed benefit
- Franklin Park: In flood fringe in addition to compensatory storage
- Glenview: No, within floodplain compensatory storage volume requirements may be allowed
- Homewood: In flood fringe, wetlands and online with compensatory storage of 1.10:1
- Inverness: In flood fringe with compensatory storage and in wetlands with Corps of Engineers approval, generally filling and floodplain areas in excess of 100 cubic yards is not allowed
- Lemont: Yes, using proper BMPs
- Midlothian: Yes, subject to FEMA, IDNR-OWR and US Army Corps of Engineers regulations
- Northfield: In floodway and flood fringe with detention occupying the bottom of the basin
- Orland Park: In flood fringe, wetlands and online above BFE with backwater analysis and compensatory storage at 1.50:1
- Palatine: Yes, with compensatory storage of 110%
- South Barrington: Yes, but strongly discouraged
- Tinley Park: Yes, compensatory storage required above required detention, if submerged outlet volume based on zero release unless high water elevation is greater than BFE

17. Please describe other unique regulations in your community's ordinance that were not identified above:

- Bensenville: DuPage County Ordinance
- Berwyn: Sump pumps for footing and foundation drains are to be connected to combined and storm sewers
- Burr Ridge: Minimum 2" control pipe diameter
- Calumet City: Threshold limits for new and existing construction
- Des Plaines: Single family lots cannot drain at 1% grade to right-of-way, must construct rear yard storm sewer and connect to public storm sewer

- Glenview: Prior to start, site development permit required, secured site with erosion control means in place
- Homewood: Fee in lieu of detention
- Lansing: Minimum 3" diameter restrictor
- Lemont: Required detention volume is 125% of calculated volume
- Matteson: Fee in lieu of storage for less than 3 acre sites
- Midlothian: Compensatory storage in floodplain 1.5 times the volume lost due to fill or structure
- Morton Grove: 3" minimum restrictor is required, developments are allowed to use release rate from 3" restrictor for calculating detention volume
- Mount Prospect: Runoff coefficients, impervious surface equals 0.95 and pervious equals 0.50
- Northbrook: Impervious C factor is 0.95, pervious C factor is 0.50, required detention volume is increased by 15%
- Northfield: When net impervious exceeds 100 square feet, detention must be provided, fee can be paid in lieu of detention
- Northlake: Follows NIPC model ordinance
- Palos Hills: All commercial development requires detention
- Park Forest: Stormwater facilities must be functional before building permits are issued, residential and commercial
- Park Ridge: Fee in lieu of detention when runoff rate and detention requirements cannot be provided
- Rolling Meadows: City follows MWRD's requirements, with the exception of a development in a "flood prone area" where city is more stringent, fee levied to fund
- Roselle: See DuPage County Stormwater Ordinance
- Streamwood: All new developments must install water quality structures
- Wilmette: Grading ordinance

FLOODPLAIN

18. Does your community have a floodplain management ordinance?

YES (82) NO (5)

If the municipality answered no, they proceeded to the water quality section, or question 28

19. Has your community adopted the minimum requirement from the "Model Floodplain Ordinance for Communities Within Northeastern Illinois" recommended by IDNR-OWR?

YES (75) NO (6)

20. Does your community participate in the Community Rating System (CRS) with the National Flood Insurance Program (NFIP)?

YES (19) NO (62)

If yes, what is your rating? 5 (1) 6 (1) 7 (7) 8 (4)

If no, why not?

- Bartlett: No floodplain
- Bensenville: Staffing
- Burr Ridge: Very few homes require flood insurance

- Elk Grove Village: Too much administrative paperwork
- Franklin Park: Awaiting entry
- Glencoe: Small percentage of homes in floodplain
- Glenview: In process
- Inverness: Village does not have enough staff to maintain a CRS
- Lemont: Not well publicized
- Northfield: Beginning the process to participate this February
- Riverside: Under implementation
- Streamwood: No current flood insurance policies
- Summit: Not well publicized
- Winnetka: Have not been able to dedicate adequate time

Are you interested in learning more about the CRS Program?

YES (27) NO (15)

If MWRD hosted a seminar on the CRS Program, would you be interested in attending?

