

# STORMWATER MANAGEMENT PROGRAM PLAN



## CITY OF PROSPECT HEIGHTS COOK COUNTY, ILLINOIS

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## ILR40 Permit Requirements

The ILR40 NPDES Permit for MS4s requires that the City of Prospect Heights develop, implement, and enforce a stormwater management program plan (SMPP) designed to reduce the discharge of pollutants from the City to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Illinois Pollution Control Board Rules and Regulations (35 III. Adm. Code, Subtitle C, Chapter 1) and the Clean Water Act. The City's SMPP must include the six minimum control measures, described below.

### 6 Minimum Control Measures

The 6 minimum control measures to be included in the permittee's storm water management program are described below:

#### 1. Public Education and Outreach on Storm Water Impacts

- a. The City of Prospect Heights provides copies of the handout "Make Your Home the Solution to Stormwater Pollution", adapted from the IEPA, at the City Hall. This handout is included in Appendix B of this SMPP. The City also maintains a link to the MS4 webpage on its website, <http://www.gha-engineers.com/ms4/>, which contains educational links and materials. The following topics are covered by these educational resources:
  - i. Information on effective pollution prevention measures to minimize the discharge of pollutants from private property and activities into the storm sewer system, on the following topics:
    - A. Storage and disposal of fuels, oils and similar materials used in the operation of or leaking from, vehicles and other equipment (SWANCC website);
    - B. Potential impacts/effects on storm water discharge due to climate change;
    - C. Homeowner tips for improving stormwater runoff; and
    - D. Winter de-icing material storage and use.
  - ii. Information about green infrastructure strategies such as green roofs, rain gardens, rain barrels, bioswales, and permeable pavement that mimic natural processes and direct storm water to areas where it can be infiltrated, evaporated or reused:
    - A. EPA webpage "What is Green Infrastructure?"
    - B. Link to "Homeowners Best Practices"
    - C. EPA's Menu of Best Management Practices
  - iii. Information on the benefits and costs of such strategies and provide guidance to the public on how to implement them:
    - A. EPA webpage "What You Can Do: In Your Home"- tips for homeowner best management practices
    - B. EPA webpage "What is Green Infrastructure?"

- b. In addition to the Stormwater handouts available at the City Hall, the City of Prospect Heights has posted a link to the EPA's page on the NPDES program on its website. The City also includes an occasional posting in the City newsletter regarding stormwater and/or flooding.
- c. The City annually evaluates its public education and outreach BMPs and measurable goals, and reports on this evaluation in the Annual Report to the IEPA.

## 2. Public Involvement/Participation

- a. The City of Prospect Heights complies with State and local public notice requirements when implementing a public involvement/ participation program.
- b. The City of Prospect Heights holds a minimum of one public meeting annually for the public, to provide input on the City's SMPP and overall MS4 program. During the meeting, the City Engineer/Consultant will give a presentation on the SMPP, including status of compliance, BMPs and measurable goals that the City has defined, and results of the visual screening of the outfall. This requirement is met as part of a regularly scheduled board meeting.
- c. The City of Prospect Heights has reviewed environmental justice maps for areas within its jurisdiction. These maps are included in Appendix D. Block group 170318025051, just outside the Chicago Executive Airport, falls in a higher percentile for most environmental/demographic indicators. Information on environmental justice concerns may be found at <http://www.epa.gov/environmentaljustice/>.
- d. The City annually evaluates its public involvement/participation BMPs and measurable goals, and reports on this evaluation in the Annual Report to the IEPA.
- e. The City participates in the Lower Des Plaines River Watershed Council meetings. The MWRD completed a Detailed Watershed Plan for the Lower Des Plaines River Watershed in 2011, which documents stormwater problem areas and evaluates potential solutions. See Appendix H for exhibits of various proposed projects located within Prospect Heights. The Detailed Watershed Plan should be considered and utilized by the City whenever new development is proposed, particularly in stormwater problem areas, so that stormwater projects may be implemented.

