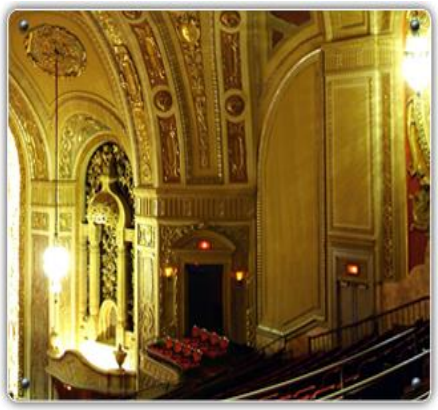
July 2014

City of Joliet
Stormwater Management Plan

By: Hampton, Lenzini and Renwick, Inc. (HLR)



City of Joliet
Public Works Department
150 W. Jefferson Street
Joliet, IL 60432

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1.0 INTRODUCTION

Phase I of the National Pollutant Discharge Elimination System (NPDES) stormwater program began in 1990 and required medium and large municipalities with populations of 100,000 or more to obtain NPDES coverage for stormwater discharges from or associated with municipal separate storm sewer systems (MS4). The expanded Phase II program began in March 2003 and required operators of small MS4s in urbanized areas to obtain NPDES permits and implement six (6) minimum control measures. An urbanized area as delineated by the Bureau of Census is defined as a central place or places and the adjacent densely-settled surrounding area that together have a residential population of at least 50,000 people and an overall population density of at least 1,000 people per square mile. The current size of the City of Joliet is 61.9 square miles and its population, according to the 2010 census, is 147,433.

The General Stormwater Permit for MS4s was reissued on February 20, 2009, with an effective date of April 1, 2009. The expiration date was March 31, 2014. The reissued permit requires permittees to consider incorporating green infrastructure concepts into their stormwater program. The Agency requires, for purposes of public notice, that the Notice of Intent (NOI) for construction site projects be submitted to the Agency electronically and placed on the City of Joliet's website. These projects are still automatically covered under the construction site activities general permit ILR10 pursuant to this permit. NOIs and annual reports are to be electronically submitted to the Agency at: epa.constilr10swppp@illinois.gov.

1.1 Watersheds, Sub-Watersheds and Receiving Waters

The City of Joliet is located within the Des Plaines River Watershed. The Des Plaines River Watershed covers a total of 854,669 acres in Lake, Cook, DuPage, and Will counties. The majority of the watershed is part of the greater Chicago Metropolitan area and has been extensively developed for urban and industrial use. Remaining rural and agricultural lands are primarily in Lake and Will Counties. The Des Plaines River originates just south of Union Grove, Wisconsin, and enters Illinois near Russell. From Russell, the Des Plaines flows in a southerly direction through Lake and Cook counties. Near Lyons, the Des Plaines turns to the southwest paralleling the Chicago Sanitary and Ship Canal in DuPage and Will counties until the confluence near Joliet. The Des Plaines continues southwest to the confluence of the Kankakee and the beginning of the Illinois River. Other receiving waters in Joliet include the DuPage River, Thorne Creek, Sugar Run Creek, Spring Creek, Cedar Creek, Hickory Creek, Aux Sable Creek, Rock Run Creek, Jackson Branch and Jackson Creek.

The sub-watersheds and receiving waters are presented on Figure 1.

The City of Joliet is active in three sub-watershed groups: The Hickory Creek Watershed Planning Group, the Lower DuPage River Watershed Coalition, and the Aux Sable Creek Watershed Coalition.

- The 109-square mile Hickory Creek Watershed is located in Will County, Illinois. The Hickory Creek Watershed is a vital subwatershed of the Lower Des Plaines Watershed. Due to intense residential and commercial development in the recent past, environmental degradation of Hickory Creek has occurred. As a result, a team of local southwest suburban municipalities and local non-profits have created the Hickory Creek Watershed Planning Group with the goal of preserving the Watershed for future generations. The City of Joliet and the Hickory Creek Watershed Coalition are committed to the mutual goal of protecting water quality in the Hickory Creek Watershed. Information about the coalition can be found at http://www.hickorycreekwatershed.org/.

- The Lower DuPage River Watershed covers 168 square miles and encompasses portions of 13 municipalities, located within four counties. The Lower DuPage River Watershed Coalition formed to provide a local, coordinated effort to address water resource concerns using a science based approach to identify water quality stressors and develop ecologically and economically sound approaches to restore stream health. The City of Joliet and the Lower DuPage River Watershed Coalition are committed to the mutual goal of protecting water quality in the Lower DuPage River Watershed. Information about the coalition can be found at http://www.dupagerivers.org/.

- The 187-square mile Aux Sable Creek Watershed is located in Kendall, Grundy and Will Counties, Illinois. In 2006, a stream in the Aux Sable Creek Watershed was listed on the Environmental Protection Agency's 303(d) List of Impaired Waters. Changes in the watershed along with new criteria for watershed plans, prompted the Aux Sable Creek Watershed Coalition and The Conservation Foundation to collaborate and request Section 319 funding to work with a group of local stakeholders to update the original watershed plan. The City of Joliet and the Aux Sable Creek Watershed Coalition are committed to the mutual goal of protecting water quality in the Aux Sable Creek Watershed. Information about the coalition can be found at http://www.auxsablecreekwatershed.org/.

Subwatersheds and Receiving Waters of Joliet

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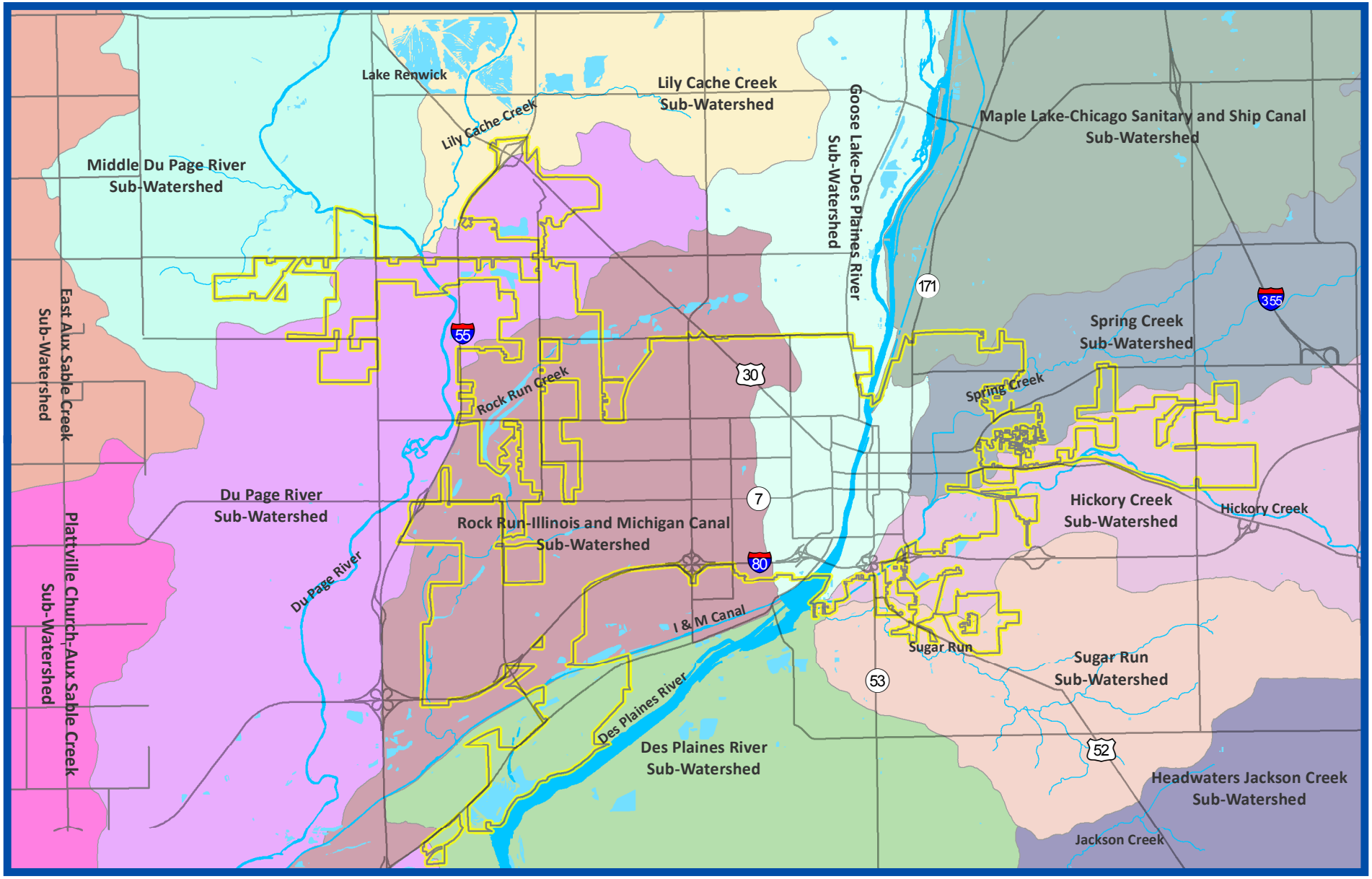


Figure 1

The City has a Combined Sewer Overflow (CSO) system. This sewer system was designed to collect rainwater runoff, domestic sewage, and industrial wastewater all in a single pipe, to be treated in a sewage treatment plant and released to a water body. During periods of heavy rainfall or snowmelt, however; the wastewater volume in a combined sewer system can exceed the capacity of the sewer system or treatment plant. The system is designed to overflow occasionally and discharge excess wastewater directly to nearby streams, rivers, or other water bodies. The City of Joliet has developed a CSO location map included as Figure 2. The City of Joliet held a public hearing on November 10, 2009 about the combined sewer system long-term control plan. The combined sewer system long-term control plan is on the City's website under the Public Utilities section, on the Combined Sewer Overflow link. An example of a CSO Illicit Discharge Caution sign is included in Appendix C.

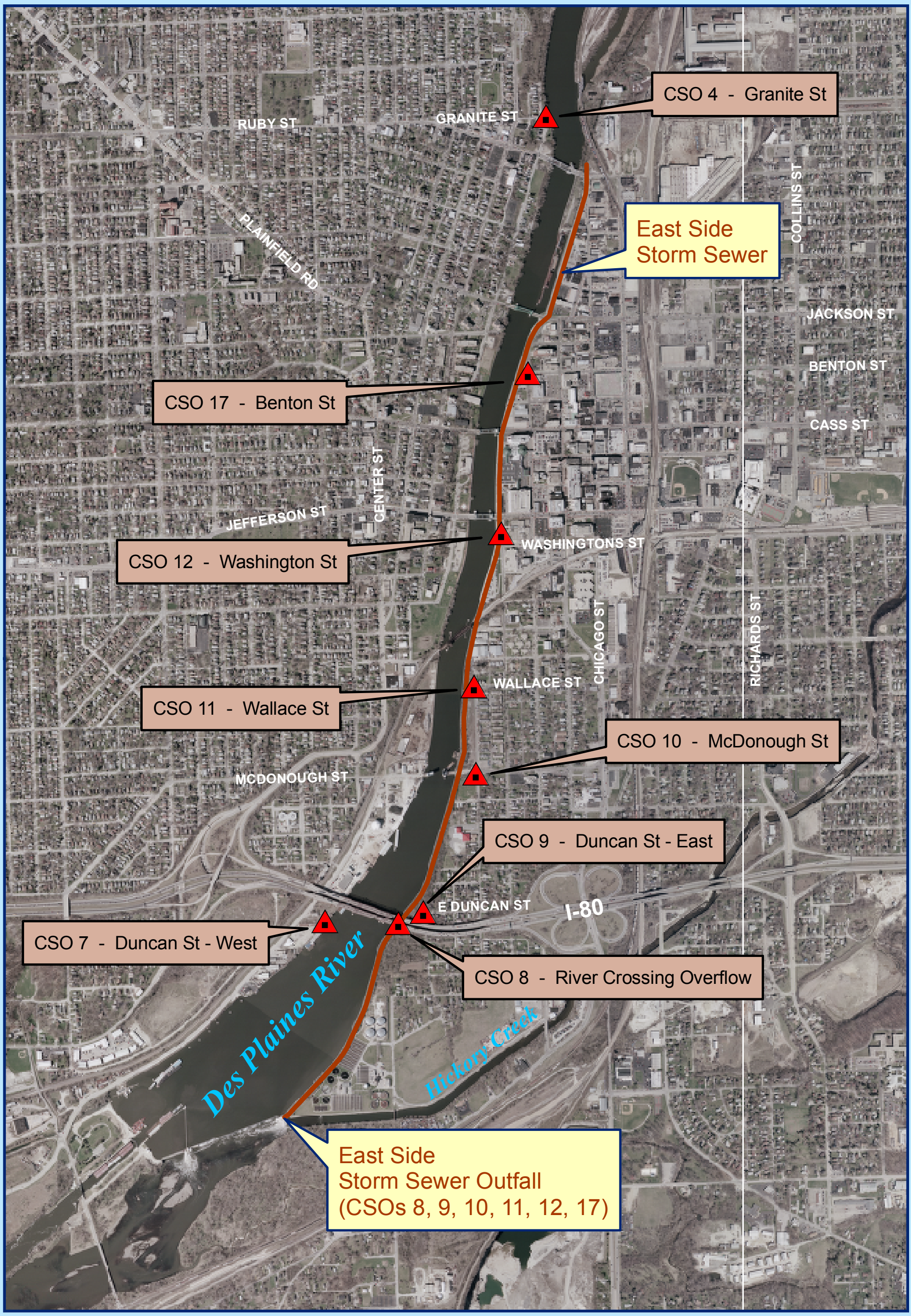
1.2 Illinois Governor's Sustainability Award

In 2013, The City of Joliet received the State of Illinois Governor's Sustainability Award in recognition of substantial accomplishments in sustainability, protecting the environment, and improving the economy. The City of Joliet joined 26 other Illinois companies and organizations that "demonstrated a commitment to environmental excellence through outstanding and innovative sustainability practices."

Applicants were evaluated primarily on their implementation of sustainability activities. Applications needed to address the three legs of sustainability; economic, social and environmental issues. The City of Joliet's achievements include significant improvements to the city's recycling program, installation of LED traffic signals, and HVAC retrofits at city operated facilities.

City of Joliet officials accepting the Governor's Sustainability Award in 2013.

Combined Sewer Overflow (CSO) Location Map



City of Joliet Public Utilities Department 2/13/09

Figure 2

2.0 BEST MANAGEMENT PRACTICES AND MEASURABLE GOALS

MS4 requirements include developing a Stormwater Management Program comprised of Best Management Practices (BMPS) and measurable goals for each of the following six minimum control measures:

- Public education and outreach on stormwater impacts
- Public involvement and participation
- Illicit discharge detection and elimination
- Construction site stormwater runoff control
- Post-construction stormwater management in new development and redevelopment
- Pollution prevention/good housekeeping for municipal operations

The following describes the City of Joliet's BMPS based on the above six minimum control measures as well as incorporation of green infrastructure concepts. Green infrastructure uses vegetation, soils, and natural processes to manage water and create healthier urban environments. Green infrastructure mimics nature by soaking up and storing water, in contrast with the impervious surfaces of development. Measurable goals for each BMP are summarized below.

2.1 Public Education and Outreach on Stormwater Impacts

A knowledgeable public is essential for the successful implementation of a Stormwater Management Plan. When the community is aware of and engaged in stormwater issues, it understands the necessity and importance of its MS4's stormwater plan. This understanding includes personal responsibilities and individual actions for improving local water quality. Public education efforts contribute to plan success by gaining greater support within a community. Public support is beneficial to an MS4 operator that may relay on the public for implementation through funding measures or volunteer efforts.

The success of a public outreach program depends upon:

- Forming Partnerships
- Using Educational Materials and Strategies
- Reaching Diverse Audiences

The City is an active partner with the following organizations:

- Hickory Creek Watershed Planning Group
- Lower DuPage River Watershed Coalition
- Aux Sable Creek Watershed Coalition
- Joliet Job Corps
- The Conservation Foundation
- Waste Management, Illinois
- Joliet Junior College
- University of Saint Francis

The City of Joliet, along with its partners, proposes to distribute paper materials, create a public service announcement and offer education measures to implement public education and outreach in its MS4 area.

- **BMP A-1:** The City will create material pertaining to stormwater quality education and make it available to the public.

  Measurable Goal: The City provided pamphlets with information concerning the Stormwater Management Plan at City Hall, 150 W. Jefferson Street. These materials were also available at education events. Topics included: Stormwater Runoff, Joliet's Rain Barrel Program, and Rain Gardens. Copies of the brochures are included in Appendix A. Additionally, the City plans to develop and distribute the following posters:

  - Rain Garden Information Poster
  - Stormwater Information Poster
  - Rain Barrel Information Poster

- **BMP A-1:** The City will provide yearly water quality reports to educate residents and business owners.

  Measurable Goal: The City mails water quality reports to all residents each year. Copies of these reports are available on the city's website on the Public Utilities page, under the "Our Water" section. A copy of the 2012 water quality report mailed in 2013 is included in Appendix A.

- **BMP A-1:** The City will create public service advertisements for public/cable television.

  Measurable Goal: The City produced and aired an advertisement on Joliet Community Television (JCTV; Channel 6). The ad addresses stormwater issues for the purpose of educating the public. The ad has aired eight times a month since the program began. A copy of the advertisement is included in Appendix A.

- **BMP A-1:** The City will create billboard advertisements for stormwater education.

  Measurable Goal: The City produced a billboard advertisement to educate the community on catch basin cleaning. This advertisement rotates with other adds created by the city. A copy of the billboard advertisement is included in Appendix A.

- **BMP A-2:** The City, in partnership with the Lower DuPage River Watershed Coalition, will provide speaking engagements to educate coalition members and the public on stormwater issues.

  Measurable Goal: The Coalition hosts bi-monthly meetings where technical presentations are made on a variety of water quality and surface water management topics. The audience is mainly stormwater and wastewater professionals, but the general public is also welcome to attend. The list below includes presentations that were made in 2012.

  - September 13, 2012, Presentation: Water Quality Database & Data Management. Presenters: Mark Willobee - Geosyntec, Stephen McCracken – Dupage River Salt Creek Workgroup
  - November 8, 2012 Presentation: Post Development Stormwater Runoff Standards. Presenters: Jennifer Hammer – The Conservation Foundation, Steve Amann – Baxter & Woodman

- **BMP A-3:** <u>The City will post public service advertisements on the City website.</u>

  Measurable Goal: The City is in the process of developing a catch basin adoption message for electronic message boards that is scheduled to debut in 2014.

- **BMP A-6:** <u>A section of the City's website will be dedicated to help educate the public on stormwater quality.</u>

  Measurable Goal: The City expanded the Public Works section of the website to include additional information and links to proposed public programs. The following actions were taken:

  - The Westwood Rain Garden slideshow was updated in December, 2013.
  - The City installed its first large scale rain garden at 900 Westwood Avenue in 2010, with over 4,000 plugs planted by volunteers.
  - There is a page on the City's website dedicated to the rain barrel program.
  - The sustainability section of the City's website has additional information on city projects including LED Traffic Signals, the City's anti-icing program, street sweeping, and catch basin stenciling.
  - There is a page on the City's website, under the Public Utilities Section, dedicated to the City's Water Conservation Program. The page includes water conservation tips, as well as lawn watering restrictions from the Joliet Code of Ordinances. Joliet allows residents to water lawns between 6 am and 10 am or 6 pm and 10 pm. Houses with even numbered addresses may only water on even numbered days, and likewise for odd-numbered addresses. This measure maintains water reserves for public health needs and fire protection in the City.

Since 2010, the City has partnered with volunteers from Joliet Job Corps and other organizations to stencil educational messages in front of catch basins warning residents that the water that enters the drains flows directly into a nearby waterway.

2.2 Public Involvement and Participation

An active and involved community can provide assistance and input for an MS4 Stormwater Management Program, which benefits its implementation and development. An increased effort to involve the community may lead to more active support and fewer legal challenges from residents. This will also reduce implementation time, as citizens may volunteer their time and are less likely to resist measures. An involved community provides a broader base of expertise and economic benefits, which may also improve the important interactions with other communities and government programs.

The success of a public involvement program depends upon:

- Compliance with applicable State, Tribal, and local public notice requirements
- Understanding which implementation approaches and BMPS are best for the MS4 community
- Understanding the community and how to gain its attention and interest

The City of Joliet proposes establishing educational programs and developing its website to accept public comments regarding stormwater issues in order to implement public involvement and participation in its MS4 area.

- **BMP B-6:** The City of Joliet will coordinate environmental programs in the community.

  Measurable Goal: The City has developed its own programs and several programs in partnership with the Joliet Job Corps, The Conservation Foundation, the Lower DuPage Watershed Coalition, and local community colleges including Joliet Junior College (JCC) and the University of Saint Francis. The following actions were taken:

  - The City developed a rain barrel program in 2009. The City provided a limited number of 55-gallon plastic storage barrels for conversion into rain barrels, as well as step-by-step instructions for the conversion process, between 2009 and 2013. The instructions are included in Appendix B. The City encourages residents to install rain barrels on their property to reduce storm water runoff from roofs, and also reduce treated water usage on gardens and lawns. Starting in 2014, residents can purchase reduced cost rain barrels through a partnership with The Conservation Foundation.

Rain Barrel Distribution	
Total number of barrels distributed in 2009	29
Total number of barrels distributed in 2010:	201
Total number of barrels distributed in 2011:	109
Total number of barrels distributed in 2012:	96
Total number of barrels distributed in 2013:	33
Totals distributed between 2009 and 2013:	**468**

- The City plans to conduct educational outreach, in coordination with the Lower DuPage Watershed Group, to teachers on Project WET (Water Education for Teachers).
- The City participates in yearly educational fairs at Joliet Junior College, University of Saint Francis, Joliet Job Corps and the regional Celebrating Sustainability Festival. The fliers from the Joliet Job Corps Event and Joliet Junior College event from 2014 are included in Appendix B.
- The City partnered with the Joliet Job Corps for rain garden clean-up events each spring and fall.
- The Joliet Job Corps was also a partner for the catch basin-stenciling, which helped to educate the public that catch basin drains are intended to only accept stormwater.
- In partnership with the Lower DuPage Watershed Coalition, Joliet participates in the Conservation @ Home Program, which encourages and recognizes property owners that protect and/or create yards that are nature-friendly and conserve water. Through this program, the City will assist in checking the rain gardens at individual residences.

An Interactive display depicting the importance of catch basin maintenance at an educational event.

Information about the City's rain barrel program on display.

- **BMP B-7:** <u>The City will accept public comments via e-mail through the city website as well as through the Customer Service telephone line.</u>

  Measurable Goal: The following goals achieve this BMP:

  - The City's website, <u>http://www.visitjoliet.org/</u>, accepts Public comments through the Service Request section. On this page, residents my file a complaint, question, compliment, or problem, and have the opportunity to upload a photo or file attachment to correspond with their submittal.
  - Customer Service, at (815) 724-3820, receives public comments. Complaints are logged and forwarded to the corresponding Department for investigation and response.

2.3 Illicit Discharge Detection and Elimination

An illicit discharge is a release into a storm drain system that contains elements other than stormwater. Any pathogens, nutrients, or pollutants within the discharge will flow to and negatively impact waterways within the MS4 area. An effective program must respond to spills and discharges to the storm drain, as well as education, training, and enforcement measures to eliminate the occurrence of illicit discharge.

The success of the program to detect and eliminate these illicit discharges includes developing:

- a storm sewer system map
- an ordinance prohibiting illicit discharges
- a plan to detect and address these illicit discharge
- an education program on the hazards associated with illicit discharges

The City of Joliet proposes to prepare a storm sewer map, create a regulatory control program, develop applicable ordinances to restrict illicit discharge, develop illicit discharge tracing procedures, participate in visual dry weather screening, and participate in pollutant field testing to implement Illicit discharge detection and elimination in its MS4 area.

- **BMP C-1:** The City will update and maintain its storm sewer map.

  Measurable Goal: The City of Joliet converted 75% of its storm sewer system map to Geographic Information Systems (GIS) format. The City has updated the storm sewer system map annually. The current map is attached in Appendix C.

- **BMP C-2:** The City will expand the regulatory control program that regulates the discharging non-stormwater into the storm sewer system, detects these discharges before they become a problem, and establish enforcement procedures.

  Measurable Goal: The City drafted an ordinance that makes it unlawful for any person to discharge into the storm sewer system. The ordinance is enforced under the section entitled General penalty for violation of Code, which requires a fine of $750.00 per day for each offense. This Ordinance is attached in Appendix C.

  - Ordinance No. 6775, § 23, 11-17– An Ordinance prohibiting discharge of toilet, sink, septic tank, or other waste into the storm sewer system– Adopted November 1, 1977.

- **BMP C-2:** The City will maintain ordinances relating to illicit discharges to storm and sanitary sewers throughout the City.

  Measurable Goal: The City of Joliet has developed and adopted an ordinance regarding the storm and sanitary sewer systems within the City. The ordinance is attached within the Consolidated Stormwater Management, Soil Erosion and Sediment Control and Floodplain Management Regulations (2003) in Appendix C.

  - Ordinance No. 11301, Section 8—An Ordinance requiring submittal of site design features which minimize run-off volumes from the site for new development and construction—Adopted December 3, 1996

- **BMP C-4:** The City will update illicit discharge tracking procedures.

  Measurable Goal: The City of Joliet plans to modify the complaint tracking system to identify all illegal connections and illicit discharges to record locations onto their GIS database and document previous actions. The City has made this information available to field staff to ensure incident resolution. The City has developed written notification within the tracking system to ensure future compliance. The following actions are proposed:

  - Modifying the tracking procedure.
  - Educating staff on the documentation changes
  - Developing yearly summaries of known, new, and eliminated waste sources.

  A copy of the Illicit Discharge Tracking procedure is included in Appendix C.

- **BMP C-7:** The City will conduct visual dry weather screening.