YES (35) NO (12)

21. Which of the following are addressed in the purpose statement of your floodplain ordinance? (check all that apply)

Protection of:

- Aesthetics **(44)**
- Aquatic Habitat **(47)**
- Hydrologic Functions **(77)**
- Recreation **(38)**
- Water Quality **(59)**

22. Is your list of Appropriate Uses for the floodway more restrictive than IDNR-OWR?

YES (12) NO (69)

23. Are onstream impoundments discouraged unless a public benefit is shown?

YES (57) NO (21)

24. Is channel modification discouraged unless there are no practical alternatives?

YES (62) NO (18)

25. For the following areas, please indicate whether compensatory storage is required and specify the safety factor (1.5:1, etc.).

Floodplain **YES (78) NO (3)**

- If yes, safety factor 1.0:1 **(21)**
- 1.1:1 **(7)**
- 1.12:1 to 1.5:1 **(1)** (*Northfield*)
- 1.2:1 **(1)** (*Deerfield*)
- 1.25:1 **(3)**
- 1.5:1 **(40)**
- Per Regulatory Authority **(1)** (*Niles*)
- Per IDNR **(1)** (*Arlington Heights*)

Depressional Storage **YES (24) NO (52)**
 If yes, safety factor 1.0:1 **(13)**
 1.1:1 **(2)**
 1.5:1 **(6)**
 Per Regulatory Authority **(1)** (*Niles*)
 Per IDNR **(1)** (*Arlington Heights*)

Wetlands **YES (22) NO (53)**
 If yes, safety factor 1.0:1 **(6)**
 1.1:1 **(2)**
 1.5:1 **(6)**
 1.5 or 3 or 5:1 **(1)** (*Deerfield*)
 By others if required **(2)**
 Per US Army Corps of Engineers **(2)**
 Per Regulatory Authority **(1)** (*Niles*)
 Per IDNR **(1)** (*Arlington Heights*)

26. Do you apply any other standards that are above the minimum required by IDNR-OWR or FEMA?

YES (14) NO (64)

If yes, what are they?

- Bellwood: Lowest floor two feet above BFE
- Buffalo Grove: BFE plus 2.5 feet versus BFE plus one foot for building protection elevation
- Des Plaines: Title 14 of City Code
- Glenview: One foot above BFE and no development in floodway
- Hinsdale: DuPage County
- Hoffman Estates: US Army Corps of Engineers for wetlands
- Mount Prospect: Freeboard, foundation protection, protection of floodplain storage capacity Northfield: One foot above 100 year BFE
- Northlake: Follows NIPC Model Ordinance
- Oak Lawn: BFE equals two feet
- Prospect Heights: Flood protection elevation is 2.5 feet above BFE
- Schiller Park: Flood protection elevation is one foot above BFE
- Streamwood: Lowest floor two feet above BFE
- Wheeling: 1.5 compensatory storage

27. Do you apply floodplain management standards to non-regulatory streams and floodplain (those not identified on the FEMA floodplain maps)?

YES (26) NO (53)

If yes, how do you determine when the standards apply?

- All streams **(2)**
- Development draining more than one square mile **(9)**
- Calumet City: Determine BFE for site
- Flossmoor: Each individual case
- Homewood: When calculated BFE is less than FIRM BFE
- Inverness: For development areas with historical flooding
- Matteson: Use calculated BFE

- Northlake: If ground elevation is close to floodplain elevation, then floodplain management standards apply
- Oak Lawn: BFE equals three feet above historical flood record elevation
- Orland Park: Flood History
- Palatine: BFE of flood of record by Village Engineer
- Park Ridge: No floodways, when no BFE by FEMA, and when draining more than one square mile
- Roselle: Project specific, see article 10 of DuPage County Stormwater and Floodplain Management Ordinance
- Streamwood: Best available data, USGS or local study
- Tinley Park: Sound engineering judgment
- Wheeling: If within a special flood hazard area, those regulations apply

WATER QUALITY

28. Does your community have an NPDES Phase II Permit?
YES (57) NO (12)

29. Do you have a community outreach program for educating residents about water quality?
YES (55) NO (28)

If yes, please describe program:

- Pamphlets/Brochures/Flyers **(14)**
- Newsletter **(33)**
- Local Cable TV Channel **(3)**
- Meetings/Presentations **(8)**
- Website **(24)**
- Part of DuPage County Program **(4)**
- No, but under development **(5)**
- Glencoe: Earth Day activities, website and newsletter
- Park Forest: Annual water quality reports
- Streamwood: Storm sewer stenciling, newsletter, signs, creek cleanup
- Wilmette: New resident reception, listening post, communicator