## 3. Illicit Discharge Detection and Elimination (IDDE)

- a. The City of Prospect Heights has developed a program to detect and eliminate illicit connections or discharges in the MS4, including illegal dumping. The City has 7 outfalls which discharge to Crystal Creek, a tributary of the Des Plaines River. The IDDE program includes:
  - i. An annual dry weather inspection (visual) of the 18 outfalls;
  - ii. A contact/outreach [form](#) on the MS4 webpage (linked on the City website) for the public to report a potential illicit discharge;

- iii. The Public Works Department phone number posted on the City website where residents may report potential illicit discharge emergencies/spills/dumping;
  - iv. Annual water quality testing of the parameters required by the ILR40 permit, at two upstream locations and one downstream location along McDonald Creek.
- b. The City of Prospect Heights has developed a storm sewer system atlas, showing the location of the outfall and the location of all waters that receive discharges from those outfalls. The storm sewer system map will be updated as necessary, to include any modifications to the sewer system. The storm sewer atlas is included as Appendix C.
  - c. Non-storm water discharges into the City's storm sewer system are prohibited by the City's Sewer Ordinance (8-5-12) and Stormwater Runoff Ordinance (8-1-3). As written in the ordinance, a penalty in the form of a fine will be imposed for either cause or permitting of non-stormwater discharges. These ordinances are included in Appendix F.
  - d. In addition to its IDDE detection/elimination program and Sewer Ordinance, the City educates public employees, businesses, and the general public about the hazards associated with illicit discharges via handouts at the City Hall, and educational links on the MS4 webpage, as previously discussed.
  - e. The City annually evaluates its illicit discharge detection and elimination BMPs and measurable goals, and reports on this evaluation in the Annual Report to the IEPA.

#### 4. Construction Site Storm Water Runoff Control

- a. The City of Prospect Heights implements the following procedures for Construction Site Stormwater Runoff Control:
  - i. The City of Prospect Heights complies with the ILR10 NPDES Permit for Storm Water Discharges from Construction Activities, which is applicable for any development or construction activity resulting in a land disturbance greater than or equal to 1 acre.
    - A. All regulated construction sites have a storm water pollution prevention plan (SWPPP) that meets the requirements of the ILR10 Permit, including management practices, controls, and other provisions at least as protective as the requirements contained in the Illinois Urban Manual, 2014, or as amended including green infrastructure techniques where practicable;
    - B. Sites requiring a SWPPP will have a signed certification on site, as well as a copy of the permit available;
    - C. Inspections are performed in compliance with the ILR10 permit.
  - ii. City of Prospect Heights's Building & Development Department oversees the entire permit process for any residential, commercial, and industrial construction throughout the City. The permit process requires that the property owner or contractor submit a project proposal/plans, which are reviewed for code compliance. Upon correction and approval of the construction documents, the permit will be issued. The contractor(s) shall register with the city prior the issuance of the permit. Inspection(s) are required throughout various stages of the project; and approval is expected prior to continuing onto the next phase.

- A. The City's Building Code (Chapter 4) includes International, National, and State codes regarding building, property maintenance, and safety, for residential, commercial, and industrial properties.
  - B. The City's Soil Erosion and Sediment Control Code (Chapter 7) includes requirements for erosion control for general site development, and for preservation of drainage and waterways. The Code requires that various measures be taken to control erosion and sedimentation that are adequate to assure that sediment is not transported from the site by a storm event of 10-year frequency or less. These requirements apply to all development activities. All projects involving development in a floodway must have an erosion control plan for disturbed areas. A copy of this code is included in Appendix F.
- iii. All Cook County communities are governed by the Metropolitan Water Reclamation District of Greater Chicago's (MWRD) Watershed Management Ordinance (WMO), which sets requirements for Erosion and Sediment Control. This is intended to ensure that the construction site operator designs, installs, and maintains effective erosion controls and sediment controls to minimize the discharge of pollutants. Such controls area designed, installed, and maintained to:
- A. Control storm water volume and velocity within the site to minimize soil erosion;
  - B. Control storm water discharges, including both peak flow rates and total storm water volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion;
  - C. Minimize the amount of soil exposed during construction activity;
  - D. Minimize the disturbance of steep slopes;
  - E. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting storm water runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
  - F. Provide and maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal, and maximize storm water infiltration, unless infeasible; and
  - G. Minimize soil compaction and preserve topsoil, unless infeasible.
- iv. The City of Prospect Heights complies with MWRD's enforcement of the WMO, which requires all waste generated from construction site development (including building waste, concrete truck washout, chemicals, littler, sanitary waste, etc.) to be properly disposed of and prevented from entering the MS4 via stormwater runoff.
- v. Site plan reviews are conducted by the City Engineer for all major developments, which incorporate consideration of potential water quality impacts and site plan review of individual pre-construction site plans by the permittee to ensure consistency with local sediment and erosion control requirements;