  Measurable Goal: Areas with suspicious discharges will be inspected to determine suspected direct connections to the wastewater system and identify areas where wastewater might be leaking into adjacent storm drain pipes. The following actions have been taken:

  - The City transferred inspection duties to Sewer Department staff from treatment plant personnel.
  - Suspicious outfalls are regularly inspected across the city.
  - The City educated the staff and public on identifying suspicious discharges. There were 13 training events for staff recorded between April 2011 and April 2014 relating to illicit discharge detection. Summaries of these training sessions are attached in Appendix C.

- **BMP C-8:** The City will conduct pollutant field testing.

  Measurable Goal: Approximately 25% of storm outfalls will be tested annually to identify outfalls with illicit discharges. The following actions have been taken:

  - The City prepared written policies and procedures for field testing. An Outfall Inspection/Sample Collection Form and the Pollutant Field Testing Inspection and Sampling Policy and Procedure form are included in Appendix C.

2.4 Construction Site Stormwater Runoff Control

Stormwater runoff may pick up sediment, debris, and chemicals from a construction site and transport these to a nearby storm sewer system or directly to a river or other waterbody. The polluted runoff negatively impacts the aquatic life and community environment.

The success of the program to reduce pollutants in stormwater runoff includes developing:

- An ordinance or other regulatory mechanism requiring the implementation of erosion and sediment controls on applicable construction site
- Procedures for site plan review that consider water quality impacts
- Procedures for site inspection and enforcement control measures
- Sanctions to ensure compliance

- Procedures for receiving and considering information offered by the public
- An understanding of which implementation approaches and BMPS are best for the MS4

The City of Joliet proposes to include BMPs in site plans, develop public information handling procedures, and maintain an ordinance requiring permits for site grading, site plan review procedures, site inspection and enforcement procedures and other construction site runoff controls to implement construction site stormwater runoff control in its MS4 area.

- **BMP D-4:** The City will modify site plan review procedures to incorporate BMP designs. This BMP is also included under E-4 below.

  Measurable Goal: The City added a requirement for vegetated swales at the outlets of detention basins for all new development. This requirement is verified during the pre-construction review of development plans.

- **BMP D-5:** The City plans to expand and streamline public information tracking procedures utilizing CBI Systems' MS4web™ MS4 Permit Manager.

  Measurable Goal: The City plans to implement the tracking process whereby public complaints, concerns, permits, and inspections are logged to include relevant Public Works and Roadway Issues. The following actions will occur upon implementation of the software:

  - The City will educate staff on the use of MS4 tracking procedures.
  - The City will transition to online tracking using the MS4 program. Information on this system is available at MS4web.com.

- **BMP D-6:** The City will maintain an ordinance wherein a party proposing to perform site grading, stripping, excavating, or filling of land to submit a site permit.

  Measurable Goal: The following ordinance is attached within the Consolidated Stormwater Management, Soil Erosion and Sediment Control and Floodplain Management Regulations (2003), in Appendix C.

  - Ordinance No. 10323, Section 3–An ordinance guiding, regulating and controlling the design, construction, use and maintenance of any development or other activity which disturbs or breaks the topsoil or otherwise results in movement of earth on land situated within the corporate limits of Joliet– Passed December 8, 1993.

- **BMP D-6:** The City will modify site inspections and enforcement procedures.

  Measurable Goal: The following measures have been taken to fulfill this BMP:

  - The City utilizes field inspectors to monitor sediment and erosion control measures and enforce the City's requirements through routine inspections. A Stormwater Construction Site Inspection Report form is attached in Appendix D.
  - The City modified the bonding and letter of credit process to provide for extended long-term site stabilization funding. The procedures will be implemented throughout the life of the storm water management program.
  - The City sought City Council approval form implementation of new bonding process for long term soil erosion control measures. This information is in Ordinance No.

10323, Section 3, adopted December 8, 1993, and is included within the Consolidated Stormwater Management, Soil Erosion and Sediment Control and Floodplain Management Regulations (2003) in Appendix C.

- The City instituted policy changes to include incremental payouts and a line item to reserve funding for stabilization for construction projects.
- The City proposes to educate the public on new soil stripping policies.

- **BMP D-7:** The City will modify existing requirements for stormwater pollution prevention BMPs for construction site operators.

  Measurable Goal: The following measures have been taken to fulfill this BMP:

  - The City educated staff and developers on use of additional BMPS. Informal training occurs regularly between supervisors and staff.
  - The City requires construction site operators to include the use of catch all inlet protectors instead of filter fabric, and defined the procedure for site dewatering during construction. Dewatering requirements are included within the Consolidated Stormwater Management, Soil Erosion and Sediment Control and Floodplain Management Regulations (2003) in Appendix C.

Catch-All Inlet Protector

2.5 Post-Construction Stormwater Management in New Development and Redevelopment/Incorporation of Green Infrastructure Concepts

Stormwater flowing over new developments may increase the type and quantity of pollutants it picks up. Additionally, the greater areas of impervious surfaces resulting from development increases the amount of water routed through drainage systems. This may lead to damage of the stream banks and flood events.

The success of the program to reduce pollutants in stormwater runoff includes developing:

- Strategies to implement a combination of structural and non-structural BMPs
- An ordinance to address post-construction runoff
- A program to ensure adequate long-term operation and maintenance of BMPs

The City of Joliet proposes to conduct pre-construction reviews of BMP designs, enforce site inspection during construction and post-construction inspections to implement post-construction stormwater management in new development in its MS4 area.

- **BMP E-4:** The City will conduct pre-construction review of BMP designs.

  Measurable Goal: The City added a requirement for vegetated swales at the outlets of detention basins for all new development. This requirement is verified during the pre-construction review of development plans.

- **BMP E-5:** The City will develop construction site inspection procedures.

  Measurable Goal: The City developed coordinating procedures between staff and Certified Site Operation inspectors. This included an inspection check sheet, and establishing penalties and consequences for non-compliance. The check sheet is attached in Appendix E. Please note that this is the same Stormwater Construction Site Inspection form as in Appendix D.

- **BMP E-5:** The City will develop regulations to address post-construction runoff from new development and redevelopment.

  Measurable Goal: The City defined the regulations for construction runoff within the Consolidated Stormwater Management, Soil Erosion and Sediment Control and Floodplain Management Regulations (2003) in Appendix C.

2.6 Pollution Prevention/Good Housekeeping for Municipal Operations

Activities within the municipality can threaten water quality without established pollution prevention measures. Some of these activities include park, building, road, and automobile maintenance. Municipalities actively remove pollutants from the MS4 by street sweeping, storm drain clearing and other activities. BMPS must be in place to handle non-stormwater discharges, trash, and spills in order to effectively protect water quality.

The City's Public Works Department invested in equipment to reduce salt application, causing less damage to waterways. The operator of an MS4 can successfully prevent pollution and maintain good housekeeping within its municipality by:

- Developing inspection and maintenance procedures and schedules for stormwater BMPs
- Implementing BMPs to treat pollutants from municipal facilities
- Establishing procedures for properly disposing of pollutants removed from the MS4
- Integrating water quality measures into new and existing flood management plans

The City of Joliet proposes an employee training program and an inspection and maintenance program to implement pollution prevention/ good housekeeping in its MS4 area.

- **BMP F-1:** The City will conduct employee training regarding the importance of stormwater pollution and good housekeeping practices.

  Measurable Goal: The following actions were taken to meet this BMP:

  - On April 15, 2011 the Roadways Division Foreman were instructed and reminded of separating inspection forms and detailing catch basin cleanings throughout the maintenance districts. These daily work log forms are to be copied and placed in a separate folder.
  - On May 1, 2010 the Roadways Division Employees were instructed on separating inspection forms and detailing catch basin cleanings throughout the maintenance districts.
  - On Wednesday, September 22, 2010 the Roadways Division of the Department of Public Works attended a 2010 Public Roads Deicing Workshop. This seminar focused on cutting back on the use of salt and chlorides during snow and ice removal processes. Five Roadways Division Employees were in attendance.
  - On Tuesday, June 29, 2010 the Department of Public Works and Roadways Division attended a seminar webcast dealing with the requirements related to the NPDES permitting and good housekeeping BMP's. Fifteen employees from the Public Works Department attended this workshop.
  - The City's roadway engineer gave a presentation on the Anti-Icing/ De-Icing Program on October 23, 2013. The presentation is included in Appendix F.
  - The City of Joliet is an agency member of the Lower DuPage River Watershed Coalition, which provided winter de-icing workshops in October 2013. Information about these workshops are included in Appendix F.
  - Informal training occurs regularly between supervisors and staff. An e-mail reminder of Best Management Procedures sent to the Roadways Division in 2013 is attached in Appendix F.

- **BMP F-2:** The City will maintain a street sweeping program for the downtown and outlying areas.

  Measurable Goal: The following measures have been taken to fulfill this BMP:

  - The City of Joliet Roadways Division is responsible for sweeping over 500 miles of roadways with a fleet of 10 street sweepers. When temperatures are above freezing (32 degrees) and conditions are dry, the street sweepers are dispatched to specific areas. The City of Joliet Downtown is swept every morning during the week. The remaining areas of the City are divided into 5 maintenance districts with street sweeping done on a neighborhood by neighborhood basis. It is the goal of the Roadways Division to sweep each neighborhood completely once every 5 to 6 weeks.

- **BMP F-2:** The City will maintain a catch basin and storm cleaning program.

  Measurable Goal: The City of Joliet cleans all catch basins with a vacuum truck prior, during, or after major rain events. Catch basins are currently cleaned starting from east to west across the city.

- **BMP F-2:** The City will incorporate a street de-icing program and educate the staff on the procedures.

  Measurable Goal: The following measures have been taken to implement this BMP:

  - The City of Joliet utilizes a mixture of rock salt and organic liquids containing sugar beet juice in the fight against snow accumulation and freezing on the roadways. This combination allows for the material to be effective down to a temperature of minus thirty degrees (-30) Fahrenheit. In addition, this mixture will be less corrosive to the streets, vehicles, and vegetation within the City of Joliet.
  - The City is proactive in their snow fighting with the application of an anti-icing program where the streets are treated with a chemical composition to combat the onset of the accumulation of snow and ice and also prohibit the bond between the snow and ice and the pavement. This chemical composition to be used consists of salt brine, beet juice, and calcium chloride. As more equipment becomes available this treatment will be expanded to all the streets in the City of Joliet.
  - The City has 4 salt domes for salt storage. Salt surpluses are to be stored at designated salt pile locations away from any structures, waterways, or wetland areas.
  - The deicing presentation from the Public Service Committee's November 4, 2013 meeting is attached in Appendix F.

- **BMP F-2:** The City will identify priority sites that warrant inspections before and after significant rain events.

  Measurable Goal: The City developed the following list of priority sites to be checked after every rain event:

Maintenance District 1
Desert Lane and County Line Road
Black Road and Barberry (Jones School)
All Gravel roads
Maintenance District 2
Aldi Drainage ditch (Hennepin/Route 30)
I-55 Frontage Road (Black to Caton Farm)
Essington/Ingalls Intersection
Silver Rock Street in Wexford East
McDonough Street west of Airport Road

Maintenance District 3
There are no priority areas in Maintenance District 3.
Maintenance District 4
1500 Center Street Drainage
Maintenance District 5
Richards/Doris Intersection
S. Center Street and Pleasant Street intersection

- The City maintained inspections and documentation for these sites. These documents are attached in Appendix E.

- **BMP F-2:** The City will store vehicle fluids and materials in closed containers.

  Measurable Goal: The City has containers for vehicle fluids which are kept at the Cedarwood Drive facility.

Oil Drums

Snow Fighting

Oil Drums

Bulk Oil

- **BMP F-2:** The City collects refuse and recyclable materials.

Measurable Goal: Joliet invested in a partnership with Waste Management of Illinois, Inc. to provide every household with new 96-gallon wheeled recycling containers and introduce an every-other-week collection schedule. Because the recycling containers are five times larger than the previous containers, residents can collect more recyclables and Waste Management is able to deploy fewer collection trucks, reducing total emissions. The City conducted an aggressive outreach campaign to promote the new program, and in the past two years Joliet's residential recycling volumes increased by 34 percent and landfill disposal volumes dropped by 12 percent.

Waste Management's 96-gallon recycling container.

3.0 STORMWATER MANAGEMENT PLAN CONTINUED IMPLEMENTATION

This Stormwater Management Plan contains several BMPS under the six elements termed “minimum control measures” which, when implemented, will result in significant reduction in pollutants discharged into receiving waters.

Since inception of the requirements outlined as part of their General Stormwater Permit for MS4s, Joliet has been diligent on implementing the BMPs. The City of Joliet has successfully partnered with a variety of organizations and has conducted many education outreach activities, volunteer events, and other programs to promote increased stormwater awareness and achieve increased water quality in the lakes, rivers and wetlands within the City of Joliet.

The City will continue to comply with the requirements of Part VI of the NPDES MS4 permit and has identified additional items to be tracked and recorded. Records are maintained by the individuals responsible for each BMP and are compiled during the annual reporting process. The City will continue to:

- Evaluate program compliance and progress towards achieving its goals on an ongoing basis and summarize these findings in the annual report.
- Keep record for at least three years beyond the term of the permit.
- Make program-related records available to the public during regular business hours and upon adequate advance notice of the desire to review the program records.
- Submit the annual report by June 30 of each year.

The City of Joliet is exploring an MS4 tracking software to automate the requirements to track all aspects of MS4 stormwater permit compliance. This consists of centralized and organized record keeping (data, photos, files, and maps) across the internet, the standardization of inspection procedures, and the ability to easily prepare and print annual reports based on submitted data. The components of the software include:

- Tracking outfalls and illicit discharges
- Tracking construction and post-construction sites
- Tracking municipal, industrial, and commercial facilities
- Representative monitoring
- Tracking citizen reports and training records
- Linking photographs and file documents
- ArcGIS Map Linkage and Integration

The City of Joliet hopes to utilize the software in the future to be able to better track reporting and implementation of the Stormwater Management Plan.

Joliet is committed to protecting the water resources in its community. The Joliet Public Works Department, in coordination with the Public Utilities Department, is responsible for ensuring the implementation of this Stormwater Management Plan and documenting and tracking its success. Joliet is committed to protecting the water resources in its community.

APPENDIX A: Public Education and Outreach

Rain Barrel Brochure

Water Conservation Program
Conservation Tips

Change Habits:

- Brush teeth—rinse brush then turn off the water
- Shaving—use a couple inches of water in the sink to rinse
- Dishes—fill the sink to rinse
- Vegetables—fill the sink to rinse them
- Toilet flushing—flush only when needed; don't use to dispose of trash
- Bath—take shallower baths and keep showers short
- Laundry—full loads save the most water
- Dishwasher—full loads save the most water

Repair Leaks:

- Check faucets and pipes for leaks
- Toilet—add food coloring to the toilet tank water (don't flush), and check the bowl in 15 minutes. Color in the toilet bowl probably means there's a leak.
- Outside—check hose connections, irrigation systems, and pool and filtration systems.
- Meter—check to see if there are leaks by reading the meter at night before going to bed when no water will be used, then read the meter again in the morning. If there is a change in the number then there is a leak somewhere in the home.

For more great ideas check our website at www.jolietwater.com.

Where can I get more information or provide comments?

For questions about your water bill, change the name on an account or set up automatic billing contact:
City of Joliet—Customer Service
150 W. Jefferson Street
Joliet, IL 60432
Phone: (815) 724-3820
Window: 8:00 am—4:30 pm
Phone: 9:00 am—4:25 pm

For water and / or sewer maintenance questions or report a water main break contact:
City of Joliet—Dept. of Public Utilities
Phone: (815) 724-4220 (24 Hours)

To report street light outages (please provide pole type and pole number) contact:
City of Joliet—Dept. of Public Works
Phone: (815) 724-4200
Email: publicworks@jolietcity.org
Phone Hours: 8:00 am—4:30 pm

To report a pothole contact:
City of Joliet—Roadways Department
Phone: (815) 724-3650
Phone Hours: 7:00 am—3:30 pm

To request a rain barrel contact:
Ann Grooms
Phone: (815) 724-4230
Email: agrooms@jolietcity.org
Phone Hours: 8:00 am—4:30 pm

City of Joliet
Department of Public Utilities
www.jolietwater.com
921 E. Washington Street
Joliet, IL 60433
Phone: (815) 724-4230
Fax: (815) 723-7770
Email: agrooms@jolietcity.org

JOLIET

Rain Barrel Program

City of Joliet
Department of Public Utilities
www.jolietwater.com

City of Joliet
Rain Barrel Program

Rain Barrels are Making a Comeback!

Rain barrels have been used for centuries to collect and store rain water. In today's troubled economy, rain barrels are making a comeback for economical as well as ecological reasons.

One inch of rain on a 1,000 square foot horizontal roof yields 600 gallons of rainwater.

Why Should I Collect and Store Rain?

- **Conserve drinking water resources.** 30%-40% of our daily water use is for lawn and garden care. Harvesting rain water decreases the amount of drinking water used to water lawns and plants—Saving Money.
- **Decrease water and sewer bills.** Less water will be needed from the municipal water supply thereby reducing your water bill—Saving Money.
- **Reduce storm water management issues.** Storm water runoff is the leading type of residential non-point source pollution (http://www.epa.gov/owow/nps/qa.html) entering local waterways.
- **Utilize higher quality water for plants.** Unlike treated water that is softened with dissolved minerals and chlorine, rainwater is naturally soft. The water stored in a rain barrel is better than municipal water for washing cars and watering indoor and outdoor plants.
- **Reduce possible yard and / or basement flooding.** Rain barrels collect water that could otherwise contribute to the flooding of your property.

Do you love having a rain barrel but hate the way it looks?

Take the Rain Barrel Decorating Challenge!

Be Creative...Make it a Family Project...Have Fun

About the program:

The City of Joliet, Department of Public Utilities, is giving a white 55-gallon barrel to City of Joliet Water and Sewer Customers FREE of charge on a first-come, first-serve basis. These barrels are inexpensive to modify and install. Details on parts needed to modify and instructions to assemble a rain barrel are available at the following website:

http://www.epa.gov/region3/p2/make-rainbarrel.pdf

Decorating Challenge:

Decorate your rain barrel and send us a picture. We will select one rain barrel picture a month to be displayed on the City of Joliet website as "Best on the Block."

You can decorate your new rain barrel or give your old one a new face-lift. All rain barrels must be covered so as to be child-proof and mosquito proof.

Submissions:

- Send no more than two photos per month
- We accept high-quality prints and digital images (jpeg format)
- Please include your name, address, daytime phone number, and water/sewer billing account number. Feel free to include a sentence or small paragraph describing your design.
- Photos must be of your own rain barrel, on your property, and must be painted by you or a family member.
- Send entries via mail or email. All photos received by the 25th of each month will be looked at and one will be chosen to be displayed on the City of Joliet website as "Best on the Block." We regret that we cannot return any materials mailed in.

Mail: City of Joliet Dept. of Public Utilities
"Best on the Block"
921 E. Washington St.
Joliet, IL 60433

Email: agrooms@jolietcity.org

Photo Guidelines / Tips:

- Outdoor photos are best in early morning, late afternoon, or on hazy days. Avoid shooting in bright sunlight.
- Don't use special effects or shapes in cropping, and make sure your camera's time/date stamp is turned off.

Rain Gardens Brochure

Frequently Asked Questions

How long does water stay in a rain garden?

If designed and installed correctly, rain gardens typically do not have standing water for more than 48 hours. Be sure to test the soil type and infiltration rate before beginning your rain garden. Rain gardens may not be appropriate for all locations, such as high water tables, clay soils, and bedrock locations which may inhibit the infiltration.

Are rain gardens breeding areas for mosquitoes?

To reproduce, mosquitoes require 7 to 12 days of standing water to lay and hatch eggs. There is rarely standing water long enough in a well-designed rain garden to allow mosquitoes to reproduce. In fact, rain gutters on homes are much more likely to produce mosquitoes than a rainwater garden.

Can the water in rain gardens be a hazard for small children?

During storms rain gardens can fill with standing water but this is typically no more than 18". This water will begin to recede immediately after the rain has stopped, emptying in a matter of minutes or hours.

What happens to the plants when we have a dry period?

Native plants can live and thrive in a range of weather conditions, providing deep root structures. Those that are used to having their "toes" wet are placed in the lowest part of the garden and can withstand wet and some dry periods. Plants that like drier soil are placed on the banks of the garden and can withstand some wet and very dry conditions.

How large must a rain garden be to work?

Any water that seeps into the ground instead of running into a storm drain or toward our lakes, rivers, and creeks helps water quality. Rain gardens of any size will have a positive impact.

Where can I get more information or provide comments?

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Phone Hours: 8:00 am—4:30 pm

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City of Joliet
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www.jolietwater.com
921 E. Washington Street
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Phone: (815) 724-4230
Fax: (815) 723-7770
Email: agrooms@jolietcity.org

JOLIET

Rain Garden

Tapping into nature's rain drains… One flower at a time

City of Joliet
Department of Public Utilities
www.jolietwater.com

A Beautiful Solution to Water Pollution

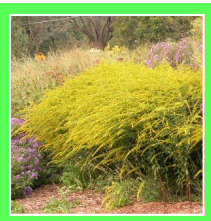
What is a rain garden?

A rain garden is a shallow, constructed depression that is planted with deep-rooted native plants and grasses. It is located in your landscape to receive runoff from hard surfaces such as a roof, a sidewalk, and a driveway. Rain gardens slow down the rush of water from these hard surfaces, holds the water for a short period of time, and allows it to naturally infiltrate into the ground.

A rain garden can be thought of as a personal water quality system because it filters the runoff from your roof and lawn and recharges the drinking water supplies and aquifers while adding beauty to your yard and neighborhood. By redirecting this water you are conserving municipal water resources by reducing the need for irrigation and saving yourself money.

What makes a rain garden different from any other perennial garden?

A rain garden is bowl or saucer shaped, not mounded or flat like other perennial gardens. It is not just a pretty garden, it is specifically designed with deep, loose soil to collect and absorb rain that would otherwise run off your property, and / or to solve wet spot problems where water is already collecting.



Native Plants

This plant list includes plants that can tolerate wet, moderately moist, and dry periods. Most of the plants are native species and are known for attracting butterflies and hummingbirds. Call your local nursery and garden center to check availability or for other plant suggestions.

Full Sun

Swamp Milkweed *(Asclepias incarnata)*
Sneezeweed *(Heleniums)*
New England Aster *(Aster)*
Blue Flag Iris *(Iris Versicolor)*
Mountain Mint *(PycnathemumVirginianum)*

Half Sun to Part Shade

Blazing Star *(Liatris)*
Black-eyed Susan *(Rudbeckia)*
Goldenrod *(Solidago Rugosa)*
Brown Fox Sedge *(Carex Vulpinoidea)*
Common Iron Weed *(Vernonia Fasciculata)*

Rain Garden Links

The following links will give you all the information you need to design and plant your very own rain garden including a How-To Manual for Homeowners.

http://www.raingardennetwork.com

http://clean-water.uwex.edu/pubs/pdf/home.gardens.pdf

http://www.epa.gov/nps/toolbox/other/cwc_raingardenbrochure.pdf

http://www.mobot.org/gardeninghelp/plantfinder/factsheet.asp?code=50

http://www.dnr.state.wi.us/org/water/wm/dsfm/shore/documents/rgmanual.pdf

http://www.standingupforillinois.org/cleanwater/rg_indez.php

http://docs.google.com/gview?a=v&g=cashe:rHDJ6ro68iUJ:www.ahs.org/040329_TAGrainy_day_gardens.pdf+rain+garden&hl=en&gl=us

Stormwater Runoff Brochure

What can you do?

At Home:

- Keep your vehicles in good condition and fix leaks quickly.
- Carefully follow directions when using lawn and garden chemicals. Sweep any excess fertilizers off driveways and sidewalks so they don't wash down the drains.
- Dispose of household hazardous wastes properly. For assistance with various disposal techniques contact Will County Land Use Services at (815) 727-8834.
- Drain swimming pools to the sanitary system or to a porous surface such as a lawn.

In Your Neighborhood:

- Clear debris and trash from the storm drains and dispose of it properly.
- Participate in river clean-ups in your community.
- Report illegal dumping or accidental spills to the Illinois EPA hotline: (800) 782-7860.

Where can I get more information or provide comments?

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City of Joliet
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921 E. Washington Street
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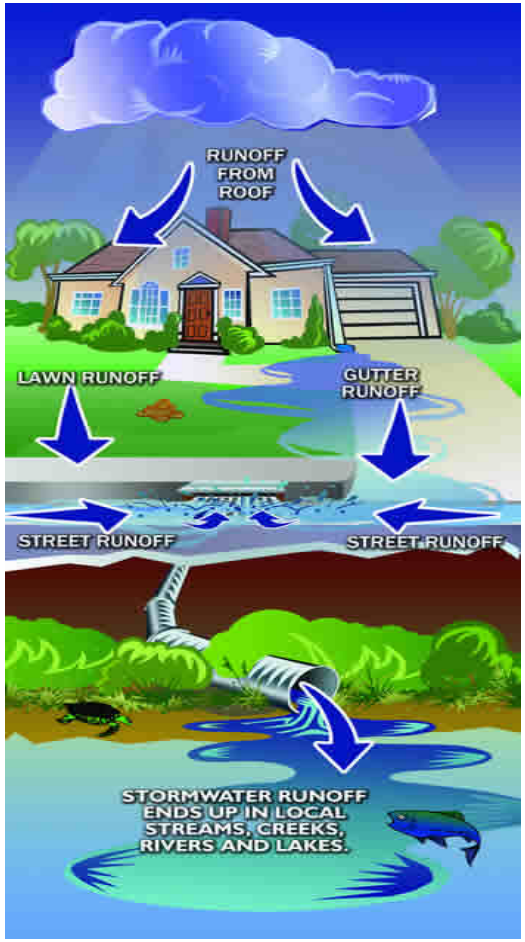
Fax: (815) 723-7770
Email: agrooms@jolietcity.org

JOLIET

Stormwater Runoff



City of Joliet
Department of Public Utilities
www.jolietwater.com

Stormwater Pollution Prevention

Where does the rain go?