30. Does your community regulate private or commercial lawn care?
YES (14) NO (70)

If yes, please explain regulation: Sprinkling Restrictions **(13)**
 Height of weeds/grass **(1)** (Wheeling)

31. Is armoring of channels and banks discouraged unless vegetation and gradual bank sloping are inadequate to prevent erosion?
YES (51) NO (31)

SOIL EROSION AND SEDIMENT CONTROL

32. Does your community enforce a soil erosion and sediment control ordinance?
YES (64) NO (22)

If the municipality answered no, they proceeded to the stream and wetland management section, or question 37.

33. Is there an acreage threshold below which soil erosion and sediment control standards do not apply?

YES (16) NO (49)

If yes, please specify the minimum disturbance area

- 2,500 ft² (1) (Hinsdale)
- 5,000 ft² (2)
- 10,000 ft² (2) (Country Club Hills)
- 1 acre (10)
- When in a floodway (1) (Worth)
- 1 acre or more, or any lot required by the director (1) (Elk Grove Village)

34. Does your community have a list of soil erosion and sediment control design standards?

YES (48) NO (17)

35. Are soil erosion and sediment control practices maintained throughout the duration of construction?

YES (65) NO (1) (East Hazel Crest)

36. Does the ordinance specify critical stages at which inspection will be performed?

YES (19) NO (46)

If yes, please list stage:

- Bensenville: Prior to excavation and at final grading
- Country Club Hills: Before, during, and after construction
- Deerfield: Per Lake County SMC
- Des Plaines: Stripping, rough grading, final grading
- Glenview: Before, during and after development
- Hazel Crest: Before, during and after development
- Hoffman Estates: All the time
- Oak Lawn: Before, during and after construction
- Palatine: Stripping, rough grading, final grading and final inspection
- Rolling Meadows: Rough grading and final inspection
- Schaumburg: Rough grading, drainage completion and final landscaping
- South Barrington: Drainage installation, rough and final grading
- South Holland: Same as NPDES
- Burr Ridge: Random site inspections

STREAM AND WETLAND MANAGEMENT

37. Does your community have stream and wetland protection regulations?

YES (35) NO (48)

If the municipality answered no, they proceeded to the Permit Review and Enforcement section, or question 41.

38. Are modifications to wetlands, stream corridors and lakes prohibited?

YES (13) NO (29)

If yes, please describe what type of modifications are prohibited (may include filling, draining, excavating, damming, impoundment and vegetation removal).

- All (6)
- US Army Corps of Engineers Permit required (2)
- Calumet Park: Preconstruction conditions met within 48 hours of completion, vegetation removal, temporary crossings, draining may be temporarily improved
- Hazel Crest: Unapproved modifications are not allowed, any modifications in accordance with the village's floodplain ordinance are allowed
- Homewood: All unapproved unless modifications maintain or improve wetland
- Midlothian: Filling, draining, excavating, damming, and impoundment
- Palos Heights: Filling
- Rolling Meadows: Within floodway and within a 25 feet of the channel, a natural vegetation strip needs to be preserved
- South Barrington: All prohibited unless conditional use is granted
- South Holland: Filling, draining, damming and excavating are regulated
- Winnetka: Must comply with State, Federal, DNR and US Army Corps of Engineers

39. Is development within buffers adjacent to wetlands, stream corridors and lakes controlled?

YES (25) NO (18)

If yes, please specify buffers or setbacks allowed from the following:

Wetlands

15' to 50'	(1) (East Dundee)
25'	(5)
30'	(1) (Lynwood)
30' or 100'	(3)
50'	(4)
75'	(1) (Flossmoor)
100'	(3)
Case by Case	(1) (Wheeling)
Has not come up	(1) (Des Plaines)
Not Applicable	(3)

Stream Corridors

25'	(4)
30'	(6)
50'	(1) (Orland Park)
75'	(1) (Flossmoor)
Case by Case	(1) (Wheeling)
Not Applicable	(3)

Other comments included:

- Des Plaines: No development in floodway is allowed
- Lansing: Five foot wall by river and ponds with flood gate
- Roselle: Floodplain or riparian area
- Winnetka: Floodway portion of ordinance