- vi. The City Engineer/Enforcement Official is responsible for plan review and floodplain development permit issuance for all development activities within the Special Flood Hazard Area within the city's jurisdiction, and no development in a floodway can occur without a permit from the City Engineer;
  - vii. The City of Prospect Heights maintains a public comment form on the MS4 page on its website, where the public may report on potential stormwater discharges from construction sites.
- b. The City complies with all requirements of the ILR10 permit and the WMO, and enforces penalties for non-compliance with its erosion control ordinance. The City Engineer is responsible for obtaining from the applicant, copies of all federal, state, and local permits that may be required. The enforcement officials (Chief Inspector and City Engineer) will not approve a development plan until all other permits have been obtained.
  - c. The City annually evaluates its construction site storm water control BMPs and measurable goals, and reports on this evaluation in the Annual Report to the IEPA.

5. Post Construction Storm Water Management in New Development and Redevelopment

- a. For all new development and redevelopment, the City of Prospect Heights supports the MWRD's requirements in the WMO for reduction of the discharge of pollutants and the volume and velocity of storm water flow. The WMO has established standards for post construction stormwater management, including volume control BMPs. The WMO requires a Stormwater Management Submittal be included with the Watershed Management Permit, which includes following elements (when applicable): Site Runoff Plan, Stormwater Calculations, Base Flood Elevation Determination, Volume Control Plan, and Detention Facility Plan.
  - i. The City of Prospect Heights supports the MWRD's enforcement of Permanent Erosion Control Requirements, described in Article 4 of the WMO. Permanent erosion control practices are maintained until permanent stabilization is achieved.
  - ii. A Maintenance and Monitoring Plan Submittal, if required, plan must include all measures appropriate for the post-construction phase. These measures are described in Article 9 of the WMO.
- b. The City's Development Permit code (7-1-8-1), included in Appendix F, requires that requires that final stabilization and restoration measures must be included in the SESC plan for detention in floodplains, for disturbed areas in flood fringe areas, and in designated floodways. This plan shall also include a description of final stabilization and revegetation measures, and the identification of a responsible party to ensure post-construction maintenance.
- c. The City of Prospect Heights, through its Building & Development department, ensures that all regulated construction sites have post-construction management plans that meet or exceed the requirements the ILR10 NPDES permit including management practices, controls, and other provisions at least as protective as the requirements contained in the most recent version of the Illinois Urban Manual, 2014.

- d. The City annually evaluates its post-construction storm water management BMPs and measurable goals, and reports on this evaluation in the Annual Report to the IEPA.

6. Pollution Prevention/Good Housekeeping for Municipal Operations

- a. The City of Prospect Heights Public Works Department is responsible for City operations and maintenance activities. These maintenance activities include: street sweeping, snow and ice control, storm and wastewater collection systems, grounds maintenance, vehicle maintenance and street maintenance throughout the City. The Public Works department oversees the maintenance of streets, curbs, gutters, and storm sewers to ensure that they are smooth, clean, safe, and structurally sound for vehicular travel in a variety of weather conditions.
- b. The City of Prospect Heights discharges to McDonald Creek, which is tributary to the Des Plaines River. The Des Plaines River is listed as impaired for chloride. The City implements various BMPs to reduce salt usage on roadways, to reduce the amount of chloride entering the waterway. The City accomplishes this through:
  - 1. Participation in the Lower Des Plaines River Watershed Council meetings, where chloride reduction strategies and updates are routinely discussed;
  - 2. The appropriate City staff members have attended APWA seminars for Snow and Ice Management, and have reviewed additional de-icing Best Management Practice training materials.
  - 3. Tracking salt usage annually using the tracking form included in Appendix G.
- c. The City of Prospect Heights, in addition to compliance with the NPDES program, maintains compliance with the National Flood Insurance Program's (NFIP) Community Rating System (CRS) program. The CRS program incentivizes community floodplain management activities to reduce flood risk, and encourages a comprehensive approach to floodplain management.
- d. The City annually evaluates its pollution prevention/good housekeeping for municipal operations BMPs and measurable goals, and reports on this evaluation in the Annual Report to the IEPA.