To the river! Stormwater is water from precipitation that flows across the landscape and either soaks into the ground or drains into storm sewers. These are the drains you see at street corners or at low points along the sides of your street. Collectively the draining water is called "stormwater runoff," which flows into a river. It picks up pollutants not only in commercial and industrial sites, but in your neighborhood as well!

Where does pollution come from?

Household:

- Vehicles drip fluids (oil, gasoline, antifreeze, brake fluid, etc.) onto paved areas where rain water can carry them into our streams.
- Lawn and garden chemicals, if not used properly, can be washed off our properties when we water or it rains.
- Pet wastes can also be carried away by stormwater and contribute harmful bacteria, parasites, and viruses to our streams and ponds.
- Draining of swimming pools.

Industrial:

- Chemical spills that contain toxic substances, smoke stacks with toxic emissions, and uncovered or unprotected outdoor storage and waste areas can wash into streams.

Construction:

- Uncovered or un-vegetated soil can be washed down storm drains, along with trash and other construction debris.

Protect Local Streams and Rivers—Citizens are Now the Largest Polluters:
Historically sewage treatment plants and other large facilities have been the cause of most water pollution in our area. Federal regulations and improved facilities and policies have reversed this trend. However, as a result of the regulation of these facilities, the largest polluters are now local citizens. Although any one person does not come close to dumping the amount of waste of a large facility, there are a tremendous amount of citizens in the Joliet Area Watershed, and it all adds up! The next level of improving water quality is to increase community awareness.

To Increase Awareness of Water Drainage Systems:
Most polluters do not even realize they're polluting. Many people just don't realize that storm drains funnel directly to the river—there is no treatment plant in between. Therefore, to dump waste down a storm drain is the same as walking up to the banks of a river and dumping the waste right in. Knowing this, most people would not dump used oil down the drains when changing the oil in their car or sweep grass clippings into the drains.

To Promote a Behavior Change in the Community:
Once people realize how the water drainage system works, they may begin to think more about some of their habits. For instance, people may never consider the act of purposely dumping oil directly into a river. However, many cars leak oil onto streets and driveways. During rain events that oil then runs down the driveway and into the storm sewer. By not fixing the leak and allowing the oil to go down the storm drain, people cause the same effect as dumping oil in a river.

For more information:

The Conservation Foundation:
Conservation @ Home Program
Phone: (630) 428-4500
www.theconservationfoundation.org/tcf/ch/

Center for Watershed Protection:
www.stormwatercenter.net

Will County Land Use Services:
Assistance in waste disposal techniques
Phone: (815) 727-8834
www.willcountylanduse.com

For group volunteering to stencil storm drains : Phone: (815) 724-4220

Sponsored in part by Vardal Survey

2012 Joliet Drinking Water Quality Report

2012 JOLIET DRINKING WATER QUALITY REPORT

Este informe contiene información muy importante. Tradúscalo ó hable con alguien que lo entienda bien.

June 2013
Joliet, IL

Where can I get more information or provide comments?

For general questions:
Department of Public Utilities
150 W. Jefferson Street
Joliet, IL 60432
Phone: (815) 724-4230
Hours: 8:00 AM - 4:30 PM

For maintenance questions or to report water emergencies:
Department of Public Utilities
Phone: (815) 724-4220
Hours: 24 Hours

For billing questions:
Customer Service
150 W. Jefferson Street
Joliet, IL 60432
Phone: (815) 724-3820
Phone hours: 8:00 AM - 4:00 PM
Window hours: 8:00 AM - 4:30 PM

EPA Safe Drinking Water Hotline:
Phone: (800) 426-4791
http://water.epa.gov/drink/index.cfm

Dear City of Joliet Water Customers,

The City of Joliet is pleased to report, that in 2012, our drinking water met all standards as established by the USEPA and IEPA. Tap water was tested according to all drinking water regulatory standards and the City is able to report we did not have any violations in the past year.

This Consumer Confidence Report is required by the Safe Drinking Water Act (SDWA) and is intended to inform all water customers about the quality of the drinking water provided to them. Additional information about our water is provided in this report as well as outside sources for additional information.

Your comments about this report are welcomed to help us improve it in future years. Contact information for the City of Joliet Department of Public Utilities can be found in this brochure or by visiting our website at www.jolietwater.com.

Sincerely,

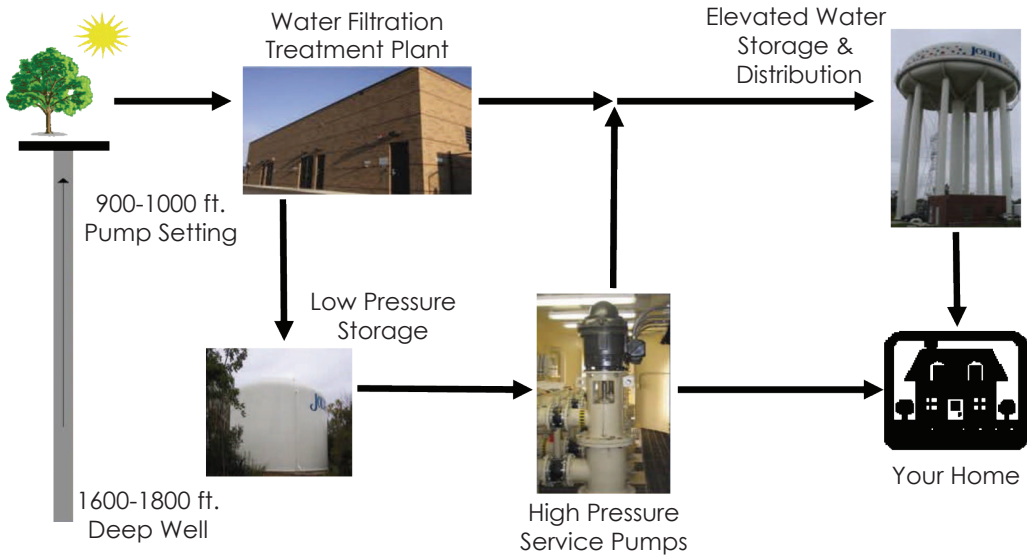
James E. Eggen, P.E.
Director of Public Utilities
City of Joliet

WHERE DOES YOUR WATER COME FROM?

The City of Joliet draws its groundwater supply from twenty-one deep (bedrock) wells (pumping from 1,000 feet below the surface) and five shallow (gravel) wells (pumping from 80 feet below the surface) located throughout the City. The source water naturally contains radium, iron, manganese, fluoride, and other minerals. The City of Joliet has invested in the construction of eleven water treatment plants to remove the naturally occurring radium from the water supply. All water delivered in 2012 met the federal and state guidelines for safe drinking water.

The water is treated using a Hydrous Manganese Oxide (HMO) Treatment process. HMO chemical is added to the water which binds with the radium like a magnet. Then, the treatment equipment removes the combined HMO chemical and radium. This process removes up to 90% of the radium as well as iron and manganese, which contribute to other water quality issues.

WATER SYSTEM DIAGRAM



Before the water is sent to the distribution system it is treated with a blended ortho-polyphosphate for corrosion control. This reduces rusty water in the distribution system and provides a barrier between the water and metal pipes. Sodium hypochlorite (NaClO) is also added for disinfection of the water. Disinfection chemicals are required by the EPA, and sodium hypochlorite, while more expensive, represents the safest disinfection method for City workers and all water customers.

The treated water is then pumped to the distribution system and ultimately to your taps. For more information about the water treatment process or to schedule a group tour of the water supply or wastewater treatment facilities, please contact the Plant Operations Superintendent at (815) 724-3675.

WATER QUALITY

In order to ensure tap water is safe to drink, the USEPA prescribes regulations that limits the amount of certain contaminants in water provided by public water supply systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (800) 426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV / AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA / CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (800) 426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and radioactive materials, and pick up substances resulting from the presence of animals or human activity. Because of this, some level of treatment is required for all water.

Contaminants that may be present in source water include:

- **Microbial contaminants**: such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- **Inorganic contaminants**: such as salts and metals, which may be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- **Pesticides and herbicides**: which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;
- **Organic chemical contaminants**: including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff, and septic systems;
- **Radioactive contaminants**: which may be naturally occurring or be the result of oil and gas production and mining activities.

SYSTEM MANAGEMENT

The Joliet public water supply is owned by the City of Joliet. The City of Joliet Mayor and City Council establish the policies that control the operations of the water supply. The public is welcome to attend regular City Council meetings on the first and third Tuesday of every month at 6:30 p.m. in the City Council Chambers at the Joliet Municipal Building, 150 West Jefferson Street, Joliet, Illinois. If you would like to address the City Council at a meeting, please contact the City Clerk at (815) 724-3780.

SOURCE WATER ASSESSMENT

The Safe Drinking Water Act (SDWA) has established the criteria for determining the vulnerability of source water to potential sources of contamination. To determine Joliet's susceptibility to groundwater contamination, a Well Site Survey and a Source Inventory, performed by Illinois Rural Water Association, inside the recharge areas were conducted. During the survey of Joliet's source water protection area, Illinois EPA and Illinois Rural Water Association staff recorded potential sources, routes or possible problem sites within the minimum setback zones of 200 or 400 feet and within the 1,000 foot maximum setback zones around the wells. The tool used to apply these criteria is the source water assessment. The source water assessments for our water supply was prepared by the Illinois EPA. The City of Joliet's source water assessment is as follows:

"The Illinois EPA considers the gravel wells of this facility to be susceptible to Synthetic Organic Contaminant (SOC) contamination and does not consider the bedrock wells to be susceptible to Inorganic Contaminant (IOC), Synthetic Organic Contaminant (SOC) or Volatile Organic Contaminant (VOC) contamination. This determination is based on a number of criteria including: monitoring conducted at the wells, monitoring conducted at the entry point to the distribution system, the available hydrogeologic data on the wells, and the land-use activities in the recharge area of the wells." The Illinois Environmental Protection Act established minimum protection zones for Joliet's active community water supply wells. The twenty-one bedrock wells have minimum setback zones of 200 feet and the five gravel wells have minimum setback zones of 400 feet. These minimum protection zones are regulated by the Illinois EPA. In addition to the minimum setback zones, five-year recharge areas have been delineated for the five gravel wells. To request additional information on our community's water supply source water assessment, please contact the Department of Public Utilities at (815) 724-4220 or via our website at www.jolietwater.com.

GLOSSARY OF TERMS

N/A	not applicable	mg/L	milligrams per liter	pCi/L	picocuries per liter, used to measure radioactivity
µg/L	micrograms per liter	ppb	parts per billion	ppm	parts per million; or one ounce in 7,350 gallons of water

AL	Action Level, or the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MCL / SMCL	Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. A Secondary MCL is provided as a goal and is not enforceable.
MCLG	Maximum Contaminant Level Goal, or the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MRDL	Maximum Residual Disinfectant Level, or the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal, or the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
HMO	Hydrous Manganese Oxide, or the treatment chemical used for the removal of radium from drinking water.
EPA	Environmental Protection Agency, or the regulatory agency which establishes standards for drinking water at the Federal level (USEPA) or at the State level (IEPA).

LEAD AND COPPER

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, metals from pipes and brass faucets will leach into the water. You can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may choose to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the USEPA's Safe Drinking Water Hotline (800) 426-4791 or at http://water.epa.gov/drink/index.cfm.

LEAD AND COPPER	MCLG	AL	90TH PERCENTILE	NO. SITES OVER AL	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Lead	0	15 ppb	.00811 ppb	1	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	1.3	1.3 ppm	0.556 ppm	0	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems

STATE REGULATED CONTAMINANTS

In addition to enforcing the Federal Safe Drinking Water Act, the Illinois EPA enforces all state regulations. Iron and manganese stain bathroom fixtures and impart objectionable tastes to water in high concentrations. Sodium in drinking water with a concentration greater than 20 mg/l is of concern to persons on a sodium restricted diet of 500 mg per day or lower. For these reasons, the Illinois EPA has elected to regulate these contaminants.

STATE REGULATED CONTAMINANTS (The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.)	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Sodium There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium restricted diet, you should consult a physician about this level of sodium in the water.	83	27 - 83	N/A	N/A	ppm	No	Erosion of naturally occurring deposits: Used in water softener regeneration
Iron This contaminant is not currently regulated by USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.	0.301	0 - 0.301	N/A	1.0	ppm	No	Erosion of natural occurring deposits

INORGANIC CHEMICALS (IOCs)

Inorganic chemicals (IOCs) include salts, metals, minerals, and nutrients that can be naturally occurring or which can result from storm water runoff, industrial or domestic wastewater discharges, or farm activities. Because our source of drinking water is groundwater, a significant amount of naturally occurring minerals are dissolved in the water. These dissolved minerals can account for the "hardness" of the water. Joliet water has an average hardness of 300 parts per million as calcium carbonate (or approximately 18 grains per gallon).

INORGANIC CONTAMINANTS	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Barium	0.0517	0.00953 - 0.0517	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	1.32	0.67 - 1.32	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	0	0 - 0	10	10.0	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage, Erosion of natural deposits

DISINFECTANTS AND DISINFECTION BY-PRODUCTS

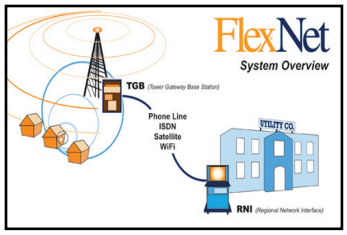
Disinfection of drinking water is one of the major public health advances in the 20th century. One hundred years ago, typhoid and cholera epidemics were common throughout American cities and disinfection was a major factor in reducing these epidemics. However, the disinfectants themselves can react with naturally occurring materials in the water to form unintended by-products that may pose health risks.

DISINFECTANTS	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MRDLG	MRDL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Chlorine	1.83	.167 - 1.83	4	4	ppm	No	Water additive used to control microbes

RADIONUCLIDES

Radionuclides are man-made or natural elements that emit radiation. A picocurie per liter is a unit of radioactivity. A curie is the amount of radioactivity in a gram of radium. A picocurie is one trillionth of a curie.

RADIOACTIVE CONTAMINANTS	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Uranium	7.152	1.192 - 7.152	0	30	µg/l	No	Erosion of natural deposits
Gross alpha excluding radon & uranium	6	0 - 6.5	0	15	pCi/L	No	Erosion of natural deposits
Combined radium 226/228	4	.8 - 4.4	0	5	pCi/L	No	Erosion of natural deposits



Water Meter Upgrades:

All residential and commercial customers have a water meter installed at the premises that is connected to the City's water system. With the old system, most customers have some type of remote reading device installed which allows the City's meter reader to obtain the water meter readings without entering the home or building. However, this system still required a person to walk to each address and collect the meter reading at least once a month. If it could not be read, this often meant bills would have estimated reads. The City has been upgrading to an automatic meter reading (AMR) system. This allows the meter to be read every day by radio communication without sending the meter reader to each address. In addition for better management of the water system, this AMR method allows for more accurate billing and eliminates the need for estimated billing.

Leak Detection:

Check to see if your meter has a "leak detector" on it. It is a small dial or indicator to show the meter is moving. If you suspect you have a leak in your home or business a leak detector is very useful in problem solving. When you are sure no water is being used, check the dial on the water meter and make sure it is not turning. The slightest movement means that water is being registered by the meter. A meter will not turn without water flowing through it. Check for any drips or other signs of leakage. Start with the toilet. You can turn the valve off at the toilet, then check the red dial. Another way to check a toilet for a leak is by placing a dye tablet or food coloring in the tank. Let it sit for a while then look in the bowl. If you see coloring in the bowl, the toilet is leaking past the seal. Continue isolating areas until you have narrowed down the source of the leak.

FREQUENTLY ASKED QUESTIONS FOR EMERGING DRINKING WATER ISSUES

Fluoride:

The addition of fluoride in drinking water is considered one of the top 10 public health achievements of the 20th century. Many ground water systems, like Joliet, have naturally occurring fluoride in the water and subsequently, the City does not add fluoride. The MCLG for fluoride is 4.0 ppm. The EPA has set this level of protection based on the best available science to prevent potential health problems. Some studies have suggested this MCL is too high and a secondary standard (SMCL) of 2.0 mg/L is intended as a guideline in areas which have high levels of naturally occurring fluoride. The level of the SMCL was set based upon a balancing of the beneficial effects of protection from tooth decay and the undesirable effects of excessive exposures leading to discoloration. The EPA is initiating review of the maximum amount of fluoride allowed in drinking water. Future treatment for the removal of fluoride from the City's water is not expected. To read more, visit http://water.epa.gov/drink/contaminants/basicinformation/fluoride.cfm

Hexavalent Chromium (Chromium-6):

Refers to chemical compounds containing Chromium in the +6 oxidation state and is generally a waste product from multiple manufacturing processes. This compound was made famous by the movie *Erin Brockovich*. While some forms of Chromium are beneficial in small amounts, Chromium-6 has been found to be a carcinogen. An MCL of 0.1 ppm is set for total Chromium. While it is not currently regulated, MCLs as low as 0.1 ppb for Chromium-6 have been proposed. Testing of Joliet's multiple well supplies has levels well below these limits.

Endocrine Disruptors (Pharmaceuticals):

Endocrine disruptors are chemicals that may interfere with the body's endocrine system and produce adverse developmental, reproductive, neurological, and immune effects in both humans and wildlife. A wide range of substances, both natural and man-made, are thought to cause endocrine disruption, including pharmaceuticals. Endocrine disruptors may be found in many everyday products - including plastic bottles, metal food cans, detergents, flame retardants, food, toys, cosmetics, and pesticides. There are numerous studies to determine whether exposure to endocrine disruptors may result in human health effects. Research shows endocrine disruptors may pose the greatest risk during prenatal and early postnatal development when organ and neural systems are forming. Surface water supplies are most susceptible to these contaminants. The main source of these contaminants are from the general public disposing of unused medications in the wastewater (toilet) stream. Once introduced in the wastewater, the compounds end up in the surface water supply since they cannot be removed using current wastewater treatment technology. The most important key here is DO NOT dispose of unused medications in the sink or toilet. Since Joliet currently uses deep aquifer wells for its water supply, our drinking water is not subject to this. *All unused over-the-counter (OTC) and prescription medications may be disposed of at a City of Joliet Police Station drop box. Some pharmacies accept unused OTC medications, please contact them individually for details.*

Future Water Supply(ies):

While Joliet currently gets all of its water from groundwater supplies, the backbone of our supply is deep well aquifers (over 1,000 feet deep). At this time, the deep aquifers represent the highest quality water for the City. The water level of the aquifers continue to drop and there are concerns by some experts that wells will go dry in the future. It is a reality that the groundwater supply will need to be supplemented with an additional surface water supply. The addition of surface water supplies then allows for new contaminants to be introduced into the water system. The most important thing that can be done now is to conserve your current water usage. The need for conservation is real and participation is needed by all water customers. Water conservation not only reduces your current water bill, it also keeps the overall water rate low by deferring the costs to develop new supplies. To learn more, visit the City of Joliet website or search the internet with the key words "Water Conservation".

Thank you for your cooperation in watering your lawn according to the water conservation program.

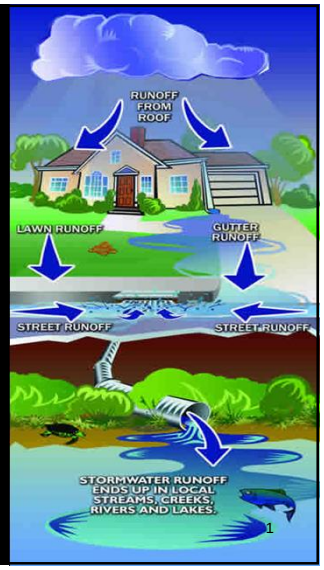
The following water restrictions are in place for the City of Joliet water customers year-round per City of Joliet Code of Ordinances, Sec. 31-126:

Lawn watering may only occur between 6:00 a.m. and 10:00 a.m. or 6:00 p.m. and 10:00 p.m. at even numbered addresses on even numbered days and at odd numbered addresses on odd numbered days. No watering is allowed at all at even numbered addresses on odd numbered days or at odd numbered addresses on even numbered days. The only exception to the odd/even water restriction applies to homeowners and/or businesses who intend to install sod. To receive proper permit for this exception, customers should contact the Department of Public Utilities, Monday through Friday between the hours of 8:00 a.m. and 4:30 p.m. at (815) 724-4220, prior to sod installation. Your cooperation in not watering your lawn outside the restricted hours is necessary because of the large volumes of water used and to maintain water reserves for public health needs and fire protection. There is no restriction in filling swimming pools, watering trees, shrubs, flowers, or vegetable gardens.

Visit our website at www.jolietwater.com

Public Television Advertisement-Stormwater Runoff

Stormwater Runoff



Public Utilities • City of Joliet
921 E. Washington St
815.724.4230 • www.jolietwater.com

Stormwater Runoff

Where does the rain go?

To the river!

Stormwater is water from precipitation that flows across the landscape and either soaks into the ground or drains into storm sewers. These are the drains you see at street corners or at low points along the sides of your street.

Stormwater Runoff

Where does the rain go?

Collectively the draining water is called ñstormwater runoff,ò which flows into a river. It picks up pollutants not only in commercial and industrial sites, but in your neighborhood as well!

Stormwater Runoff

Stormwater Pollution Prevention

- Protect Local Streams and Rivers—Citizens are Now the Largest Polluters
- Increase Awareness of Water Drainage Systems
- Promote a Behavior Change in the Community

Stormwater Runoff

Stormwater Pollution Prevention

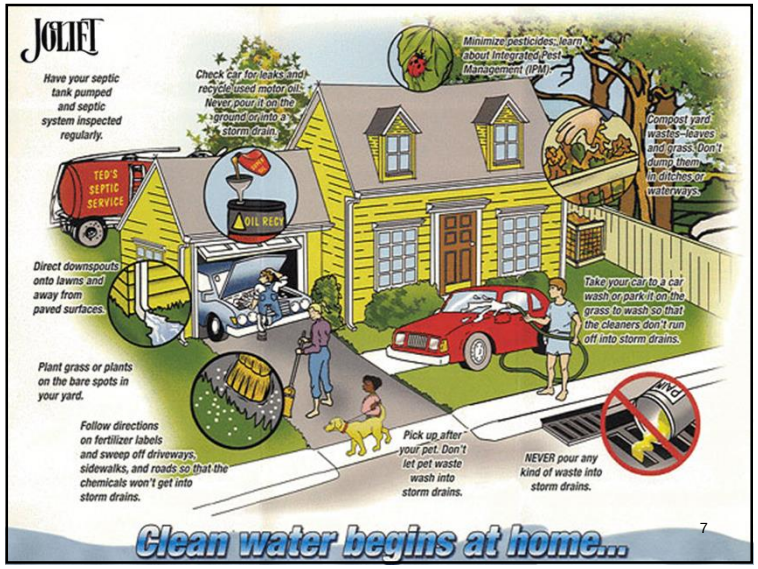
Protect Local Streams and Rivers
(Citizens are Now the Largest Polluters)

Historically sewage treatment plants and other large facilities have been the cause of most water pollution in our area. Federal regulations and improved facilities and policies have reversed this trend. However, as a result of the regulation of these facilities, the largest polluters are now local citizens. Although any one person does not come close to dumping the amount of waste of a large facility, there are a tremendous amount of citizens in the Joliet Area Watershed, and it all adds up! The next level of improving water quality is to increase community awareness.

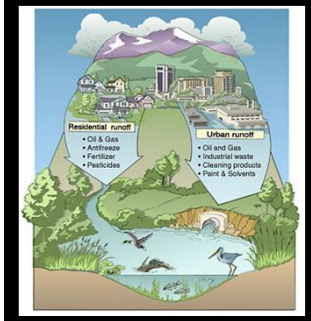
Stormwater Runoff

To Increase Awareness of Water Drainage Systems:

Most polluters do not even realize theyôre polluting. Many people just donô realize that storm drains funnel directly to the riverð there is no treatment plant in between. Therefore, to dump waste down a storm drain is the same as walking up to the banks of a river and dumping the waste right in. Knowing this, most people would not dump used oil down the drains when changing the oil in their car or sweep grass clippings into the drains.



Stormwater Runoff



To Promote a Behavior Change in the Community:

Once people realize how the water drainage system works, they may begin to think more about some of their habits. For instance, people may never consider the act of purposely dumping oil directly into a river. However, many cars leak oil onto streets and driveways. During rain events that oil then runs down the driveway and into the storm sewer. By not fixing the leak and allowing the oil to go down the storm drain, people cause the same effect as dumping oil in a river.

What can you do?

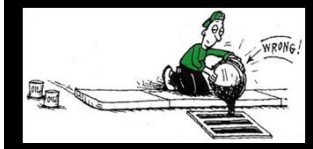
At Home:

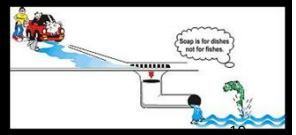
- Keep your vehicles in good condition and fix leaks quickly.
- Carefully follow directions when using lawn and garden chemicals. Sweep any excess fertilizers off driveways and sidewalks so they don't wash down the drains.
- Dispose of household hazardous wastes properly. For assistance with various disposal techniques contact Will County Land Use Services at (815) 727-8834.
- Drain swimming pools to the sanitary system or to a porous surface such as a lawn.

What can you do?

In Your Neighborhood

- Clear debris and trash from the storm drains and dispose of it properly.
- Participate in river clean-ups in your community.
- Report illegal dumping or accidental spills to the Illinois EPA hotline: (800) 782-7860.





For group volunteering to stencil storm drains:

Contact Lisa Dorothy at (815) 724-4220

Additional Stormwater Runoff Resources

The Conservation Foundation:
Conservation @ Home Program
Phone: (630) 428-4500
www.theconservationfoundation.org/tcf/ch/

Center for Watershed Protection:
www.stormwatercenter.net

Will County Land Use Services:
Assistance in waste disposal techniques
Phone: (815) 727-8834
www.willcountylanduse.com

Where can I get more information or provide comments?