Lakes

30'	(5)
Case by Case	(1) (Wheeling)
Not Applicable	(6)

Other comments included:

- Orland Park: Fifty foot natural and 25 foot artificial
- Winnetka: US Army Corps of Engineers Permit

40. Are mitigation measures required for approved wetland and waterbody modifications?
YES (20) NO (21)

If yes, please describe the mitigation requirements including mitigation ratio, monitoring requirements, etc.:

- US Army Corps of Engineers (6)
- Per IDNR (2)
- 1:1 mitigation ratio (2)
- Bartlett: DuPage County ordinance
- Bensenville: 3:1 critical wetlands, 1.5:1 regulatory wetlands, mitigation in same watershed, annual monitoring reports required
- Deerfield: Per Lake County SMC, 1.5:1 for I, II and III, 5:1 for aquatic, and 6:1 for forest wetlands
- Des Plaines: Have never had one
- Glenview: 1:1 swap of wetlands, US Army Corps of Engineers permit required
- Hinsdale: 3:1 critical wetlands, 1.5:1 regulatory wetlands, periodic monitoring report includes design construction and maintenance
- Homewood: Erosion control and sedimentation basin
- Midlothian: Proper slope and erosion control
- Niles: Per regulatory authority
- Orland Park: 1.5:1 mitigation with 5-year maintenance and monitoring
- Palos Hills: US Army Corps of Engineers and IDNR requirements
- Roselle: See article 10 of the DuPage County Stormwater Management and Floodplain ordinance
- Schaumburg: Special use permit and US Army Corps of Engineers wetland permit
- South Holland: Regulated by others
- Streamwood: Ratio is 1.5:1
- Wheeling: US Army Corps of Engineers

PERMIT REVIEW AND ENFORCEMENT

41. Please list the parties involved in the review process for the following activities (examples: staff and/or consultants):

Plan Type \ Reviewer	Building Department/Commissioner	Consultants	Village Engineer	Public Works	Plans Examiner/Code Enforcement	Staff	DuPage County	USAC OE or IDNR-OWR
Stormwater	3	32	23	6	4	28	NA	NA
Floodplain Management	7	24	23	4	4	29	3	NA
Soil Erosion and Sediment Control	9	25	20	7	4	32	1	NA
Wetland, Stream Corridor and Lake Protection	4	27	18	5	3	21	2	3

42. Please describe enforcement mechanisms for non-compliant development activities:

- Alsip: Permits are regulated by the building department, fines and/or stop work orders
- Arlington Heights: Written citations, stop work orders, fines
- Bartlett: Referred to code enforcement, building code officials
- Bensenville: Cash bonds are held for stormwater permits
- Berwyn: Citations, fines, stop work orders from the building department
- Blue Island: Project will be shut down by the city if the contractor does not comply with the stormwater management plan
- Buffalo Grove: Municipal ordinance citation
- Burr Ridge: Stop work order, draw on letter of credit, if applicable, fines
- Calumet City: Citations, fines
- Calumet Park: Citations are issued
- Chicago Ridge: Code enforcement staff
- Cicero: Citations and fines
- Country Club Hills: A letter of credit surety is required, with a refusal for noncompliance
- Countryside: No permit issued for non-compliance
- Deerfield: Citations, stop work orders for non-compliance
- Des Plaines: Violation notice and subsequent hearing in City of Des Plaines court
- East Hazel Crest: If a violation occurs, the person liable is cited per code
- Elk Grove Village: Construction work is stopped, court citations are issued
- Elmwood Park: Code enforcement staff
- Flossmoor: Issuance of stop work order, local ordinance citation
- Forest Park: Depends on violation or infringement
- Forest View: Withhold permit or fines
- Franklin Park: Citations and fines, adjudication and fines

-
- Glencoe: Fines issues or project stop work order
 - Glenview: Stop work order, written citation and fees
 - Glenwood: Building department
 - Harvey: Building department
 - Hinsdale: Lawful actions, fines, stop work
 - Hoffman Estates: Shut down project
 - Homewood: Stop work orders, fines citations, court
 - Indian Head Park: Stop work orders, fines
 - Inverness: Deny building permits, stop work orders, complaint in circuit court
 - LaGrange Park: Permit revocation and fines possible
 - Lansing: Stop work order
 - Lemont: Violations are ticketed, in noncompliance, court date is set, village will fix problem and lien owner, enforcement is the key
 - Lynwood: Stop work, ticketing, hold letter of credit
 - Lyons: Penalties, fines, liens
 - Maywood: Citations, court, fines, stop work
 - Midlothian: Floodplain and stormwater ordinance
 - Morton Grove: Tickets, fines, stop work orders, non-issuance of occupancy permit
 - Mount Prospect: Citations and fines
 - New Lenox: Stop work orders, fines
 - North Riverside: No permit issued for non-compliance
 - Northbrook: Hold-up, delay the issuance if the occupancy permit and return of escrow
 - Northfield: Stop work order, issue ticket with up to \$750/day fine, court appearance, no occupancy permit issued
 - Northlake: Issue citations
 - Oak Forest: Suspension of building permits
 - Oak Lawn: Court, fines
 - Orland Park: Project is halted or stopped until compliance, ticket issued and fine levied
 - Palatine: Citations, fines, stop work, court
 - Palos Hills: Per city codes
 - Palos Park: Stop work orders and/or fines
 - Park Ridge: Citations, fines, stop work orders
 - Prospect Heights: Stop work orders, tickets, fines
 - Riverside: Citation under village code
 - Rolling Meadows: Inspection every two weeks and fines for non-compliance, and stop work
 - Roselle: Stop work
 - Rosemont: Code enforcement staff
 - Sauk Village: Ticketing, fines, or stop work order
 - Schaumburg: Enforcement mechanisms range from warnings to stop work orders to fines for non-compliance
 - Schiller Park: Permit revocation and fines possible
 - Skokie: Stop work order, citations, fines
 - South Holland: Citations, fines, stop work order
 - Streamwood: Stop work or stop occupancy permit
 - Summit: Tickets issued
 - Wheeling: Municipal code violation citation
 - Wilmette: Code enforcement, other issue a citation

-
- Winnetka: Jobs can be stopped until situation is rectified ad/or impose citation and penalty fine
 - Worth: Citations, fines, liens
43. List the water resource related standards requiring the most enforcement action:
- Bartlett: Sediment and erosion control standards
 - Bensenville: Site work, erosion control, floodplain and wetland preservation next to construction
 - Blue Island: Erosion control
 - Burr Ridge: Sediment and erosion control
 - Calumet Park: Village ordinance
 - Country Club Hills: As-built verification of detention systems, currently not getting enough information to verify proper construction
 - Countryside: Special flood hazard area and stormwater detention
 - Deerfield: Soil erosion
 - Des Plaines: Filling in the floodplain without a permit
 - Elk Grove Village: Detention pond volume
 - Flossmoor: Village of Flossmoor Stormwater management code (11/90) Article 1.108 – Obstructions in water courses
 - Forest Park: Soil erosion control
 - Forest View: Water quality from industrial sites
 - Franklin Park: Floodplain management, stormwater requirements are refined during pre-development and construction stages
 - Glencoe: Because of the number of redeveloped home sites, silt fence maintenance is the most common, knocked down or improper installation
 - Glenview: Erosion control practices
 - Glenwood: Detention volumes
 - Harvey: Floodplain management
 - Hazel Crest: Detention design review
 - Hickory Hills: Floodplain encroachment
 - Hinsdale: Erosion control
 - Hoffman Estates: Illinois urban manual
 - Indian Head Park: Altering water course, obstructing ditches, erosion control
 - Inverness: Soil erosion and sedimentation control
 - LaGrange Park: Floodplain regulations
 - Lansing: Village ordinance
 - Lemont: Knocked down silt fence and mud on street, a daily enforcement problem
 - Midlothian: Floodplain issues relative to residential development
 - Morton Grove: NPDES permit requirements
 - Mount Prospect: Sump pump discharge code violations
 - New Lennox: Altering water course, obstructing ditches, erosion control
 - North Riverside: Stormwater detention
 - Northbrook: Stormwater detention and floodplain development
 - Northfield: Stormwater issues
 - Northlake: Soil erosion and sediment
 - Oak Forest: Soil erosion control
 - Orland Park: Soil erosion control
 - Palos Hills: Soil erosion and sediment control regulations