For questions about your water bill, change the name on an account or set up automatic billing contact:
City of Joliet—Customer Service
150 W. Jefferson Street
Joliet, IL 60432
Phone: (815) 724-3820
Window Hours: 8:00 amð 4:30 pm
Phone Hours: 9:00 amð 4:00 pm

Where can I get more information

For water and / or sewer maintenance questions or report a water main break contact:
City of Joliet—Dept. of Public Utilities
Phone: (815) 724-4220 (24 Hours)

Where can I get more information

To report street light outages (please provide pole type and pole number) contact:
City of Joliet—Dept. of Public Works
Phone: (815) 724-4200
Email: publicworks@jolietcity.org
Phone Hours: 8:00 amð 4:30 pm

Where can I get more information

To report a pothole contact:
City of Joliet—Roadways Department
Phone: (815) 724-3650
Phone Hours: 7:00 amð 3:30 pm

Catch Basin Billboard Advertisement

Doing yardwork?

Adopt a catch basin!

JOLIET

THINK GREEN THINK CLEAN!

APPENDIX B: Public Involvement and Participation

Rain Barrel Construction Instructions

Rain Barrel Construction

Determine where you are going to place your rain barrel and if you are going to use flexible downspout or traditional. The example shown uses flexible downspout.

Step 1:
Place flexible downspout over the section you will fit on the top of the barrel.

Step 2:
Trace circle on top of the barrel the dimension of the flexible hose.

Step 3:
Use jigsaw to cut traced circle for downspout. Test fit downspout. (Make additional cut if necessary.)

Step 4:
Trace the end of the flexible downspout onto a piece of screen.

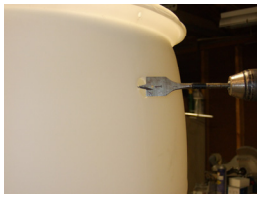
Step 5:
Using scissors or shears cut out the traced circle. Cut about a 1/4" wider than the tracing.

Step 6:
Remove the end of the downspout and extend the tubing. Place the screen inside and replace the end of the downspout.

Step 7:
Measure and mark approximately 4" down from the top for placement of the overflow elbow.

Step 8:
Measure and mark approximately 4" up from the bottom for the placement of the spigot.

Step 9:
Using a 15/16" drill bit, press the tip of the drill bit into the top mark on the barrel and drill thru.



Step 10:
Press the tip of the drill bit into the bottom mark on the barrel and drill thru.

Step 11:
Prepare overflow elbow with PVC Cement.

Step 12:
Press elbow into top circle opening. Turn elbow until tight. (Use rag to wipe off excess glue.)

Step 13:
Cut a small circle of screen to place over the overflow elbow. Position hose clamp over screen.

Step 14:
With flat head screwdriver tighten clamp over screen until taught to prevent insects from entering the barrel.

Step 15:
Finished look of screen attachment. The barrel is now ready to paint or if already painted ready to use!

Step 16:
Wrap thread tape around end of spigot.

Step 17:
Attach 3/4" to 1/2" PVC bushing to taped end of spigot. Turn until tight.

Step 18:
Prepare spigot / bushing end with PVC Cement.

Step 19:
Push spigot/ bushing end into bottom hole of barrel.

Step 20:
Turn spigot/ bushing until tight. Use rag to wipe off any excess glue.

Step 21:
Let the glue set and then water test the barrel to check for leaks.

Parts needed:

1 - 3/4” to 1/2” PVC bushing
1 - 3/4” male threaded to PVC pipe 90 degree elbow
1 - 1/2” hose spigot
1 - flexible downspout
1 - small container of PVC cement
1 - 3/4”-1 3/4” hose clamp
1 - container of threaded tape
Screen

Tools needed:

Jigsaw
Drill
15/16” spade drill bit
Scissors / shears to cut screen
Rag
Flat head screwdriver

Where can I get more information or provide comments?

For questions about your water bill, change the name on an account or set up automatic billing contact:
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Phone: (815) 724-3820
Window: 8:00 am—4:30 pm
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To report a pothole contact:
City of Joliet—Roadways Department
Phone: (815) 724-3650
Phone Hours: 7:00 am—3:30 pm

To request a rain barrel contact:
Ann Grooms
Phone: (815) 724-4230
Email: agrooms@jolietcity.org
Phone Hours: 8:00 am—4:30 pm

City of Joliet
Department of Public Utilities
www.jolietwater.com
921 E. Washington Street
Joliet, IL 60433
Phone: (815) 724-4230
Fax: (815) 723-7770
Email: agrooms@jolietcity.org

JOLIET

Rain Barrel

How to Construct a Rain Barrel

City of Joliet
Department of Public Utilities
www.jolietwater.com

Joliet Job Corps Green Fair/ Earth Expo Flier

Earth Day Every Day

Job Corps

What: Fifth annual Green Fair/Earth Expo at Joliet Job Corps celebrating nature, recycling, alternative energy and Mother Earth.

When: 8:00 to 11:30 a.m. Tuesday, April 29 at Joliet Job Corps Rec Center, 1101 Mills Road, 60433. Contact Jan Larsen at (815) 768-8971 or e-mail Larsen.janette@jobcorps.org for questions.

Details: We have 230 students, 50 of them are on our Green Team, which meets weekly. This year's event will be in a different location, near the back of our building. Students will be split into two groups.

8:00 a.m. Set up your booth.
8:25 a.m. First group attends.
9:35 a.m. Break
9:50 a.m. Speeches by Rita Renwick, Virgil Kemp, Marta Keane, CO Jeff Rolfingsmeier for our Green Team members.
10:20 to 11:30 a.m. Second group attends.
11:30 a.m. Lunch if you would like to stay.

Exhibitors signed up so far: Rita Renwick, Will County Audubon Society; Virgil Kemp, Helpers of Mother Earth; Marta Keane, Will County Green; CO Jeff Rolfingsmeier, Illinois Department of Natural Resources; Will County Forest Preserve District; Mark Sefcik, City of Joliet; Joliet Junior College and Waste Management.

Joliet Junior College Earth Day Events Flier

Dorothy, Lisa M

From: Rafac, Maria Anna <mrafac@jjc.edu>
Sent: Monday, April 21, 2014 4:31 PM
To: Dorothy, Lisa M
Subject: RE: EARTH DAY EXPO

Earth Month 2014

Would you like to know what makes the Campus Center a LEED Gold building? Take a tour this Wednesday!

Did you know JJC has a Fen?
Tour our Natural Areas this Thursday!

Green at JJC

This week we celebrate **EARTH DAY** ***...PLEASE JOIN US!***

Week Four – EARTH DAY

April 21st – 27th

4/22 – EARTH DAY Events

10:00 AM - 2:00 PM
Bridge

Sustainability Exhibitor Expo
JJC and Community

Recycled Art Show

Student Government

Sustainability Poetry Reading
Wordeater

Sign the Sustainability Pledge!
Students for a Sustainable Future

Try some FREEE sustainable snacks!
Students for a Sustainable Future

4/23 - Sustainability Tour of the Campus Center

Maria Anna Rafac, Architecture, Engineering, Construction
10:30 AM & 12:00 PM
Meet in the front of the Campus Center, A-Building Lobby

4/24 - JJC Natural Areas Tour

Andy Neill, Professor of Biology
12:00 – 2:00 PM
Meet at the Cronin School House!

4/25 - SHMEC Student Sustainability Summit

8:30 AM - 2:30 PM
Moraine Valley Community College

4/25, 4/26, 4/27 - Sustainability Leadership Workshop C2C Fellow/Campus to Congress

Friday, Saturday, and Sunday
Moraine Valley Community College

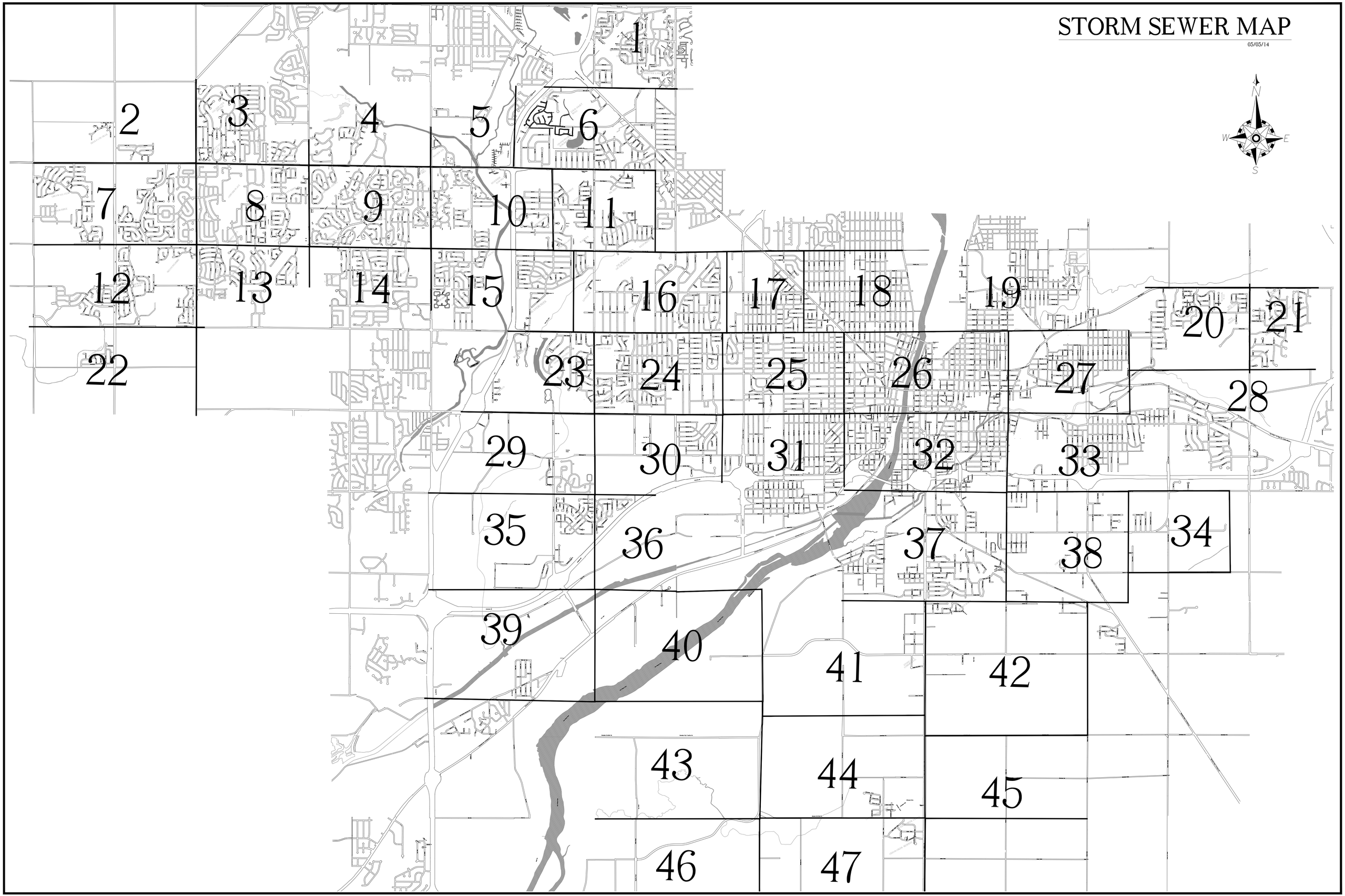
From: Dorothy, Lisa M [mailto:ldorothy@jolietcity.org]
Sent: Monday, April 21, 2014 4:28 PM
To: Rafac, Maria Anna
Subject: RE: EARTH DAY EXPO

APPENDIX C: Illicit Discharge Detection and Elimination

Storm Sewer Map

STORM SEWER MAP

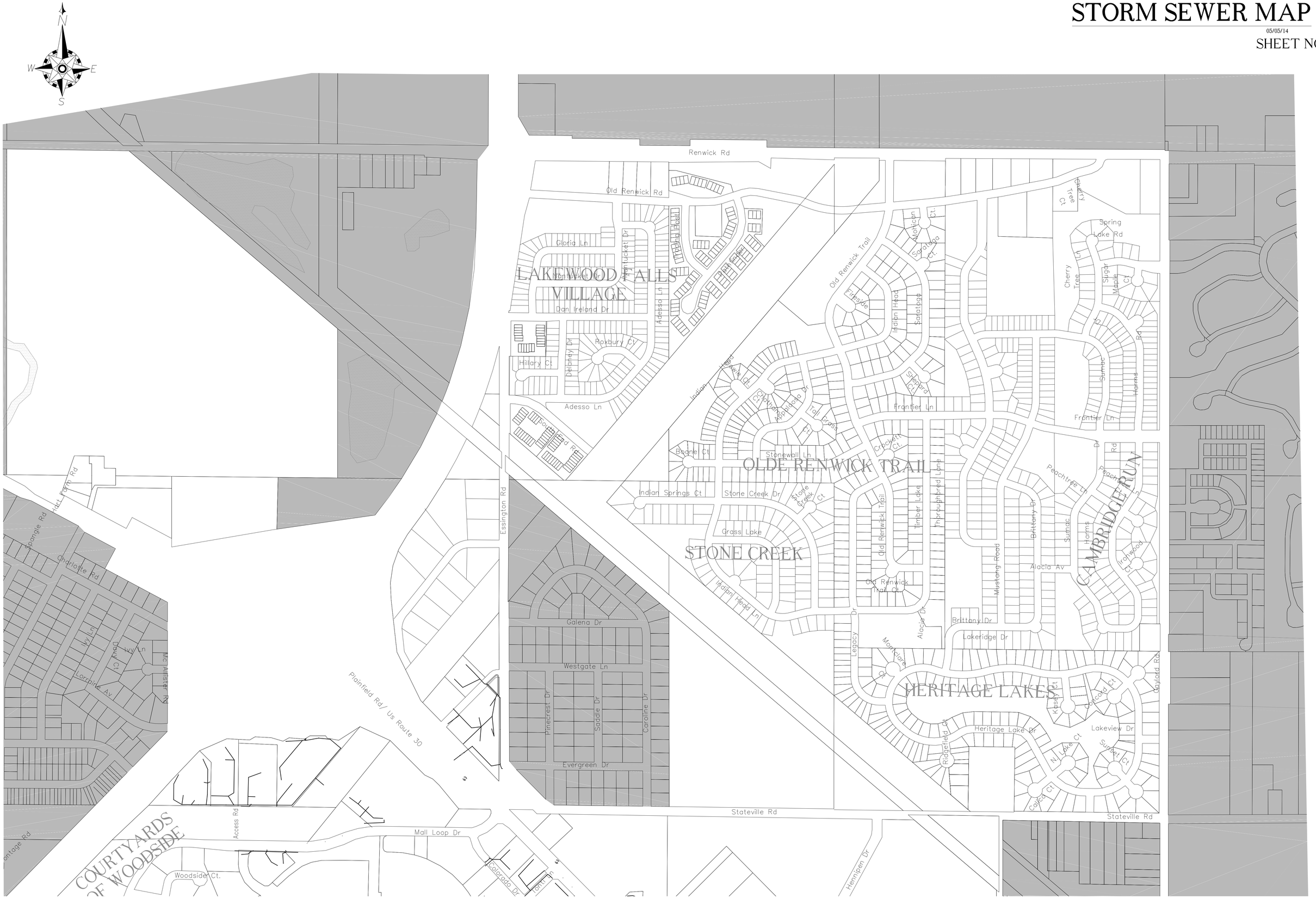
05/05/14



STORM SEWER MAP

05/05/14

SHEET NO. 1



STORM SEWER MAP

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SHEET NO. 2

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SHEET NO. 3

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SHEET NO. 4

STORM SEWER MAP

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SHEET NO. 6

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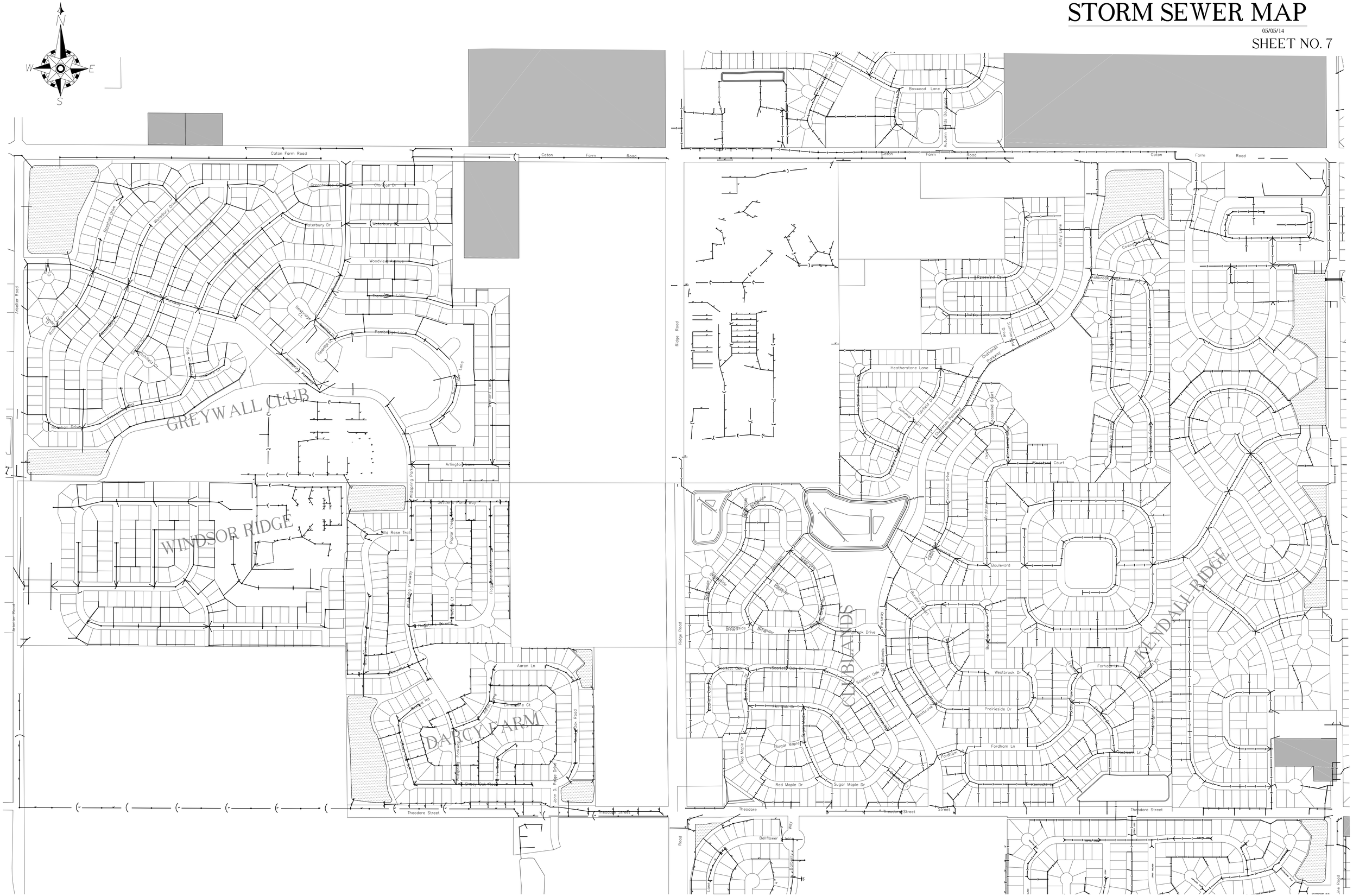

STORM SEWER MAP

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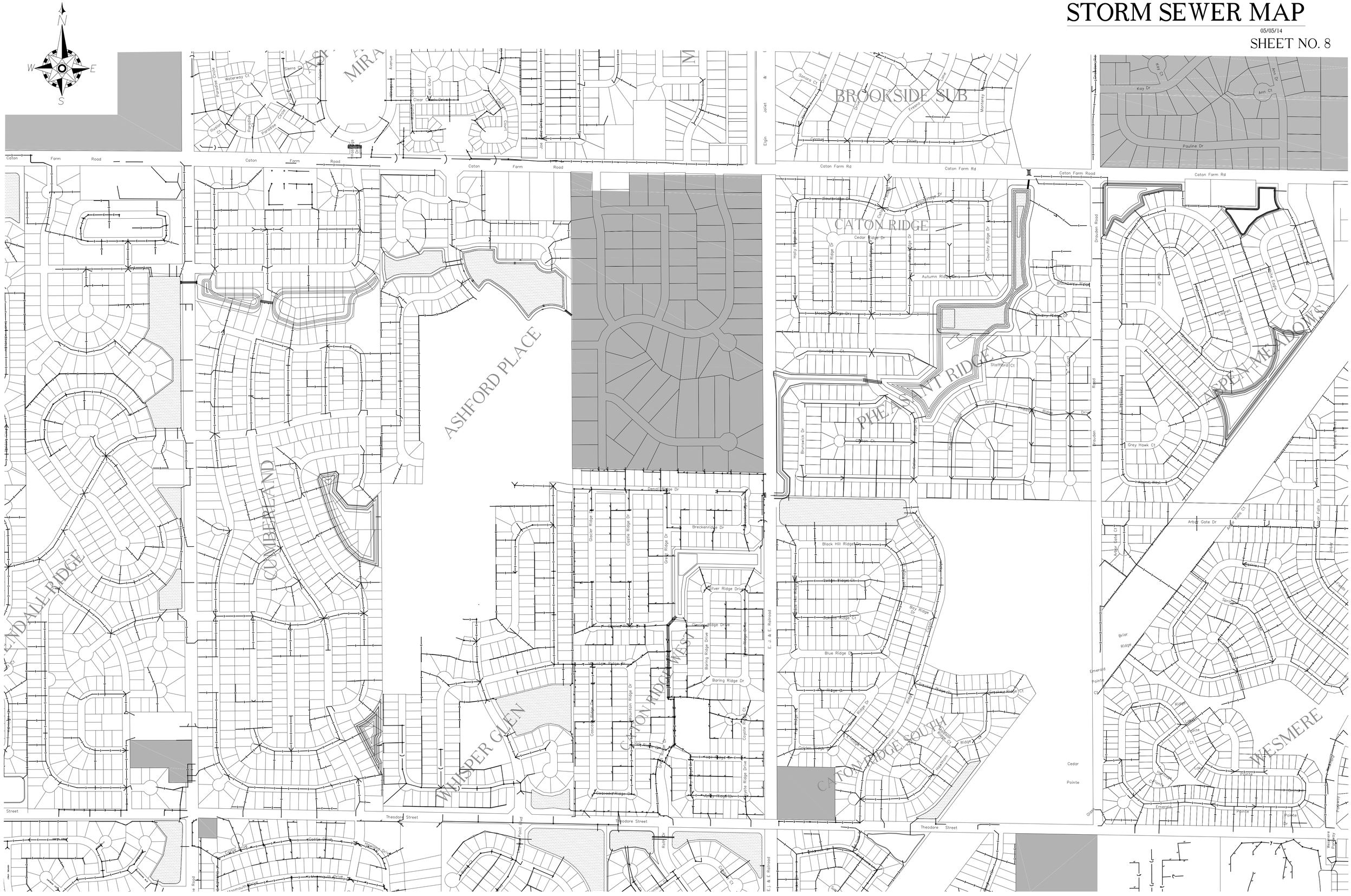

STORM SEWER MAP

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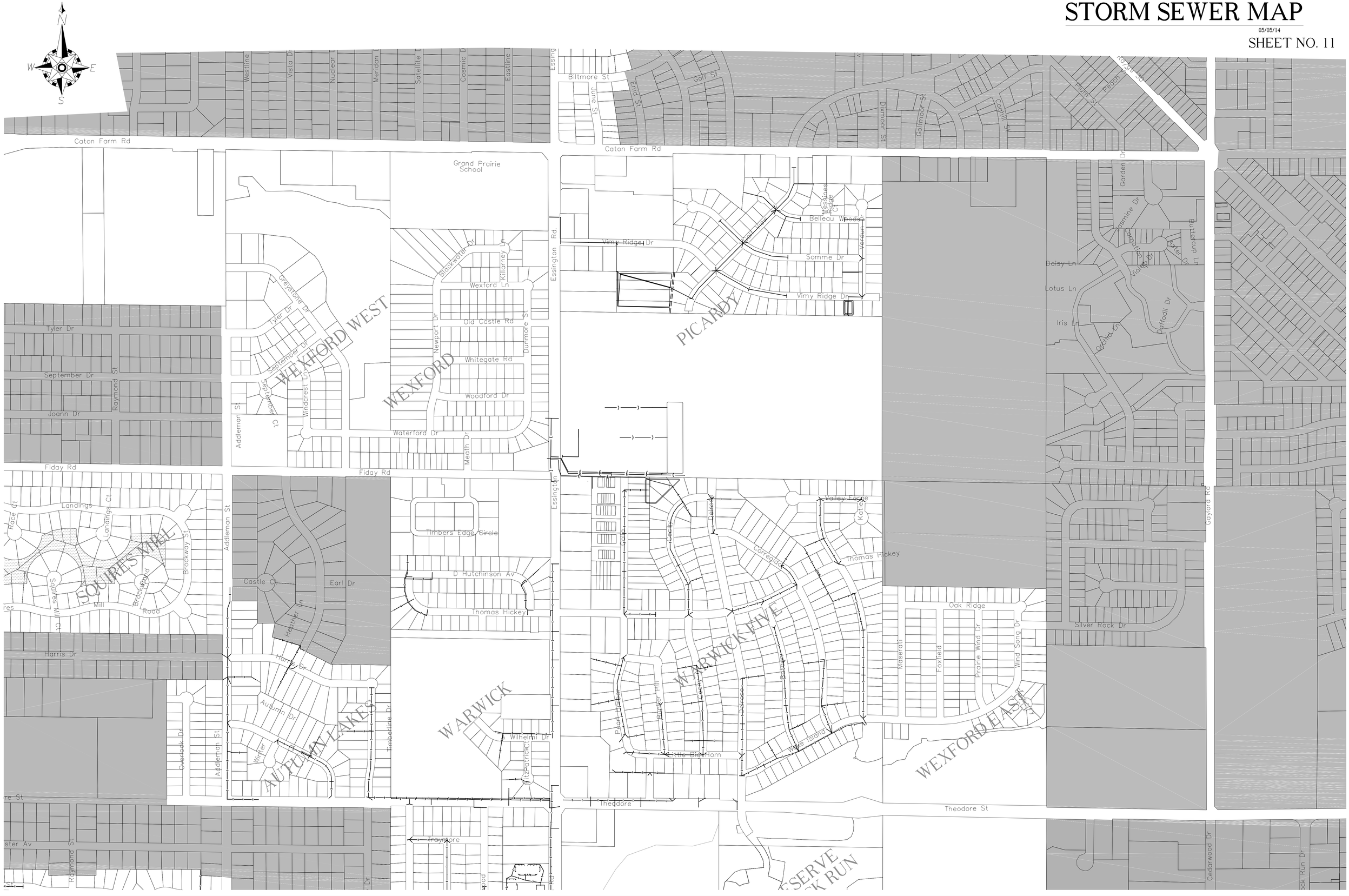

STORM SEWER MAP

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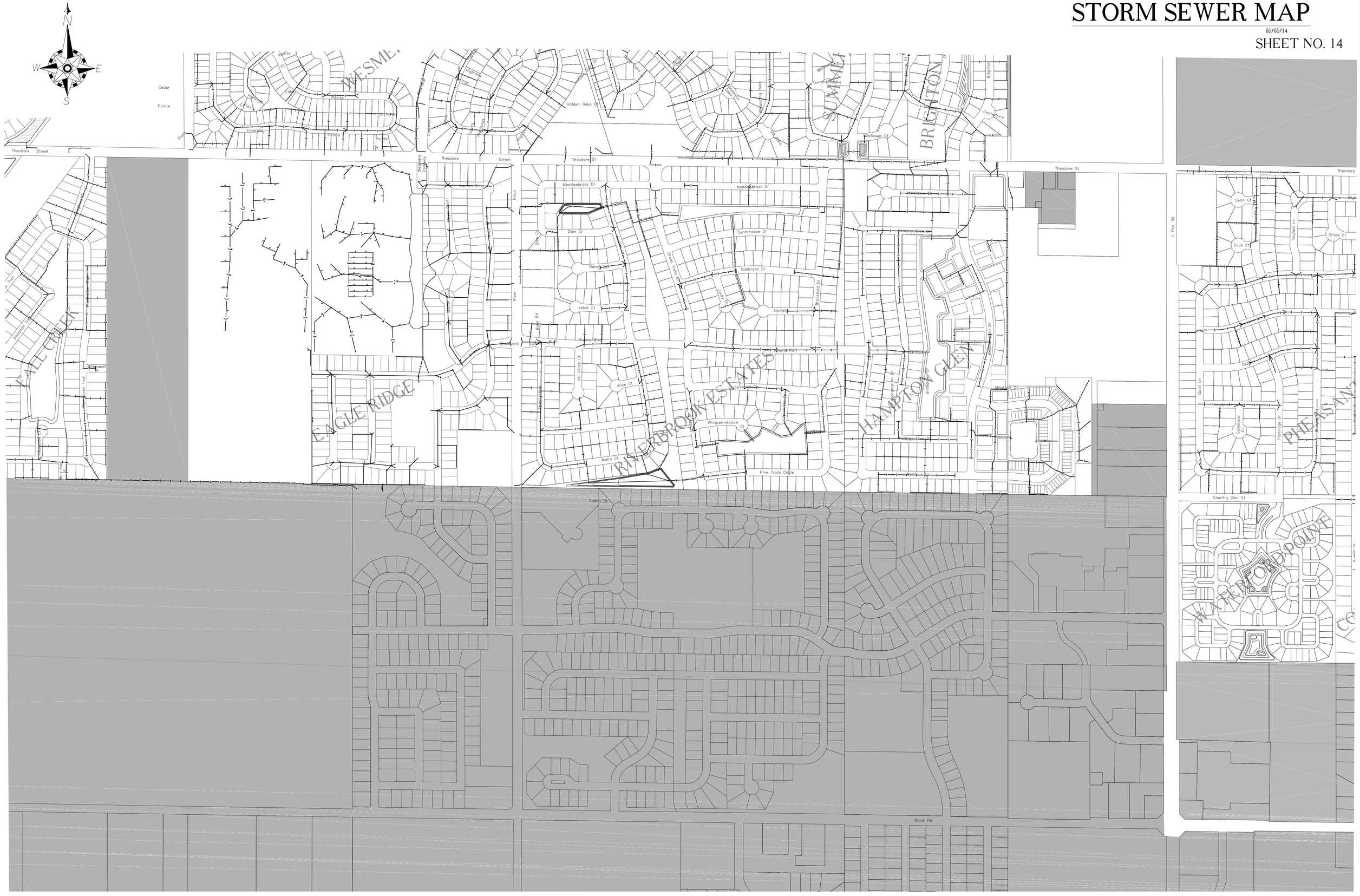

STORM SEWER MAP

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SHEET NO. 15

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SHEET NO. 16

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SHEET NO. 17

STORM SEWER MAP

05/05/14

SHEET NO. 18

STORM SEWER MAP

05/05/14

SHEET NO. 19

STORM SEWER MAP

05/05/14

SHEET NO. 20

N
W
E
S
Us 6/maple Rd/southwest Hwy
Us 6/maple Rd/southwest Hwy
Maple Rd/us 6
Parkwood Dr
Bogdan Ln North
Bogdan Ln South
Cottonwood Rd
Beechwood Rd
Mulberry Rd
Basswood Rd
Parkwood Ct
Tamarack Drive
Arbor Ln
Belmont Ave
Fiesta Dr
Crestwood Dr
Longfield Dr
Longwood Dr
Longwood Ct
Parkwood Ct
Highland Pkwy
Pontiac St
Fox St
Highland Park Rd
Highland Av
Highland Av
Canyon View Lane
Canyon View Ln
Canyon View Cir
Park Meadow Lane
Great Meadow Drive
Saddle Ridge Ct
Saddle Ridge Drive
Timber Springs Drive
Fairfield Drive
Eastview Dr
Sunnyside Ln
Westview Ct
Weston Way
Rockwood Dr
Fleetwood Dr
Golf Road
Hoberg Drive
WESTON WAY
BEE DEE HIGHLANDS
PINE NEEDLE
CHESTNUT POINTE
MAPLE SPRINGS
SPRINGVIEW
EDGECREEK
THUNDERRIDGE
Carol Drive
Tucson Drive
Marilyn Dr
Bisbee Drive
Sedona Ct
Edgecreek Ln
Edgecreek Dr
Edgecreek Ct
Edgecreek Cir
Edgecreek Pl
Edgecreek Way

STORM SEWER MAP

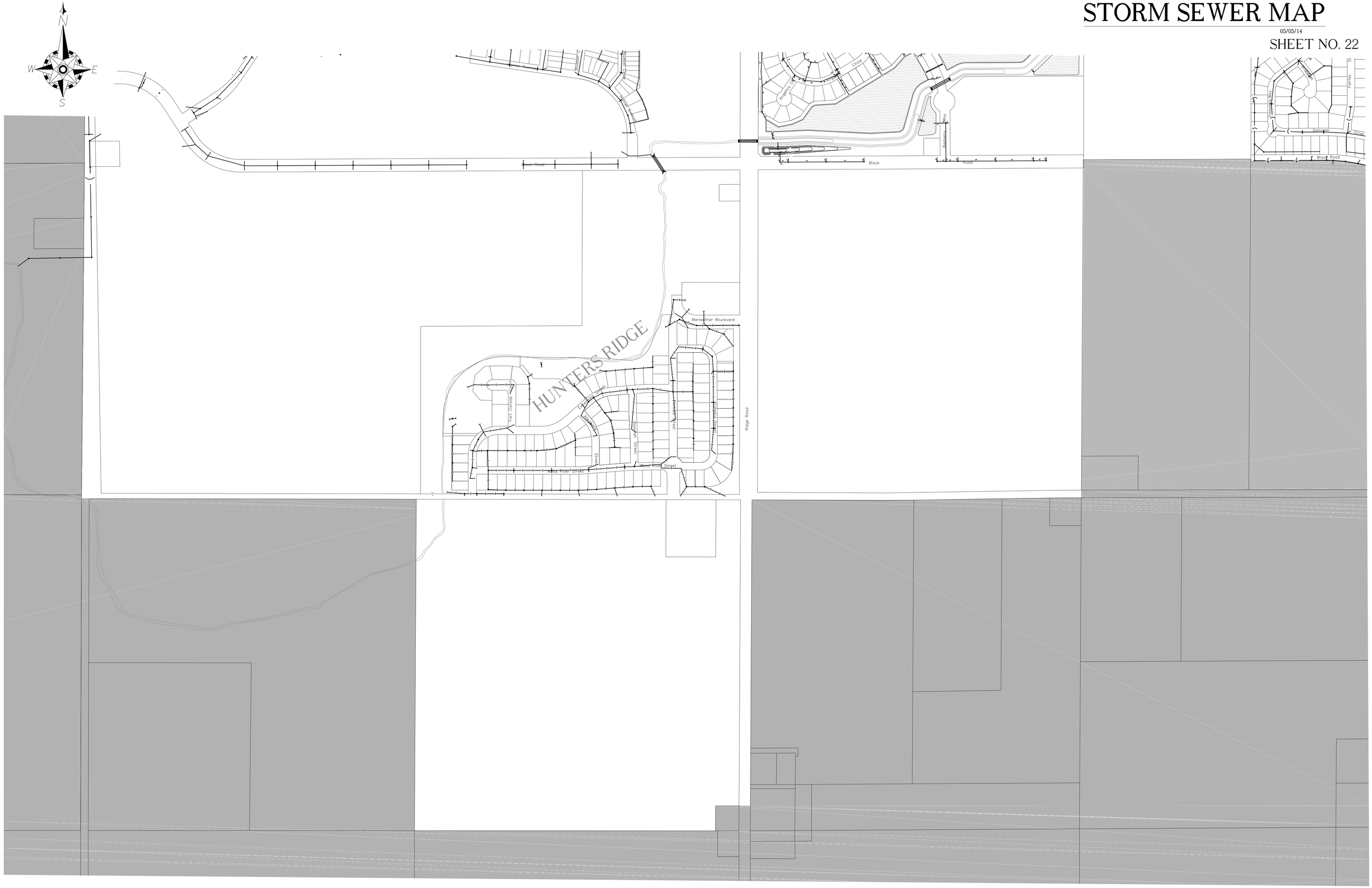
05/05/14

SHEET NO. 21

STORM SEWER MAP

05/05/14

SHEET NO. 22



STORM SEWER MAP

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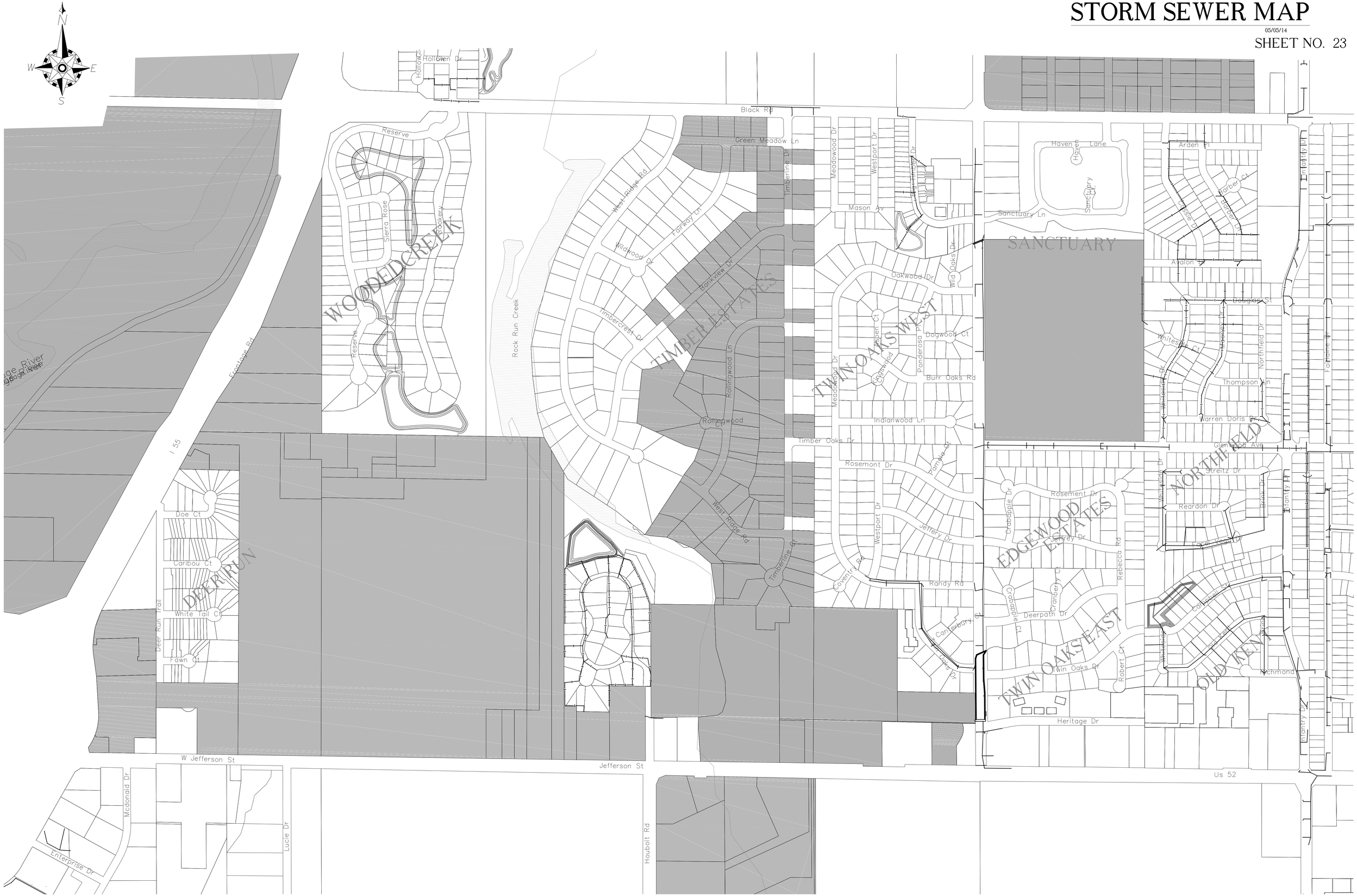

STORM SEWER MAP

05/05/14

SHEET NO. 24

STORM SEWER MAP

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SHEET NO. 25

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SHEET NO. 26

STORM SEWER MAP

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SHEET NO. 27

STORM SEWER MAP

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SHEET NO. 28

STORM SEWER MAP

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SHEET NO. 29

STORM SEWER MAP

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SHEET NO. 30

STORM SEWER MAP

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SHEET NO. 31

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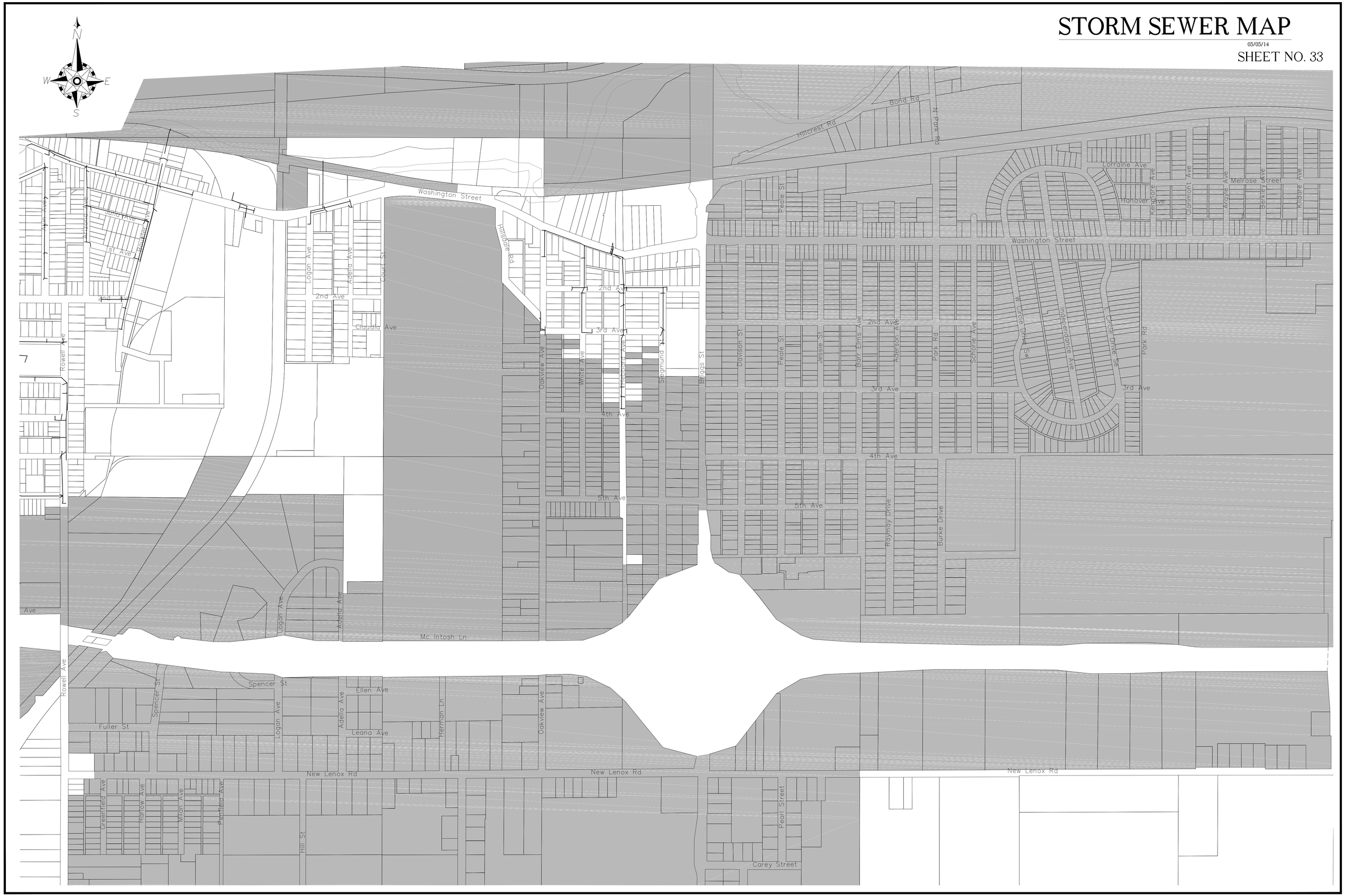
SHEET NO. 32

STORM SEWER MAP

05/05/14

SHEET NO. 33



STORM SEWER MAP

05/05/14

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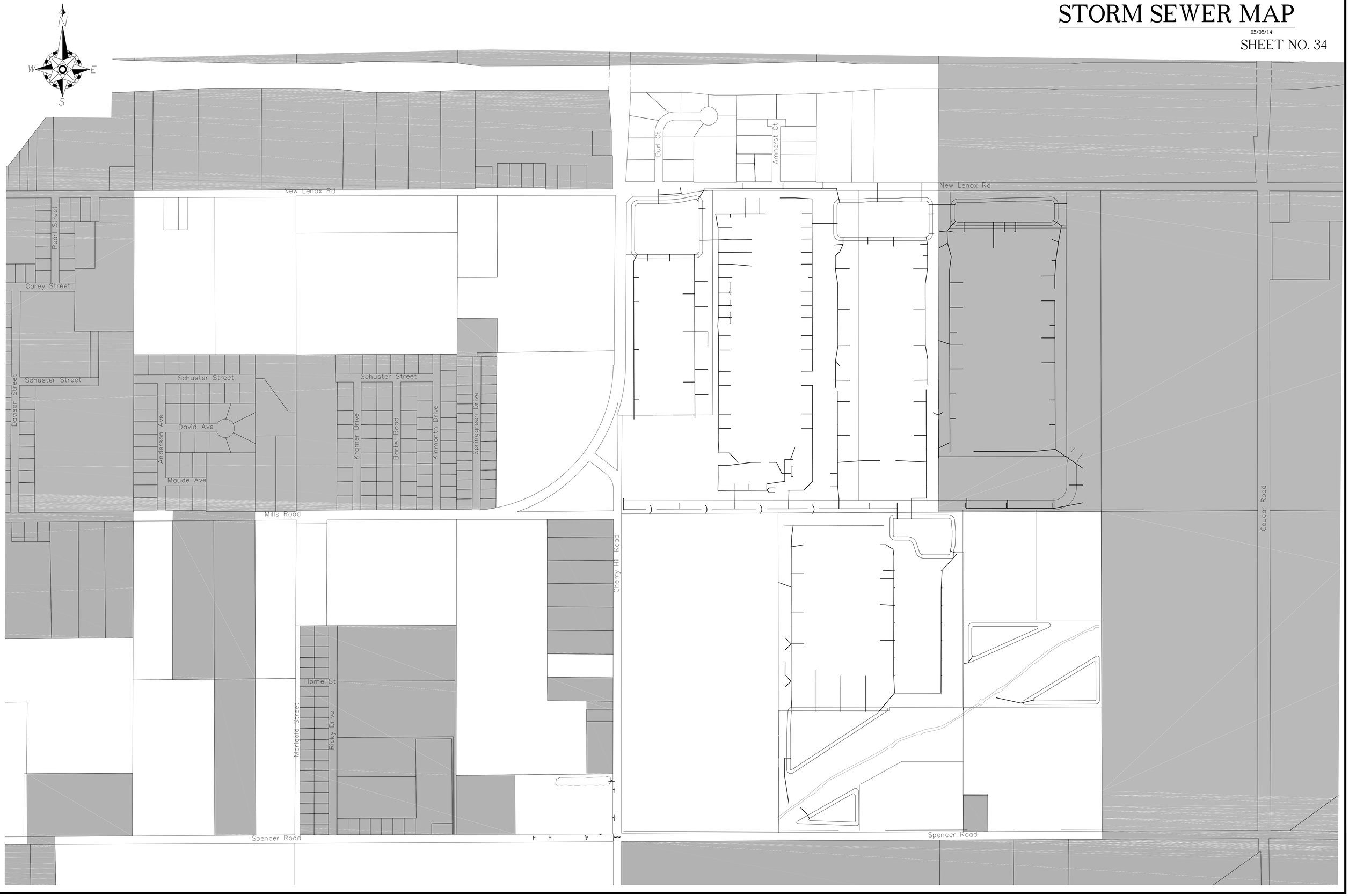

STORM SEWER MAP

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STORM SEWER MAP

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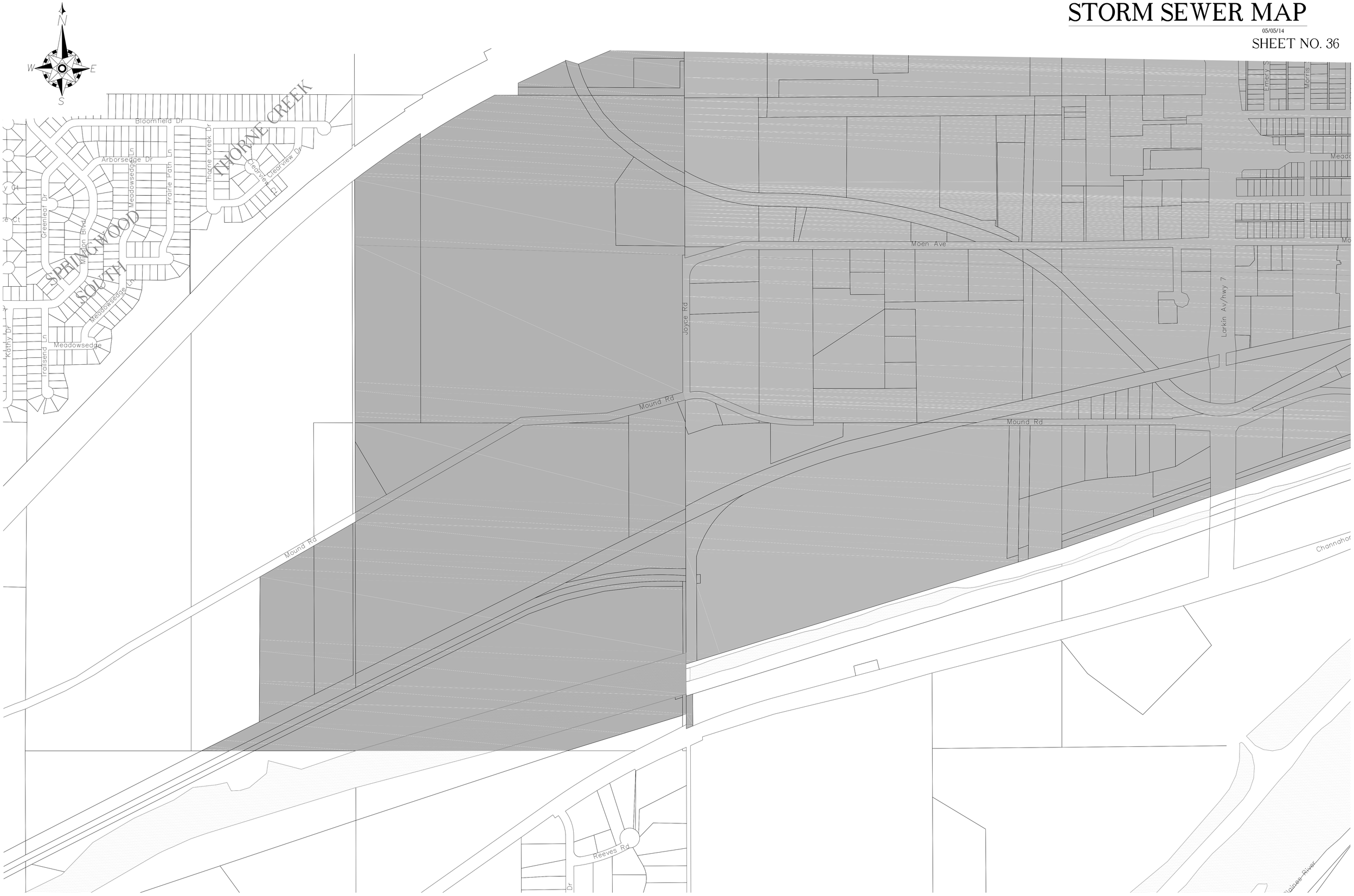