- Palos Park: Erosion and sediment control
- Prospect Heights: Illegal dumping if SFMA, flood proofing non-residential structures, erosion control maintenance
- Riverside: Increase in storm flows caused by in-fill development
- Roselle: Erosion control
- Sauk Village: Household stormwater discharge to unpermitted locations
- Schaumburg: Soil erosion control
- Schiller Park: Floodplain regulations
- Streamwood: Soil erosion control
- Summit: Silt fence knocked down
- Wheeling: Wetland violations, soil erosion control during construction activities
- Wilmette: Soil erosion
- Winnetka: Filling in floodplain

Appendix A

Cook County Stormwater Management Questionnaire Township Responses

A stormwater management questionnaire was developed by the Metropolitan Water Reclamation District of Greater Chicago to assess the current stormwater management framework in Cook County while developing the Cook County Stormwater Management Plan. The purpose of this questionnaire was to identify regulatory standards of the local governments in Cook County in regards to stormwater drainage and detention, floodplain management, soil erosion and sediment control, and stream and wetland protection. The questionnaire was sent to each of the municipalities, townships, and drainage districts. The questionnaire responses were collected in February 2006. The following summarizes the responses received from the townships.

After each question, the number of Yes and No responses are given. Additional narrative responses are summarized below the question.

The townships responding to the questionnaire include:

Bloom Township	Maine Township
Calumet Township	New Trier Township
Elk Grove Township	Palatine Township
Leyden Township	Palos Township
Lyons Township	

GENERAL

- Please rank, in order of importance, the most critical elements of stormwater management as they pertain to your township. (1=most important, 4=least)

Importance	1	2	3	4
Drainage Problems	4	1	2	0
Overbank Flooding	2	3	0	2
Erosion/Sedimentation	0	0	5	2
Water Quality	0	1	0	6
Other (please describe)	1	1		

Other comments included:

- Bloom: Numerous instances of flooding during recent wet weather cycle exacerbated by inadequate stormwater drainage, debris and vegetative growth blocking waterways.
- Palatine: Marked 1 for Permit Process
- Palos: Marked 2 for the antique storm drain in the McGinnis subdivision.
- Maine: Drainage problems with the secondary street ditches, overbank flooding for Prairie Creek, erosion on Prairie Creek, and overland dirty water in creek.
- Palos: Keeping ditches clean.
- Calumet Township and New Trier Township did not answer this question

-
2. Have any drainage, flooding, water quality, environmental or other water resource related studies (master plans, watershed plans, etc.) been prepared or are being prepared for your township? **YES (2) NO (5)**

If yes, please describe the study briefly:

- Maine: IDNR, many plans over past 20 years
- Palatine: Hydrologic study of Salt Creek through Plum Grove Estates
- Lyons: Ordered digital orthographic contour photographs of the unincorporated areas of the township to determine the best means of solving current drainage problems

3. Has an inventory of drainage systems (ditches, drainageways, on line detention facilities, storm sewers, etc.) been completed?
YES (2) NO (4)

Is the inventory updated on a regular basis?

YES (1) NO (3)

If yes, please describe the format of the inventory, frequency of updates, and date of last update:

- Leyden: Log book mapping
- Lyons: Once photos received, field survey to be made to identify all culverts, storm sewers etc.
- Palos: On-going visual inventory

4. Does your township have a regular drainage facility maintenance program?
YES (6) NO (1)

5. What are your most recent capital improvement projects relating to drainage or stormwater?
- Bloom: Proposal to remove and replace drainage culverts on various township roads
 - Elk Grove: Martha Lincoln detention basin
 - Leyden: Silver Creek bank improvements, continual updating storm sewer and ditch improvements
 - Lyons: Replace defective culverts on a yearly basis, as well as rechannelizing ditch
 - Maine: Minor culvert ditching yearly, all new construction must pipe property line rerouting to shortest or direct route to creek
 - Palatine: Forest Estates curb and gutter and storm sewer improvements
 - Palos: Replace pipe at McGinnis storm drain, annual ditch cleaning, grade all method, culvert pipe replacement, periodic under drains

6. What intergovernmental agreements does your township have with other townships, districts, communities or agencies relevant to water resources (examples: stormwater, floodplain, stream preservation, right-of-way acquisition, project cost sharing, land preservation, NPDES permits, Operations and Maintenance, NRCS, etc.)? Please list agreements:
- Lyons: Work closely with Indian Head Park and Cook County Highway Department for drainage improvements
 - Maine: Work closely with neighbors, system flows through Glenview, Niles and Des Plaines.