STORM SEWER MAP

05/05/14

SHEET NO. 37

STORM SEWER MAP

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SHEET NO. 39

STORM SEWER MAP

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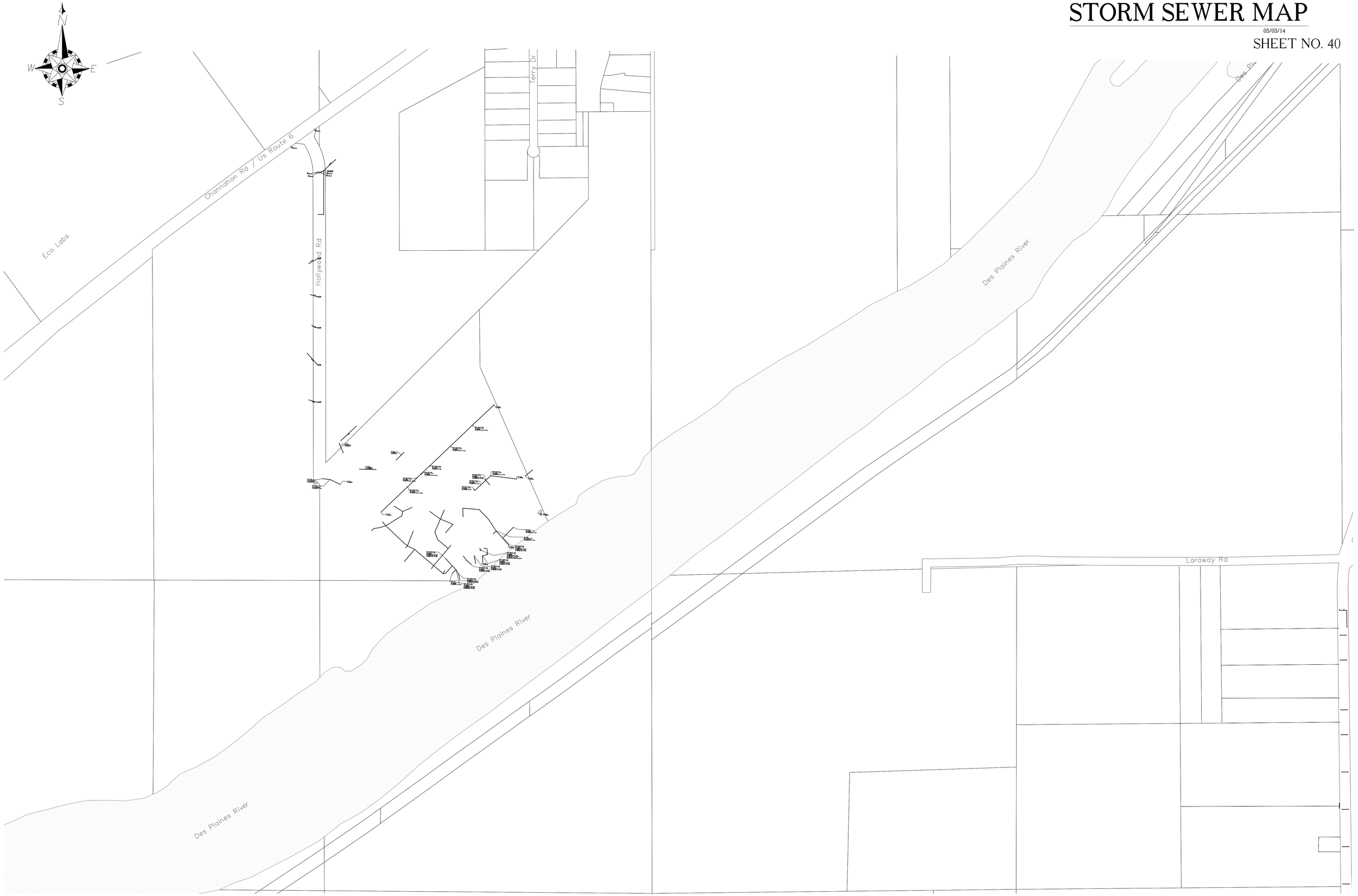
SHEET NO. 40



STORM SEWER MAP

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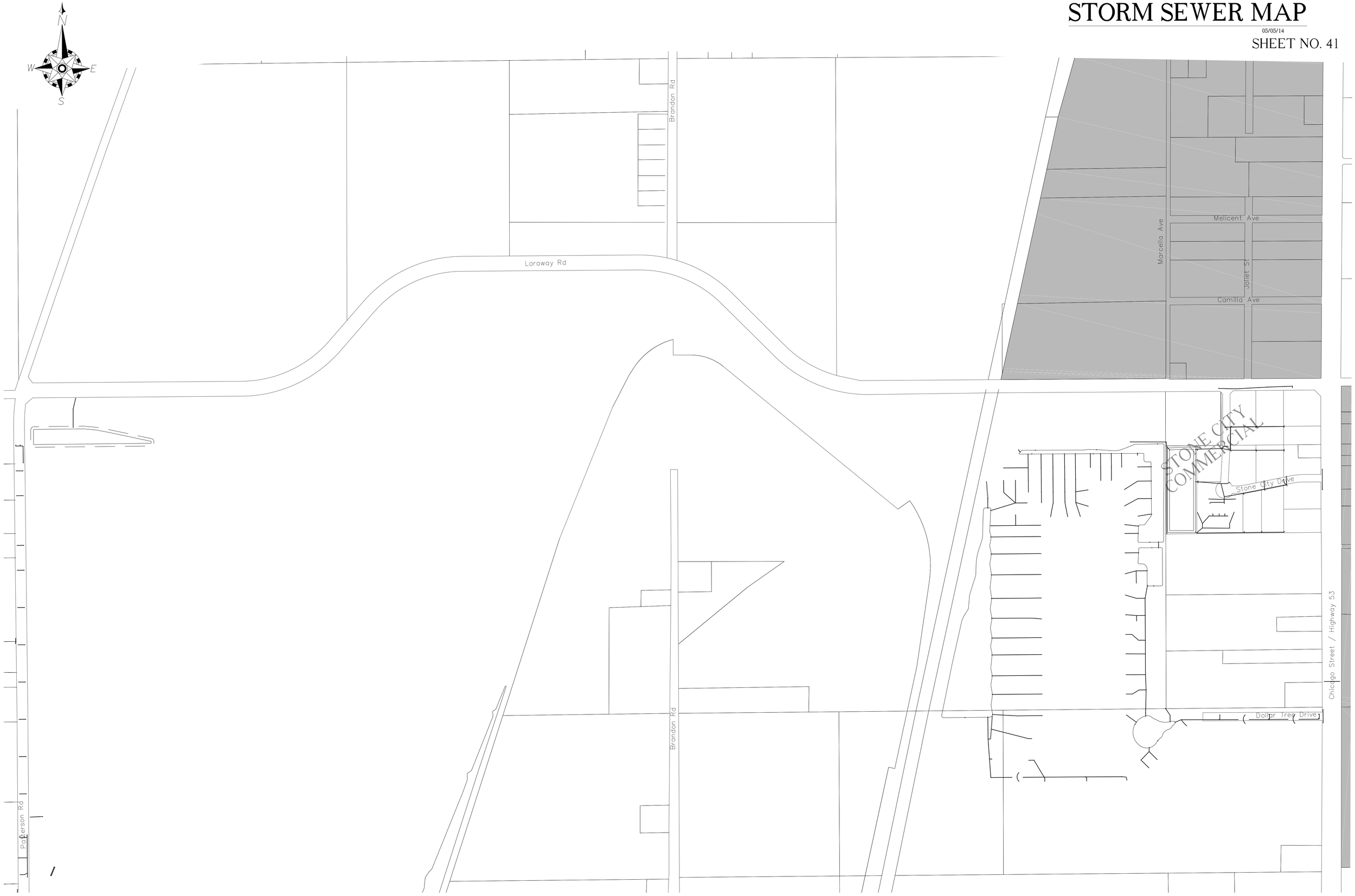

STORM SEWER MAP

05/05/14

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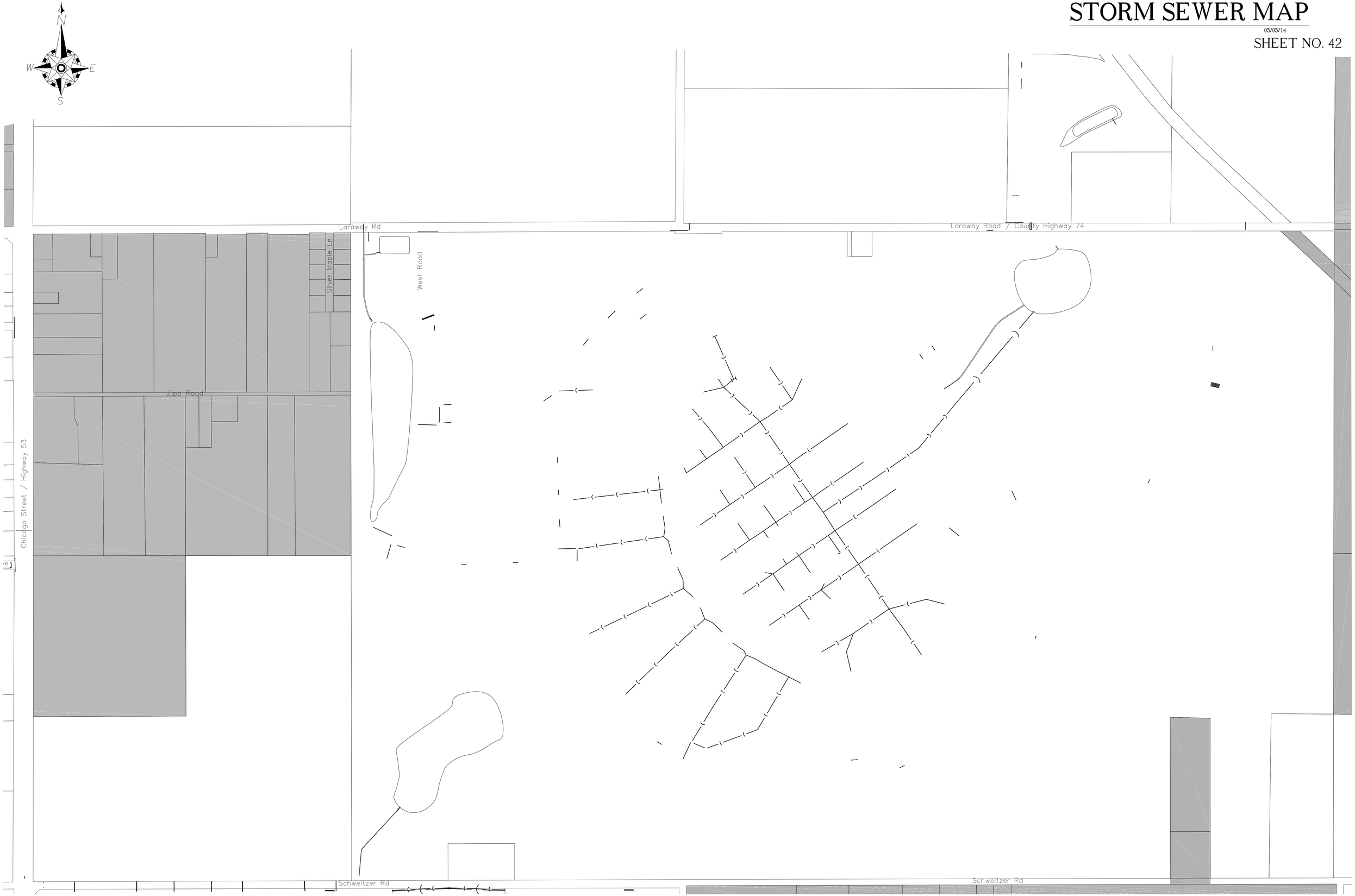

STORM SEWER MAP

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SHEET NO. 43

STORM SEWER MAP

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SHEET NO. 45

STORM SEWER MAP

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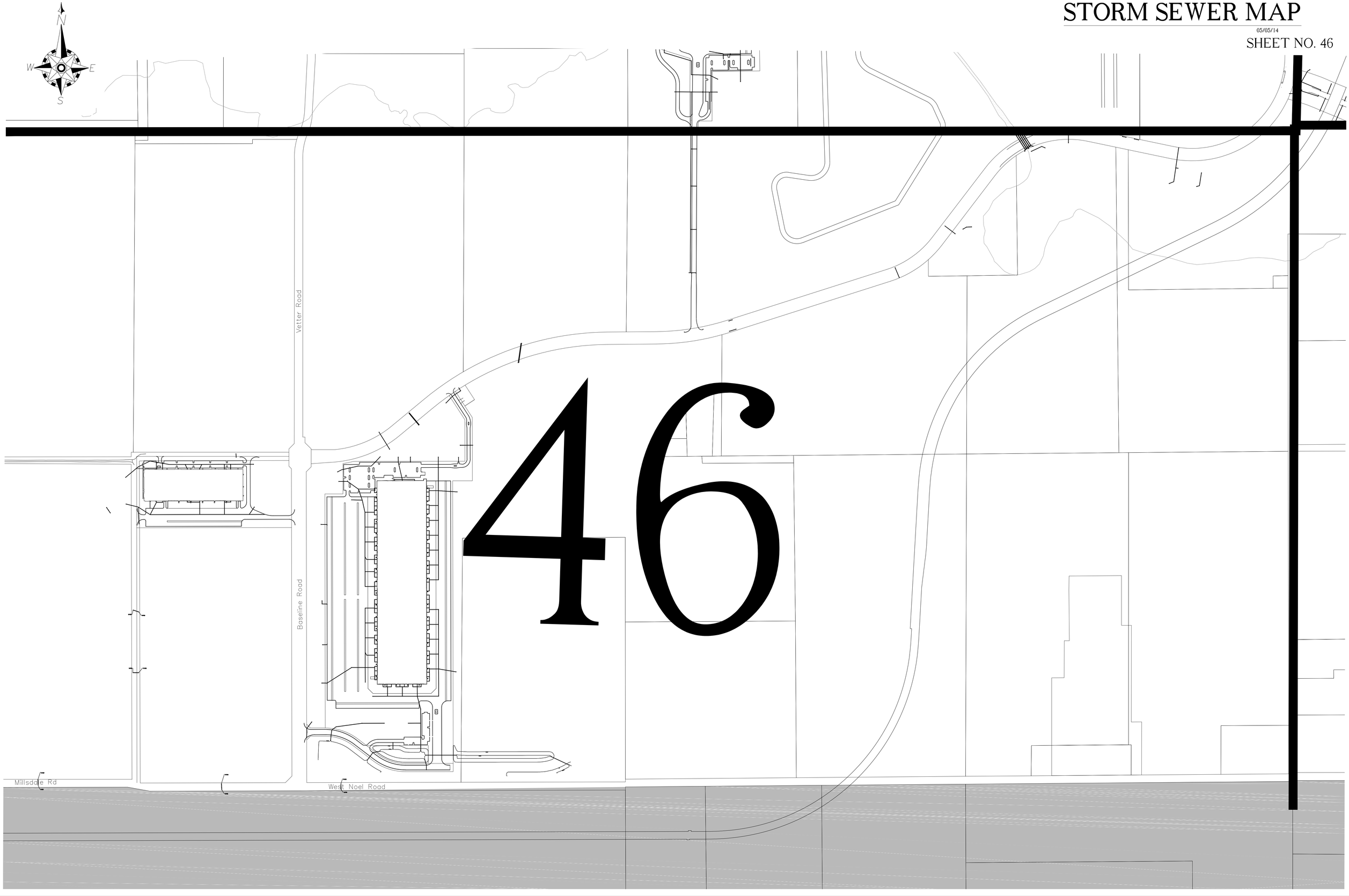
SHEET NO. 46



STORM SEWER MAP

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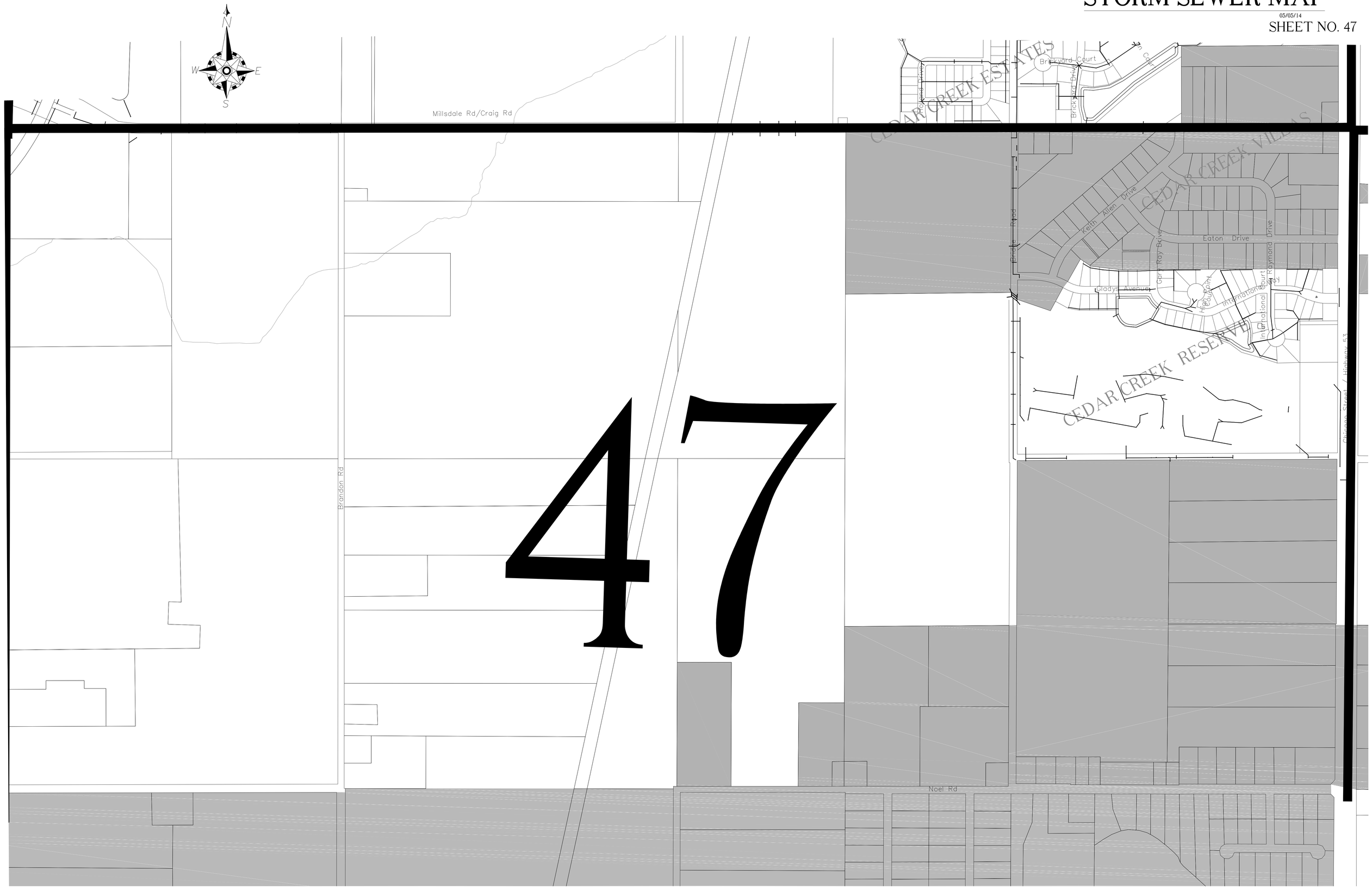


Illicit Discharge Ordinance within City Municipal Code

There shall be no additional storm drainage discharge to the combined sewers by the connection of new inlets or storm sewers and at the earliest possible time all existing inlets and storm sewer connections shall be disconnected.
(Ord. No. 6775, § 22, 11-1-77)

Sec. 31-203. Discharge of toilet, sink, septic tank, etc., to storm sewer system prohibited.
It shall be unlawful for any person to cause by any means the discharge of any toilet, sink, basement, septic tank, cesspool, industrial waste or any fixture or device discharging polluted substances to the storm sewer system of the city.
(Ord. No. 6775, § 23, 11-1-77)

Sec. 31-204. Stormwater detention regulations--Prior to December 1, 1993.
The stormwater detention regulations set forth in this section shall apply to all developments for which a preliminary plat has been applied for prior to December 1, 1993, or for which a preliminary plat has been approved prior to December 1, 1993, and remains valid.
(a) A detention facility and controlled release of storm water runoff shall be required for the following:
(1) All new construction of nonresidential developments exceeding five (5) acres;
(2) All residential developments exceeding ten (10) acres;
(3) All new construction and parking area improvements which have and will have impervious areas of sixty (60) per cent or greater. In the situation where improvements will be made to facilities existing prior to October 2, 1973, the per cent of imperviousness will be based on the entire parcel. If this percentage is sixty (60) per cent or greater, then detention will be required but only on the improved portion of the parcel.
(b) The detention facility shall be designed and calculated on the basis of the one hundred-year frequency rainfall as published by the U.S. Weather Bureau for the city, using the "rational method" of computation.
(c) The rate of release of storm water from all developments shall not exceed any of the following:
(1) Storm water runoff rate from the area in its natural undeveloped state;
(2) The prorated capacity of the existing downstream storm sewers or streams;
(3) The storm water runoff calculated from a two-year frequency rainfall, with a coefficient runoff of thirty-hundredths (0.30); unless it can be shown by detailed calculations that the capacity of the outlet channel serving the area is greater.
(d) The volume of detention required shall be that necessary to handle the runoff of a one hundred-year frequency rainfall, for any and all durations from the fully developed drainage area tributary to the reservoir, less that volume discharged during the same duration.
(e) The maintenance and operation of the detention facility will be done by the owners of the facility. If the owner fails to maintain the detention facility and it is found to endanger the health, safety and welfare of the citizens of Joliet, the city may institute any proceedings necessary in any court of law in order to recover from the owner of the

set forth in Division 15 of Article V, and the burden of proof shall be on the petitioner.

(Ord. No. 8379, § 7, 11-18-86)

Sec. 31-705. Violation of variance.

If the limits of a variance are exceeded or if any terms of a variance are violated by the person granted a variance, a violation of Article V is deemed to have occurred and the variance may be revoked on thirty (30) days' notice.

(Ord. No. 8379, § 7, 11-18-86)

Sec. 31-706. Variance limitation.

No variance granted pursuant to the terms of Article V may allow discharge greater than two and five-tenths (2.5) times the limitation on discharge for specific pollutants based on twenty-four-hour composite samples.

(Ord. No. 8379, § 7, 11-18-86)

Secs. 31-707--31-800. Reserved.

DIVISION 17. ENFORCEMENT PROCEDURES AND PENALTIES FOR ALL USERS

Sec. 31-801. Penalties and costs.

Any user who is found to have violated any provision of Article V, or any order, rule, regulation, or permit issued under Article V, shall be subject to the general penalty provision set forth in section 1-8 of the Code of Ordinances. For the purpose of this section, each day in which any such violation shall occur shall be deemed a separate violation, and a separate violation shall be deemed to have occurred for each constituent listed in Article V found to exceed established limits during any such day. In addition to the penalties provided herein, the city may recover reasonable attorney's fees, court costs, and other expenses of litigation by appropriate suit at law against the person found to have violated Article V or the orders, rules, regulations and permits issued thereunder.

(Ord. No. 8379, § 8, 11-18-86)

Sec. 31-802. Injunctive relief.

In addition to the fine levied upon conviction of a violator, the city may, where the circumstances of the particular case so dictate, seek injunctive relief to prohibit the user from violating Article V, discharging into the sanitary sewer system, or to provide such affirmative relief as may be

The repeal of an ordinance shall not affect any punishment or penalty incurred before the repeal took effect, nor any suit, prosecution or proceeding pending at the time of the repeal, for an offense committed or cause of action arising under the ordinance repealed.

Sec. 1-7. Severability of parts of Code.

The sections, paragraphs, sentences, clauses and phrases of this Code are severable, and if any phrase, clause, sentence, paragraph or section of this Code shall be declared unconstitutional, invalid or unenforceable by the valid judgment or decree of a court of competent jurisdiction, such unconstitutionality, invalidity or unenforceability shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Code.

Sec. 1-7.1. Encouraging violation of Code.

It is hereby declared to be an offense for any individual to command, encourage or request another to commit a violation of the Code of Ordinances of the City of Joliet when such command, encouragement or request is made with the intent that said violation be committed.

(Ord. No. 6489, § 1, 6-1-76)

Editor's note—

Ord. No. 6489, § 1, enacted June 1, 1976, did not specifically amend this Code, hence inclusion herein as § 1-7.1 was at the discretion of the editors.

Sec. 1-8. General penalty for violation of Code; continuing violations.

(a) Whenever in this Code or in any ordinance of the city an act is prohibited or is made or declared to be unlawful or an offense or whenever the doing of any act is required or the failure to do any act is declared to be unlawful for an offense, the violation of any such provision of this Code or any ordinance shall be punished by a fine of not more than seven hundred fifty dollars ($750.00) if there is no specific penalty provided for the violation of any such provision of this Code or any ordinance. Each day any violation of any provision of this Code or of any ordinance shall continue shall constitute a separate offense.

(b) Where no specific penalty is provided for the violation of any parking or vehicle licensing ordinance, the violation of such ordinance shall be punishable by a fine of not more than two hundred dollars ($200.00). Each day any violation of the above sections continues shall constitute a separate offense.

(c) The minimum fines payable set forth in the Illinois Vehicle Code for violations of handicap parking laws (625 ILCS 5/11-1301.3, as amended), school and construction zone laws (625 ILCS 5/11-605), and school bus passing laws (625 ILCS 5/11-1414) shall apply to any such violation prosecuted as a municipal ordinance violation.

(Ord. No. 7551, § 2, 5-5-81; Ord. No. 10215, § 1, 7-7-93; Ord. No. 11059, § 1, 3-19-96)

Sec. 1-9. Compliance tickets; administrative fee.

(a) Notwithstanding any other provision of this Code, any person accused of violating any provision of this Code (or other ordinance or regulation of the city or other governmental body whose ordinances or regulations the city has agreed to enforce) may be issued a compliance ticket which shall require the violator to:

(1) Except as provided in subsection (2) hereof, pay an administrative fee of one hundred and fifty dollars ($150.00) to the city collector within fourteen (14) days of the issuance of a compliance ticket as a settlement and compromise of the claim against the violator; and

(2) Pay an administrative fee of three hundred dollars ($300.00) to the city collector within fourteen (14) days of the issuance of a compliance ticket as a settlement and compromise of the claim against the violator for the following violations of the this Code:

a. Section 6-6 (cruelty to animals);

b. Section 6-28 (vicious dog);

c. Section 19-6 (unattended child in vehicle).

(3) Correct, repair or rectify any condition that constitutes a continuing violation of a city ordinance or regulations (or of the ordinances or regulations of a governmental body or agency whose ordinances or regulations the city has agreed to enforce) within the period specified in the compliance ticket.

(b) A compliance ticket shall be issued as a courtesy to the violator in lieu of instituting a prosecution for the alleged violation. If the person accused of the violation fails to settle and pay the claim within the period specified in the compliance ticket, the compliance ticket shall be converted to a complaint, uniform traffic citation, or a notice to appear which shall be filed with the circuit court, and that person shall be subject to prosecution in the circuit court and shall be subject to the fines and penalties authorized by law or ordinance.

(c) If any person to whom a compliance ticket has been issued desires to contest the validity of the compliance ticket, then that person shall file a written notice of appeal with the city manager or his designee within five (5) days of the issuance of the compliance ticket which notice shall request a hearing on the compliance ticket. The city manager shall appoint a person to serve as hearing officer who shall, after receiving evidence from the person issuing the compliance ticket and the person to whom the compliance ticket is issued, render a decision. If the person to whom the compliance ticket is issued refuses to comply with any order issued by the hearing officer, then the city shall have the right to pursue any available remedy to seek collection and compliance, including prosecution in circuit court.

(d) The city manager is authorized to promulgate administrative regulations to implement the compliance ticket program.

(e) If a compliance ticket requires the correction or repair of a condition within a certain period of time and the violation fails to correct, repair, or rectify the violation within that period, then the city may issue additional compliance tickets or may pursue prosecution in circuit court.

(Ord. No. 10215, § 1, 7-7-93; Ord. No. 13272, § 1, 8-7-01; Ord. No. 16309, § 1, 9-15-08)

Sec. 1-10. Offenses subjecting a vehicle to impoundment.

(a) A violation of one (1) or more of the following provisions of the Code of Ordinances of the city or the Illinois Criminal Code shall subject a vehicle used in connection with the violation(s) to impoundment as provided in section 1-10.1

(1) Sound amplification systems (625 ILCS 5/12-611), adopted pursuant to section 19-1 of the Code.

(2)

Consolidated Stormwater Management, Soil Erosion and Sediment Control and Floodplain Management Regulations (2003)

limited to the storage for his property as computed in subsection (a) above. If regional storage is selected by the City of Joliet, then the design produced in subsection (d) above shall be implemented.

(f) If regional storage is rejected by the City of Joliet, the applicant shall design the storage and release rates for the applicant's property only. Existing upstream flows shall be routed around the storage when practicable.

(2) *Upstream areas meeting ordinance requirements*: When there are areas which meet the storage and release rate requirements of this ordinance, tributary to the applicant's property, the upstream flows shall be bypassed around the applicant's detention basin, or be routed through the applicant's detention basin if this is the only practicable alternative. Storage needed for the applicant's property shall still be computed as described in subsection (l)(1). However, if the City of Joliet decides to route tributary area flows through an applicant's basin, the final design stormwater releases shall be based on the combined total of the applicant's property plus tributary areas. It must be shown that at no time will the runoff' from the applicant's property exceed the allowable release rate for the applicant's property alone.

Ordinance No. 10323, Section 2, adopted December 8, 1993.

(m) ***Time of Construction of Storage Areas***

Where detention, retention or depressional storage areas are to be used as part of the drainage system for a property, they shall be constructed as the first part of the initial earthwork program. Temporary detention facilities can be provided where the schedule for the site does not include the permanent detention site as a part of the initial development. Bonding for the completion of adequate permanent facilities shall be provided with the first increment of the development recorded.

Ordinance No. 10323, Section 2, adopted December 8, 1993.

(n) ***Maintenance responsibility***

The maintenance of stormwater detention facilities shall be provided by the property owner(s) of the site. The owner(s) of the property shall grant an easement to the City of Joliet in the event that Joliet needs to enter the property to correct deficiencies in the maintenance provided by the owner(s). Presedimentation facilities, inlet control structures and outlet structures shall be maintained by the City of Joliet to assure adequate functioning of the facility.

Ordinance No. 10323, Section 2, adopted December 8, 1993.

SOIL EROSION AND SEDIMENT CONTROL REGULATIONS

Sec. 31-206. Site development permit.

The regulation of soil erosion and sediment control is provided by Sections 31-206 and 31-207. The purpose of these sections is to safeguard persons, protect property, prevent damage to the environment,

and promote the public welfare by guiding, regulating and controlling the design, construction, use and maintenance of any development or other activity which disturbs or breaks the topsoil or otherwise results in movement of earth on land situated within the corporate limits of Joliet. It is the intention of these sections that the delivery of sediment from sites affected by land disturbing activity be limited, as closely as practicable, to that which would have occurred if the land had been left in its natural undisturbed state.

It is the objective of these regulations to control soil erosion and sedimentation caused by development activities, including clearing, grading, stripping, excavating, and filling of land. Measures taken to control soil erosion and offsite sediment runoff should be adequate to assure that sediment is not transported from the site by a storm event of ten-year frequency or less. The following principles shall apply to activities regulated by this section.

Principle 1: Development should be related to the topography and soils of the site so as to create the least potential for erosion. Areas of steep slopes where high cuts and fills may be required should be avoided wherever possible, and natural contours should be followed as closely as possible.

Principle 2: Natural vegetation should be retained and protected wherever possible. Areas immediately adjacent to natural watercourses, lakes, ponds, and wetlands should be left undisturbed wherever possible. Temporary crossings of watercourses, when permitted, must include appropriate stabilization measures.

Principle 3: Special precautions should be taken to prevent damages resultant from any necessary development activity within or adjacent to any stream, take, pond, or wetlands Preventative measures should reflect the sensitivity of these areas to erosion and sedimentation.

Principle 4: The smallest practical area of land should be exposed for the shortest practical time during development.

Principle 5: Sediment basins or traps, filter barriers, diversions, and any other appropriate sediment or runoff control measures should be installed prior to site clearing and grading and maintained to remove sediment from run-off waters from land undergoing development

Principle 6: The selection of erosion and sedimentation control measures should be based on assessment of the probable frequency of climatic and other events likely to contribute to erosion, and on evaluation of the risks, costs, and benefits involved.

Principle 7: In the design of erosion control facilities and practices, aesthetics and the requirements of continuing maintenance should be considered.

Principle 8: Provision should be made to accommodate the increased run-off caused by changed soil and surface conditions during

and after development. Drainageways should be designed so that their final gradients and the resultant velocities and rates of discharge will not create additional erosion onsite or downstream.

Principle 9: Permanent vegetation and structures should be installed and functional as soon as practical during development.

Principle 10: Those areas being converted from agricultural purposes to other land uses should be vegetated with an appropriate protective cover prior to development.

Principle 11: All waste generated as a result of site development activity should be properly disposed of and should be prevented from being carried off the site by either wind or water.

Principle 12: All construction sites should provide measures to prevent sediment from being tracked onto public or private roadways.

Ordinance No. 11301, Section 8, adopted December 3, 1996.

(a) ***Permit required***

Except as otherwise provided in this ordinance, no person shall commence or perform any clearing, grading, stripping, excavating, or filling of land which meets the following provisions without having first obtained a site development permit from the City of Joliet.

(1) Any land disturbing activity (i.e. clearing, grading, stripping, excavation, fill, or any combination thereof) that will affect an area in excess of 5000 square feet.

(2) Any land disturbing activity that will affect an area in excess of 500 square feet if the activity is within 25 feet of a lake, pond, stream, or wetland; or

(3) Excavation, fill, or any combination thereof that will exceed 100 cubic yards.

Ordinance No. 10323, Section 3, adopted December 8, 1993.

(b) ***Exceptions***

A permit shall not be required for any of the following provided that the person responsible for any such development shall implement necessary soil erosion and sediment control measures to satisfy the principles set forth in the Subdivision Regulations.

(1) Excavation below final grade for the basement and footings of a single-family residence and appurtenant structures on a site in excess of two acres for which a building permit has been issued by the City of Joliet;

(2) Excavation below final grade for the basement and footings of a single-family residence on a site two (2) acres or less which was permitted by subdivision approval.

(3) Agricultural use of land on a site which has a permit provided by subdivision; or

(4) Installation, renovation, or replacement of a septic system to serve an existing dwelling or structure.

Ordinance No. 10323, Section 3, adopted December 8, 1993.

(c) ***Application for permit***

Application for a site development permit shall be made by the owner of the property or the owner's authorized agent to the city manager or his designee on a form furnished for that purpose. Each application shall bear the name(s) and address(es) of the owner or developer of the site and of any consulting firm retained by the applicant together with the name of the applicant's principal contract at such firm and shall be accompanied by a filing fee of $250.00. Each application shall include certification that any land clearing, construction, or development involving the movement of earth shall be in accordance with the plans approved upon issuance of the permit.

Ordinance No. 10323, Section 3, adopted December 8, 1993.

(d) ***Submissions***

Each application for a site development permit shall be accompanied by the following information:

(1) A vicinity map in sufficient detail to enable easy location in the field of the site for which the permit is sought and including the boundary line and approximate acreage of the site, existing zoning a legend and scale.

(2) (a) Existing topography of the site and adjacent land within approximately 100 feet of the boundaries, drawn at no greater than two-foot contour intervals **and** clearly portraying the conformation and drainage pattern of the area.

(b) The location of existing buildings, structures, utilities, streams, lakes, floodplains, wetlands and depressions, drainage facilities vegetative cover, paved areas and other significant natural or man-made features on the site and adjacent land within 100 feet of the boundary.

(c) Proposed use of the site, including present development and planned utilization; areas of clearing, stripping, grading, excavation and filling; proposed contours, finished grades and street profiles; provisions for storm drainage, including storm sewers, swales, detention basins and any other measures to control the rate of runoff with a drainage area map, indications of flow directions and computations; kinds and locations of utilities; and areas and acreages proposed to be paved, covered, sodded or seeded, vegetatively stabilized or left undisturbed.

(3) An erosion and sediment control plan showing all measures necessary to meet the objectives of this ordinance throughout all phases or construction and permanently after completion of development of the site, including:

(a) Location and description including standard depths of all sediment control measures and design specifics of sediment basins and traps including outlet details.

(b) Location and description of all soil stabilization and erosion control measures including seeding mixtures and rates, types of sod, method of seedbed preparation, expected seeding dates, type and rate of lime and fertilizer application, king and quantity of mulching for both temporary and permanent vegetative control measures and types of non-vegetative stabilization measures.

(c) Location and description of all runoff control measures including diversions, waterways and outlets.

(d) Location and description of methods to prevent tracking of sediment offsite including construction entrance details as appropriate.

(e) Description of dust and traffic control measures.

(f) Locations of stockpiles and description of stabilization methods.

g) Description of off-site fill or borrow volumes, locations and methods of stabilization.

(h) Provisions for maintenance of control measures including type and frequency of maintenance and easements the person(s) or entity which will have legal responsibility for maintenance of erosion control structures and measures during development and after development is completed.

(i) Identification (name, address and telephone) of the person(s) or entity which will have legal responsibility for maintenance of erosion control structures and measures during development and after development is completed.

(4) The proposed phasing of development of the site including stripping and clearing, rough grading and construction and final grading and landscaping . Phasing should identify the expected date clearing will begin, the estimated duration of exposure of cleared areas, and the sequence of installation of temporary sediment control measures (including perimeter controls), clearing and grading, installation of temporary soil stabilization measures, installation of storm measures, paving streets and parking areas, final grading, and the establishment of permanent vegetative cover and the removal of temporary measures. It shall be the responsibility of the applicant to notify the City of Joliet of any significant changes which occur in the site development schedule after the initial erosion and sediment control plan has been approved.

These submissions shall be prepared in accordance with the requirements of these regulations and the standards and requirements of the "Illinois Urban Manual" (NRCS, IEPA, 1995).

The City of Joliet may waive specific requirements for the content of submissions upon finding that the information submitted is sufficient to show that the work will comply with the objectives and principles of these regulations.

Ordinance No. 10323, Section 3, adopted December 8, 1993, as amended by Ordinance No. 11301, Section 9, adopted December 3, 1996

(e) ***Bonds***

The applicant is required to file with the City of Joliet a faithful performance bond or bonds, letter of credit or other improvement security satisfactory to the city manager or his designee in an amount deemed sufficient by the city manager or his designee to cover all costs of improvements, landscaping, maintenance of improvements and landscaping, and soil erosion and sediment control measures for such period as specified by the City of Joliet and engineering and inspection cost to cover the cost of failure or repair or improvements installed on the site.

Ordinance No. 10323, Section 3, adopted December 8, 1993.

(f) ***Review and approval***

Each application for a site development permit shall, be reviewed and acted upon according to the following procedures:

(1) The City of Joliet will review each application for a site development permit to determine its conformance with the provisions. of this ordinance. Within 30 days after receiving an application, the City of Joliet shall in writing:

(a) Approve the permit application if it is found to be in conformance with the provisions of this ordinance and issue the permit;

(b) Approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this ordinance and issue the permit subject to these conditions; or

(c) Disapprove the permit application indicating the deficiencies and the procedure for submitting a revised application and/or submission.

(2) No site development permit shall be issued unless the applicant is notified of his responsibility to obtain all relevant federal and state permits (i.e. for floodplains and wetlands).

(3) Failure of the City of Joliet to act on an original or revised application within 30 days of receipt shall authorize the applicant to proceed in accordance with the plans as filed unless such time is extended by agreement between the City of Joliet and the applicant. Pending preparation and approval of a revised plan, development activities shall be allowed to proceed in accordance with conditions established by the City of Joliet.

Ordinance No. 10323, Section 3, adopted December 8, 1993.

(g) ***Expiration of permit***

Every site development permit shall expire and become null and void if the work authorized by such permit has not bee commenced within two (2) years, or is not completed by a date which shall be specified in the permit; except that the City of Joliet may, if the permittee presents satisfactory evidence that unusual difficulties have prevented work being commenced or completed within the specified time limits, grant

reasonable extension of time if written application is made before the expiration date of the permit. The City of Joliet may require modification of the erosion control plan to prevent any increase in erosion or offsite sediment runoff resulting from any extension.

Ordinance No. 10323, Section 3, adopted December 8, 1993.

(h) ***Stop Work Order***

In the event any person holding a site development permit pursuant to this ordinance violates the terms of the permit, or carries on site development in such a manner as to materially adversely affect the health, welfare or safety of persons residing or working in the neighborhood of the development site or so as to be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood the City Manager may suspend or revoke the site development permit.

(1) Suspension of a permit shall be by written stop-work order issued by the City Manager and delivered to the permitee, its agent or the person performing the work. The stop-work order shall be effective immediately, shall state the specific violations cited, and shall state the conditions under which work may be resumed.

(2) No site development permit shall be permanently suspended or revoked until a hearing is held by the City Manager. Written notice of such hearing shall be served on the permitee, either personally or by registered mail, and shall state the grounds for the complaint or the reasons for suspension or revocation and the time when and place where such hearing will beheld. Such notice shall be served on the permitee at least five (5) days prior to the date set for the hearing. At such hearing, the permitee shall be given an opportunity to be heard and may call witnesses and present evidence. At the conclusion of the hearing the City Manager shall determine whether the permit shall be suspended or revoked.

Ordinance No. 14204, Section 8, adopted March 4, 2003.

(i) ***Enforcement***

No person shall construct, alter, repair, or maintain any grading, excavation or fill, or cause the same to be done in violation of any of this ordinance. Any person violating this ordinance shall be guilty of an ordinance violation. Each day during which any violation of this ordinance is committed, continued or permitted shall constitute a separate offense. Upon conviction of any such violation, such person, partnership or corporation shall be punished by a fine of not more than Seven Hundred Fifty Dollars ($750.00) for each offense. In addition to any other penalty authorized by this ordinance, any person convicted of violating this ordinance shall be required to restore the site to condition existing prior to commission of the violation and to bear the expense of such restoration.

Ordinance No. 14204, Section 9, adopted March 4, 2003.

Sec. 31-207. Design and operation standards and requirements

(a) ***Soil erosion and sediment controls***

Site design requirements for soil erosion and sediment controls: on-site sediment control measures as specified by the following criteria shall be constructed and functional prior to initiating clearing, grading, stripping, excavating or fill activities on the site.

(1) For disturbed areas draining less than one acre, filter barriers (including filter fences, straw bales, or equivalent control measures) shall be constructed to control all offsite runoff as specified in referenced handbooks. Vegetated filter strips with a minimum width of 25 feet may be used as an alternative only where runoff in sheet flow is expected.

(2) For disturbed areas draining more than 1 but less than 5 acres, a sediment trap or equivalent control measure shall be constructed at the downslope point of the disturbed area.

(3) For disturbed areas draining more than 5 acres, a sediment basin or equivalent control measure shall be constructed at the downslope point of the disturbed area.

(4) Sediment basins and sediment trap designs shall meet the requirements of the "Illinois Urban Manual"(NRCS, IEPA, 1995).

(5) The sediment storage shall be sized to store the estimated sediment load generated from the site over the duration of the construction period with a minimum storage equivalent to the volume of sediment generated in one year. For construction periods exceeding one year, the one-year sediment load and sediment removal schedule may be substituted.

Ordinance No. 10323, Section 4, adopted December 8, 1993, as amended by Ordinance No. 11301, Section 10, adopted December 3, 1996

(b) ***Stormwater conveyance channels***

Stormwater conveyance channels including ditches, swales and diversions and the outlets of all channels and pipes shall be designed and constructed to withstand the expected flow velocity from the 10-year frequency storm without erosion. All constructed or modified channels shall be stabilized within 48 hours consistent with the following standards:

(1) For grades up to 4 percent, seeding in combination with mulch, erosion blanket or an equivalent control measure shall be applied. Sod or erosion blanket or mat shall be applied to the bottom of the channel.

(2) For grades of 4 to 8 percent, sod or an equivalent control measure shall be applied in the channel.

(3) For grades greater than 8 percent, rock, riprap or an equivalent measure shall be applied or the grade shall be effectively reduced using drop structures.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(c) ***Disturbed areas***

Disturbed areas shall be stabilized with temporary or permanent measures within seven calendar days following the end of active disturbance or redisturbance consistent with the following criteria:

(1) Appropriate temporary or permanent stabilization measures shall include seeding, mulching, sodding and/or non-vegetative measures.

(2) Areas having slopes greater than 12 percent shall be stabilized with sod, mat or blanket in combination with seeding or equivalent.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(d) ***Land disturbance activities in stream channels***

Land disturbance activities in stream channels shall be avoided where possible. If disturbance activities are unavoidable, the following requirements shall be met:

(1) Construction vehicles shall be kept out of the stream channel to the maximum extent practicable. Where construction crossings are necessary, temporary crossings shall be constructed of non-erosive material such as riprap or gravel.

(2) The time and area of disturbance of stream channels shall be kept to a minimum. The stream channel including bed and banks shall be restabilized within 48 hours after channel disturbance is completed interrupted or stopped.

(3) Whenever channel relocation is necessary, the new channel shall be constructed in the dry and fully stabilized area before flow is diverted.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(e) ***Protection of storm sewer inlets and culverts***

Storm sewer inlets and. culverts shall be protected by sediment traps or filter barriers meeting accepted design standards and specifications.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(f) ***Soil storage piles***

Soil storage piles containing more than 10 cubic yards of material shall not be located with a downslope drainage length of less than 25 feet to a roadway or drainage channel. Filter barriers including straw bales, filter fence or equivalent shall be installed immediately on the downslope side of the piles.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(g) ***Dewatering devices***

If dewatering devices are used, discharge locations shall be protected from erosion. All pumped discharges shall be routed through appropriately designed sediment traps or basins or equivalent.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(h) ***Temporary Access Roads***

Each site shall have graveled (or equivalent) entrance roads, access drives and parking areas of sufficient length and width to prevent sediment from being tracked onto public or private roadways. Any sediment reaching a public or private road shall be removed by shovelling or street cleaning before the end of each workday and transported to a controlled sediment disposal area.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(i) ***Maintenance***

All temporary and permanent erosion and sediment control practices must be maintained and repaired as needed to assure effective performance of their intended function.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(j) ***Temporary Erosion Disposal***

All temporary erosion and be disposed of within 30 days after final site stabilization measures. Trapped sediment and other disturbed soils resulting from the disposition of temporary measures should be permanently stabilized to prevent further erosion and sedimentation.

Ordinance No. 10323, Section 4, adopted December 8, 1993, as amended by Ordinance No. 11301, Section 11, adopted December 8, 1996.

(k) ***Handbook adopted by reference***

The standards and specifications contained in the "Illinois Urban Manual" published by the Natural Resources Conservation Service and the Illinois Environmental Protection Agency in 1995 and the "Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control" published in 1988 (the “Greenbook”) are hereby incorporated by reference and made a part hereof by reference for the purpose of delineating procedures and methods of operation under site development and erosion and sedimentation control plans approved under Section 31-206. In the event of a conflict between provisions of said manuals and this section, this section shall govern.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(l) ***Maintenance of control measures***

All soil erosion and sediment control measures necessary to meet the requirements of this ordinance shall be maintained periodically by the applicant or subsequent land owner during the period of land disturbance and development of the site in a satisfactory manner to ensure adequate performance.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(m) ***Inspection***

The City Of Joliet shall make periodic inspections and shall notify the permittee wherein the work fails to comply with the site development or erosion and sedimentation control plan as approved. The permitted shall request inspections two working days prior to the completion of the following items:

(1) The completion of installation of sediment and runoff control measures(including perimeter controls and diversions), prior to proceeding with any other earth disturbance or grading;

(2) After stripping and clearing;

(3) After rough grading;

(4) After final grading

(5) After seeding and landscaping;

(6) After final stabilization and landscaping, prior to removal of sediment controls.

If stripping, clearing, grading and/or landscaping are to be done in phases or areas, the permitted shall give notice and request inspection at the completion of the above stages of work in each phase or area.

Ordinance No. 10323, Section 4, adopted December 8, 1993, as amended by Ordinance No. 11301, Section 12, adopted December 8, 1996.

(n) ***Special precautions***

If at any stage of the grading of any development site, the City of Joliet determines by inspection that the nature of the site is such that further work authorized by an existing permit is likely to imperil any property, public way, stream, lake, wetland or drainage structure, the City of Joliet may require as a condition of allowing the work to be done that such reasonable special precautions to be taken as in considered advisable to avoid the likelihood of such peril.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(o) ***Stop Work Order***

Where it appears that storm damage may result because the grading on any development site is not complete, work may be stopped and the permittee required to install temporary structures or take such other measures as may be required to protect adjoining property or the public safety.

Ordinance No. 10323, Section 4, adopted December 8, 1993.

(p) ***Amendment of plans***:

Major amendments of the site development or erosion and sedimentation control plans shall be submitted to the City of Joliet and shall be processed and approved or disapproved in the same manner as the original plans. Field modifications of a minor nature may be authorized by the City of Joliet.

CSO Illicit Discharge Caution Sign

OUTFALL NUMBER 007
WEST DUNCAN STREET

CAUTION

THIS OUTFALL MAY DISCHARGE SEWAGE CONTAMINED RAINWATER DURING AND FOLLOWING RAINFALL

IF OBJECTIONABLE DISCHARGE IS OBSERVED DURING DRY WEATHER, PLEASE CALL (815) 724-4220

FOR MORE INFORMATION, CALL
THE CITY OF JOLIET
PUBLIC UTILITIES
(815) 724-4230
www.jolietutilities.org

Illicit Discharge Employee Training Summary

TRAINING FOR MS4

1. Friday, April 15, 2011, 11:00 AM to Noon with Jay Rivera reviewing and answering questions on Illicit Discharge Detection and Elimination Program.

2. Monday, April 18, 2011, 10:30 AM to 11:00 AM with Jay Rivera answering questions and discussing sampling of outfalls.

3. Wednesday, May 11, 2011, 10:00 AM to 11:30 PM, meeting with Staff, discussed Illicit Discharge Detection and Elimination Program. Review map showing outfalls in Eastside of City, discuss sampling protocol, outfall inspection and parameters to test for if illicit discharge is suspected. Bon Mui, Lisa Dorothy, Greg Ruddy, Mike Eulitz, Jim Eggen, Jim Trizna

4. Thursday, December 13, 2011, MS4 Permit CBI-Systems, LTD software training at Emergency Operations Center basement Will Co. EMC at 302 N. Chicago 8:30 AM to 11:30 AM and 12:30 PM t0 3:00 PM. Jay Rivera, Nick Gornick, Bon Mui, Tim Kelly, Jim Eggen Ann Grooms.

5. Wednesday, April 2, 2012, down stair conference room, 10:00 AM to 11:15 AM discussed MS4 Illicit Discharge Detection and Elimination Program and Monitoring Hickory Creek water for watershed group. Bon Mui, Nick Gornick and Lisa Dorothy.

6. Wednesday, May 30, 2012, down stair conference room, 10:00 AM to 11:00 AM, discussed status of MS4 Program. Bon Mui, Nick Gornick, Jim Eggen, Greg Ruddy and Lisa Dorothy.

7. Friday, June 29, 2012, field training for outfall investigation and office training on MS4 software 7:00 AM to 11:00 AM. Field training included sampling of outfall flow by ESTP lab personnel. Bon Mui, Nick Gornick, Tim Kelly, Rich King, Anna Kirwan. After training instructed Tim Kelly and Rich King to continue to practice on MS4 software and become familiar with the MS4 software.

8. Thursday, October 17, 2013, Rich King, Joel Martinez, William Davis and Mark Starasinich went over to the Eastside Treatment Plant lab met with Anna Kirwin to learn how to use storm sewer analyzer.

9. Friday, October 18, 2013, 8:00 AM to 9:30 AM, Bon Mui met with Rich King, Joel Martinez, William Davis and Mark Starasinich. Went over how to read the storm sewer map, how to identify storm sewer outfalls, identify type of storm sewer outfalls and how to fill out outfall reconnaissance inventory/sample collection field sheet form, chain of custody form and outfall sample results form. After class room session sent the four guys out as a group to conduct inspection. The idea was to make sure that they all interpret the outfall site and fill out the form the same way.

10. Friday, October 25, 2013, 8:00 AM to 9:30 AM, Bon Mui met Joel Martinez and William Davis. Went over the storm sewer inspection forms they filled out the previous Friday. Corrected and answered questions concerning what they saw last Friday out in the field and how they were to fill out the form for situations not discussed at last Friday's meeting. Clarified the definition of an outfall to be inspected. Sent both guys out to continue inspecting storm sewer outfalls as a group. Still trying to have the guy's see, interpret and fill out the forms the same way.

11. Friday, November 1, 2013, 8:00 AM to 9:00 AM, Bon Mui met with Richard King, William Davis and Mark Starasinich. Continued education on identifying storm sewer outfalls and filling out outfall reconnaissance inventory/sample collection field sheet form and reading storm sewer map. 2:00 AM to 3:00 AM field training on identifying storm sewer outfall and filling out outfall reconnaissance inventory/sample collection field sheet form.

12. Thursday, April 24, 2014, 8:00AM to 9:00 AM, Bon Mui met with Anna Kirwin, Nicholas Gornick, William Davis, Richard King, Joel Martinez and Mark Starasinich at the Eastside Wastewater Treatment Plant to receive a refresher class on sampling of outfall flow the use of instrument.

13. Friday, April 25, 2014, 7:00 AM to 8:00AM, Bon Mui met with William Davis, Richard King, Joel Martinez and Mark Starasinich. Provided refresher class on how to read the storm sewer map, identify storm sewer outfalls, identify type of storm sewer outfalls and how to fill out outfall reconnaissance inventory/sample collection field sheet form, chain of custody form and outfall sample results form. After class room session sent the four guys out as two man teams to conduct inspections in the far west using subdivision maps provided by Public Works.

Outfall Inspection/ Sample Collection Form

Outfall Inspection/Sample Collection Form

Section 1: Background Data

Subwatershed:	Outfall ID:	
Date:	Time (Military):	
Temperature: F	Inspector(s):	
Previous 48 Hours Precipitation:	Latitude:	Longitude:
Land Use in Drainage Area (Check all that apply):	☐ Open Space	
☐ Industrial	☐ Institutional	
☐ Residential	Other: _____	
☐ Commercial	Known Industries: _____	

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
Storm Sewer (Closed Pipe)	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Clay / Draintile ☐ Other: _____	☐ Circular ☐ Elliptical ☐ Box ☐ Other: ____	☐ Single ☐ Double ☐ Triple ☐ Other:_____	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
Open drainage (swale/ditch)	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:	

Section 3: Physical Indicators

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe algea/growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	
Do physical indicators suggest an illicit discharge is present (Y/N):			

Flow Present?	☐ Yes ☐ No	**If No, Skip to Section 7 and Close Illicit Discharge Investigation**
Flow Description	☐ Trickle ☐ Moderate ☐ Substantial	

Section 4: Physical Indicators (Flowing Outfalls Only)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Sulfide ☐ Petroleum/gas ☐ Laundry ☐ Other:	☐ 1–Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color (color chart)	☐	☐ Clear ☐ Brown Gray ☐ ☐ Yellow ☐ Green ☐ Orange/Red ☐ Multi-Color ☐ Other:	☐ 1–Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1–Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage ☐ Suds and Foam ☐ Petroleum (oil sheen) ☐ Grease ☐ Other:	☐ 1–Few/slight; origin not obvious	☐ 2 – Some; indications of origin	☐ 3 - Some; origin clear
Do physical indicators (flowing) suggest an illicit discharge is present (Y/N):					

Section 5: On-Site Sampling / Testing (Flowing Outfalls Only)

PARAMETER	RESULT	ACCEPTABLE RANGE	WITHIN RANGE (Y/N)	EQUIPMENT
Conductivity				HI9828
DO Mg/L				HI9828
DO %				HI9828
PH		6-9		HI9828
Temperature				HI9828
Chlorine		No color		Test Kit
Sample Location				

(Note NA values used for future tracing procedures)

Section 6: Data Collection for Lab Testing

1. Sample for the lab?	☐ Yes	☐ No
2. If yes, collected from:	☐ Flow	☐ Pool

PARAMETER	RESULT (from lab)	ACCEPTABLE RANGE	WITHIN RANGE (Y/N)
Ammonia			
Phenol			
Surfactants			

*note label sample with outfall number

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Illicit Discharge Tracking Procedure

ILLICIT DISCHARGE TRACKING PROCEDURE

GENERAL:

It is the City's policy to document complaints of illegal connections and illicit discharges to the City's stormwater system in the City's Fieldport work order system. Complaints of illegal connections, illicit discharges, and action taken are to be documented in Fieldport. Information in Fieldport is to be made ready available to the field staff to ensure resolution of complaints. Locations of illegal connections and illicit discharges to the City's stormwater system are to be recorded on the City's GIS system. Written notification of violation to the violator and compliance by violator are to be documented in Fieldport. Location of illegal connections and illicit discharges are to be monitored and inspected for a period of time after violation is corrected. A list of locations consider critical by the City are to be maintained and inspected annually.

1. DOCUMENT COMPLIANTS

A. Upon receipt of a complaint in the office of an illegal connection and/or illicit discharge in the City's stormwater system, the office is to create a service order in the Fieldport work order system for tracking resolution of compliance. Fieldport service order work type is to be "Illicit Discharge" and comment codes are to be "Investigate Illicit Discharge (Requested)" and "Investigate Illicit Discharge (Action Taken)".

2. INSPECT AND DOCUMENT LOCATION ON GIS SYSTEM

A. After the office creates the service order, field staff is to be notified by office of complaint and sent to investigate complaint.

B. As a minimum, field staff is to fill out a Outfall Inspection/Sample Collection Form for the complaint. Field staff is to file the original completed form in the work book and attach a copy to the service order in Fieldport.

C. If field staff determines that the complaint is unfounded, field staff is to note it as such in service order in Fieldport and inform the office that the investigation is completed and no further action is required by the City.

D. If a complaint is confirmed, field staff is to identify illegal connection and/or source of illicit discharge and record information on party responsible in service order in Fieldport and inform office of violation. Location of illegal connection and/or illicit discharge is also to be noted in City's GIS system.

3. NOTIFICATION OF VIOLATION

A. If illegal connection and/or illegal discharge are confirmed, office is to inform Illinois Environmental Protection Agency.

B. City's Legal Department is to be notified of violation.

C. Office is to send a violation letter to violator to cease and correct illegal connection and/or illicit discharge.

D. Office is to document actions taken to stop and correct illegal connection and/or illicit discharge in service order in Fieldport.

4. FUTURE COMPLIANCE

A. Violator of the City's ordinance on illegal connection and/or illicit discharge to the City's stormwater system is to be placed on the City's watch list and inspected each year for three (3) years to confirm continuous compliance with City ordinance and inspected every four (4) years thereafter.

B. A list of locations identified as critical by the City is to be maintained in the office and inspected annually.

Pollutant Field Testing Inspection and Sampling Policy Procedure

POLLUTANT FIELD TESTING
INSPECTION AND SAMPLING POLICY AND PROCEDURE

GENERAL:

It is the City's policy to inspect, sample, and test approximately 25% of the City's stormwater outfalls each year to identify stormwater outfalls with illicit discharges. Stormwater outfalls identified to be critical are to be inspected, sampled and tested on an annual basis.

1. PERIOD OF INSPECTION AND SAMPLING

A. Stormwater outfalls are to be inspected, sampled, and tested year round.

2. FREQUENCY OF INSPECTION AND SAMPLING

A. Approximately 25% of stormwater outfalls are to be inspected, sampled, and tested each year.

B. Stormwater outfalls are to be tested under dry weather condition (no runoff producing rain events at least 48 to 72 hours prior to sampling).

C. Stormwater outfalls identified to be critical are to be inspected, sampled, and tested annually.

D. Complaints of illicit discharge are to be inspected, sampled and tested.

E. For each stormwater outfall inspection, a Outfall Inspection/Sample Collection Form is to be filled out, filed in work book, and attached to service order in Fieldport.

3. WHERE TO INSPECT AND SAMPLE AND/OR COLLECT SAMPLES

A. Stormwater outfalls are to be inspected, sampled, and tested at the receiving water (creeks, streams, rivers, lakes, etc.) of the United States.

1. If flowing water is present in stormwater outfall, visually inspect, check for odors, and perform on-site sampling/testing for parameters listed below, and record results on inspection form. If rain event occurred within last 48 to 72 hours of inspection, do not perform on-site sampling/testing unless visual inspection and odor indicates possible illicit discharge.

    a. Chlorine
    b. Conductivity
    c. Dissolved Oxygen

d. pH
e. Temperature

2. If visual inspection, odor or on-site test results warrant additional testing, perform the following steps:

   a. Collect sample for Lab and note outfall ID on sample bottle.
   b. Inform Lab of incoming field sample.
   c. Note on inspection form sample taken for the Lab.
   d. Fill out Stormwater Outfall Sample Chain of Custody Record form for sample.
   e. Deliver sample to Lab same day.
   f. Lab to test for Ammonia, Phenol and Surfactants.
   g. Lab to fill out Stormwater Outfall Sample Results form.
   h. Lab to send copy of Stormwater Outfall Sample Chain of Custody Record form and Stormwater Outfall Sample Results form to Plant Superintendent and Utilities Administrator.
   i. Copy of Stormwater Outfall Sample Chain of Custody Record form and Stormwater Outfall Sample Results form for outfall are to be filed in work book along with Stormwater Outfall Inspection Data Form and attached to service order in Fieldport.

B. If complaints of illicit discharge are received by the office, inspect, sample and test suspected stormwater outfall following the steps described under "3.A." above.

4. SUSPECTED ILLICIT DISCHARGE

A. If illicit discharge is present in stormwater outfall, follow flow upstream and sample as needed to identify source of illicit discharge.

B. If source of illicit discharge and party responsible is found, send information into office for further action.

C. If source of illicit discharge is not found, contact office for further action.

APPENDIX D: Construction Stormwater Management in New Development and Redevelopment

Stormwater Construction Site Inspection Report

STORMWATER CONSTRUCTION SITE INSPECTION REPORT

Project Name	
Location	
General Contractor	

Type of Inspection:

Regular Pre-Storm Event During Storm Event Post-Storm Event

Site Specific BMP's

BMP	BMP Installed	BMP Maintenance Required	Corrective Action Needed and Notes
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	

Overall Site Issues

BMP/Activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
Are perimeter controls and sediment bariers adequately installed?	Yes ___ No ___	Yes ___ No ___	
Are storm drain inlets properly protected?	Yes ___ No ___	Yes ___ No ___	
Is the construction entrance preventing sediment form being tracked onto roadway?	Yes ___ No ___	Yes ___ No ___	

Print Name and Title: William Talarico, Engineering Aide II

Signature/Initials: WJT Date: _____

APPENDIX E: Post-Construction Stormwater Management in New Development and Redevelopment

Stormwater Construction Site Inspection Report

STORMWATER CONSTRUCTION SITE INSPECTION REPORT

Project Name	
Location	
General Contractor	

Type of Inspection:

Regular Pre-Storm Event During Storm Event Post-Storm Event

Site Specific BMP's

BMP	BMP Installed	BMP Maintenance Required	Corrective Action Needed and Notes
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	
	Yes ___ No ___	Yes ___ No ___	

Overall Site Issues

BMP/Activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
Are perimeter controls and sediment bariers adequately installed?	Yes ___ No ___	Yes ___ No ___	
Are storm drain inlets properly protected?	Yes ___ No ___	Yes ___ No ___	
Is the construction entrance preventing sediment form being tracked onto roadway?	Yes ___ No ___	Yes ___ No ___	

Print Name and Title: William Talarico, Engineering Aide II

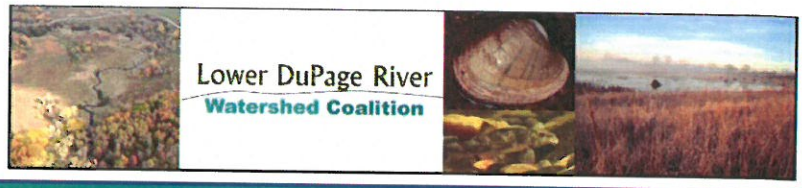
Signature/Initials: WJT Date: _____

APPENDIX F: Pollution Prevention/ Good Housekeeping for Municipal Operations

Lower DuPage Watershed De-Icing Workshop Flier

Dorothy, Lisa M

From: Lower DuPage River Watershed Coalition <jhammer@theconservationfoundation.org>
Sent: Monday, September 30, 2013 2:35 PM
To: Dorothy, Lisa M
Subject: Winter Deicing Workshops October 23 & 25



Winter Deicing Workshops

Chloride Fact Sheets Available

- Elected Officials
- Public Works Staff
- Homeowners
- Commercial Operators

Quick Links

Lower DuPage River Coalition Website

LDRWC Leadership

Officers:

Jim Holzapfel - President
City of Naperville

Doug Kissel - Vice President
Village of Plainfield

Lisa Dorothy-
Secretary/Treasurer

The Lower DuPage River Watershed Coalition is hosting two Winter Deicing Workshops this October. These cost effective workshops are central to addressing local water quality issues, implementing watershed plans across the county and high participation from area staff is critical. Participation in these workshops can also be included in your NPDES Permit reporting. Follow the links to download registration information.

Public Roads Workshop Tuesday October 23rd -
Registration for LDRWC members is $25, DRSCW and APWA members is $35 and includes a hot buffet breakfast. Please sign up your roads maintenance staff, superintendents and yourself. The draft agenda is given below:

7:30 - Registration and Breakfast
8:00 - Chlorides & Aquatic Life - Why do we care? Stephen McCracken - DRSCW
8:30 - Regulatory Update - Chlorides & TMDLs - Jim Huff - Huff & Huff, Inc.
9:00 - Chlorides and Groundwater - Daniel Abrams - IDNR
9:30 - Break
9:45 - Local Deicing Program
Village of Shorwood - Justin Williams
Village of Hanover Park - Scott Weber
City of Joliet - Mike Eulitz
Village of Bolingbrook
11:00 - Panel of Speakers - Open Forum Discussion
11.35 - Equipment Show

Parking Lots and Sidewalks Workshop
Friday October 25th -

City of Joliet

Board Members-at-Large:

Will County - Stormwater Committee

Dan Lobbes

The Conservation Foundation

Wade Jacobi

Village of Bolingbrook

Ralph Schultz

Forest Preserve District of Will County

Registration is $25 and includes a hot buffet breakfast.

Participants will hear from: Stephen McCracken, The Conservation Foundation/DRSCW and several local agencies on snow clearing options and programs.

Participants will learn about:
Chlorides and the river environment, materials, storage, facilities management planning pavement temperature sensing, and application rates.

I challenge every member to get one private deicing contractor and one other unit of government (library, school district, parks department) from their area to attend this workshop. Please help make this happen. This training can be reported in your NPDES report.

Thank you,
Jennifer Hammer
Lower DuPage River Watershed Coalition\
The Conservation Foundation

Forward email

SafeUnsubscribe

Trusted Email from Constant Contact FREE
Try it FREE today.

This email was sent to ldorothy@jolietcity.org by jhammer@theconservationfoundation.org | Update Profile/Email Address | Instant removal with SafeUnsubscribe™ | Privacy Policy.
The Conservation Foundation | 10S404 Knoch Knolls Rd | Naperville | IL | 60565

Department BMP Email Detailing Procedures

From: Eulitz, Michael C
Sent: Tuesday, September 17, 2013 11:57 AM
To: Roadways Dist 1; Roadways Dist 2; Roadways Dist 3; Roadways Dist 4; Roadways Dist 5
Cc: Cooper, Sharon L
Subject: National Pollution Discharge Elimination System (NPDES)

All,

As part of the NPDES permit that the City holds we have certain "best management practices" (BMP's) that we must maintain to continue to receive a storm sewer permit. This enables the City to construct storm sewer projects in the City without having to get design approval from the EPA. As you can imagine this is fairly important that the City maintain its permit and authority over storm sewer/sanitary sewer/water main design and construction projects. BMP's that we have been doing include monitoring the street sweeper routes and logging the sweeper dumps that are collected. In addition we have been separating and maintaining a record of when catch basins are cleaned by hand by the crews. We need to continue to monitor these activities by the following:

1. Continue to maintain a sweeper route and have your operators continue to log in date by subdivision or street area swept.
2. Reinforce to the employee who is picking up sweeper dumps to physically write on the dump ticket it is for "sweeper dumps". This helps me to differentiate between other materials that are taken to the landfill.
3. Continue to maintain the daily work logs indicating where individual catch basin cleaning was performed and signify by street address the locations. In addition, keep these forms separate so they may be stored in the NPDES file.

In addition to the above we need to begin to maintain records on the following:

4. Please maintain daily work logs indicating when and where ditch cleaning activities are performed and keep separate like we do for catch basin cleaning.
5. Please perform a visual dry weather screening on any storm sewer discharges where you may notice an illicit discharge such as discolored water or oil in the ditch line or by the storm sewer outlet pipes. Whenever you do a dry weather observation, even if it shows no illicit discharge, please maintain a record of that observation and once again keep separate for my record keeping.

Please let me know if you have any questions concerning these items and thank you for your efforts in these areas in the past, present and future!

Mike

Michael C. Eulitz
Roadways Engineer
City of Joliet
1203 Cedarwood Drive
Joliet, Ill 60435
PH: 815-724-3650
Fax: 815-724-3649
meulitz@jolietcity.org

Public Services Committee De-Icing Workshop Presentation

City of Joliet

Anti – Icing/De-Icing Program

MIKE EULITZ – ROADWAYS ENGINEER

The Beginning

- The City of Joliet has approximately 513 centerline miles of roadway.
- From 2003 to 2007 the City of Joliet used rock salt and calcium chloride to treat the roadways in the city of Joliet.
- From 2003 through 2008 the City of Joliet had 43 snow fighting trucks on the road.
- This meant that each truck driver was responsible for 11.9 centerline miles of roadway to treat and clear during a snow event.

CHALLENGES RELATED TO SNOW AND ICE TREATMENT AND REMOVAL

1. RESIDENT EXPECTATIONS
2. CITY COUNCIL EXPECTATIONS
3. SALT AVAILABILITY AND DELIVERY CHALLENGES
4. TRUCK AVAILABILITY
5. MANPOWER
6. DRIVER EDUCATION

HENDERSON
CHIEF
TopKick
ST73
PUBLIC WORKS

YEAR	SNOW (IN.)	CALL OUTS	SALT USAGE (TONS)	SALT PER INCH	SALT PER CALL OUT
‘03-’04	21.4	13	6652	311	512
‘04-’05	22.2	11	5713	258	520
‘05-’06	22.8	9	5566	245	619
‘06-’07	31.3	11	8850	283	805
‘07-’08	46.4	20	12188	263*	610*

* - CUT SALT BY 25% WITH GRIT FROM JANUARY TO END OF SEASON DUE TO LACK OF SALT AVAILABLE.

HOW DO WE SLOW DOWN OR REVERSE THE TREND??

IN THE WINTER SEASON OF 2007-2008 THE CITY OF JOLIET BEGAN TO CUT THE USE OF SALT BY THE FOLLOWING:

1. CUT SALT WITH 25% MIXTURE OF GRIT FOR ALL STREETS IN JANUARY OF 2008

2. CUT SALT WITH A 25% MIXTURE OF GRIT FOR ALL NEIGHBORHOOD STREETS IN THE WINTER SEASON OF 2008-2009.

3. CUT SALT WITH A 50% MIXTURE OF GRIT ON NEIGHBORHOOD STREETS AND INTRODUCING THE USE OF BEET JUICE MIXED WITH OUR CURRENT SALT PILES AT THE BEGINNING OF THE SEASON IN THE WINTER SEASON OF 2009-2010.

YEAR	SNOW (IN.)	CALL OUTS	SALT USAGE (TONS)	SALT PER INCH	SALT PER CALL OUT
‘07-’08	46.4	20	12188	263	610
‘08-’09	38.4	20	7404	194	371
’09-’10	41.6	20	9299	224	465

2008 – 2009 CHALLENGES

1. CUTTING THE SALT SUPPLY WITH GRIT WAS IN EFFECT BEGINNING TO CAUSE AN INCREASE IN SALT USE.

2. THE USE OF GRIT WAS CREATING ADDITIONAL MAINTENANCE ISSUES IN THE SPRING RELATED TO CLEANING THE STREETS.

3. THE USE OF GRIT WAS NOT VIEWED SATISFACTORILY BY THE RESIDENTS OF THE CITY BASED ON EXPECTATIONS.

4. REDUCTION IN WORKFORCE DUE TO DOWNTURN IN ECONOMY

RESULTS FROM 3 YEAR STUDY ON USE OF GRIT

THE CITY DETERMINED THAT GRIT ALONE WAS NOT THE ANSWER IN THE REDUCTION OF SALT USE AND GAINING A SATISFACTORY RESULT IN THE SNOW FIGHTING EFFORT.

THE DOWNTURN IN THE ECONOMY AND SUBSEQUENT REDUCTION IN FORCE RESULTED IN A WORKFORCE REDUCTION FROM 43 TRUCKS ON THE ROAD TO 32 TRUCKS ON THE ROAD.

THIS RESULTED IN EACH TRUCK DRIVER BEING RESPONSIBLE FOR 16 CENTERLINE MILES OF ROADWAY COMPARED TO 12.

THE CITY BEGAN TO EXPIREMENT WITH THE USE OF CHEMICAL MIXTURE OF BEET JUICE AND SALT BRINE IN THE WINTER SEASON OF 2010-2011.

BEGINNING THE WINTER SEASON OF 2011-2012 THE CITY OF JOLIET ROADWAYS DIVISION PURCHASED ITS OWN SALT BRINE MAKING EQUIPMENT.

THE CITY THEN BEGAN MIXING ITS OWN “COCKTAIL” FOR ANTI-ICING/DE-ICING COMPRISED OF SALT BRINE AND BEET JUICE.

IMMEDIATE BENEFITS WERE RECOGNIZED NOT THE LEAST OF WHICH WAS A REDUCTION IN LABOR COSTS AND SALT USAGE.

IN THE FINAL ITERATION THE CITY OF JOLIET HAS SETTLED ON A “COCKTAIL” CONSISTING OF A 75-15-10 RATIO OF SALT BRINE-BEET JUICE-CALCIUM CHLORIDE.

ANTI – ICING TECHNIQUES PERFORMED IN THE CITY

ANTI ICE TRUCKS TREAT HILLS AND BRIDGE APPROACHES

ANTI ICE TRUCKS TREAT MAIN ROUTES THROUGHOUT THE CITY

ANTI ICING IS BEING EXPANDED TO INCLUDE SELECT NEIGHBORHOODS UNTIL ADDITIONAL FUNDING IS AVAILABLE TO EXPAND THE ANTI ICING FLEET

PROVIDED SUFFICIENT VEHICLE FLEET AND MANPOWER BECOME AVAILABLE THE ANTI ICING PROGRAM WILL ENCOMPASS THE ENTIRE CITY OF JOLIET

BRINE
CALCIUM
BEET
JUICE

BSI
BSI

20

YEAR	SNOW IN INCHES	TOTAL SALT (TONS)	SALT USAGE TONS/INCH SNOWFALL
‘08-’09	38	7404	193
‘09-’10	41.6	9299	224
‘10-’11	44	9152	208
‘11-’12	21	4909	234
‘12-’13	20	4899	245

THE PAST 5 YEARS HAVE RESULTED IN A 23% REDUCTION IN SALT USAGE PER INCH SNOWFALL BY USING ANTI ICING AND DEICING TECHNIQUES

YEAR	CALL OUTS	OT COSTS	COST/CALL OUT
‘08-’09	20	$481,000	$24,050
‘09-’10	20	$447,443	$22,372
‘10-’11	19	$509,563	$26,819
‘11-’12	9	$185,648	$20,628
‘12-’13	11	$217,668	$19,788

ANTI-ICING TECHNIQUES HAVE RESULTED IN A 35% DECREASE IN OVERTIME COSTS PER CALL OUT OVER THE PAST TWO YEARS.

QUESTIONS?

THANK YOU

MIKE EULITZ – ROADWAYS ENGINEER
CITY OF JOLIET