CITY OF RENSSELAER
RENSSELAER COUNTY, NEW YORK

# Stormwater Management Program Plan

MAY 2020

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**CITY OF RENSSELAER**
**STORMWATER MANAGEMENT PLAN**

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# CITY OF RENSSELAER
# STORMWATER MANAGEMENT PLAN

## I. INTRODUCTION

The City of Rensselaer has developed, planned and implemented a Stormwater Management Plan to address pollutants of concern and reduce pollutant discharges from their small MS4 system to the maximum extent practicable, to protect water quality and to satisfy the appropriate water quality requirements of the Environmental Conservation Law and the Clean Water Act.

## II. LOCAL LAWS

Municipalities in New York State have the power and responsibility for decisions that determine how the community uses not only its land, but also its water and other natural resources. The City of Rensselaer adopted Local Law entitled "Storm Water Management" – Article 1 " Erosion and Sediment Control", and Article 2 – " Illicit Discharges and Connection to Storm Sewer Systems", to meet the requirement of the SPDES General Permit for Stormwater Discharges from MS4s **(Appendix A).** This requirement ensures that local stormwater management programs meet the community's objectives for protecting public health and welfare and take into account the individual locality's natural resources.

## III. INTER-MUNICIPAL AGREEMENTS AND OTHER LEGAL AUTHORITIES

The City of Rensselaer is a part of an Inter-municipal agreement in order to meet the requirements of the Municipal Separate Storm Sewer Systems SPDES General Permit for Stormwater Discharges. Inter-municipal agreements are allowed under General Municipal Law Article 5-G, which states that two or more municipalities may enter into an agreement to undertake any activity that is allowed pf individual municipalities under general or special laws. An Inter-municipal cooperation will enable the City of Rensselaer to share elements of their stormwater management programs with neighboring jurisdictions in the same watershed. Working through an Inter-municipal Cooperation costs and services are shared among the municipalities leaving only elements that are specific to the City of Rensselaer to be developed.

The City of Rensselaer currently participates in the Rensselaer County Communities Coalition. The Inter-Municipal Agreement is located in **Appendix B.** As a member of the Inter-municipal Committee, the City of Rensselaer will develop a sustainable IDDE program, understand MS4 permit requirements and establish a mechanism for long term funding.

## IV. STAFFING AND STAFF DEVELOPMENT PROGRAMS

### A: Staffing

The City of Rensselaer's stormwater management program responsibilities lie under several departments. These departments consist of the City Common

Council, Planning Commission, Zoning Board of Appeals, Building and Planning Department, Public Works Department, and the City's Engineering Department will be utilized for Technical advice to the above entities.

The stormwater management responsibilities of the **Common Council** are to adopt local laws and authorize the actions of other municipal officials with regards to stormwater management.

The **Planning Commission/Planning Department** is responsible for approving subdivision and site plans, which includes the review of the Stormwater Pollution Prevention Plan and special use permits. In addition the **Director of Planning** will plan, coordinate and be the Contact Person for Stormwater related Public involvement Events. The **City Engineer** will review the Stormwater Pollution Prevention Plan in accordance with the New York State Stormwater Design Manual and the New York State Erosion and Sediment Control Manual. The weekly Construction Site Inspections during construction will be performed by the **Building Inspector**. The Planning Commission has the authority to place conditions on approvals reflecting stormwater management goals.

The **Zoning Board of Appeals** is limited to interpreting the zoning law. When a Stormwater Pollution Prevention Plan is submitted as part of the application, the **City Engineer** will review the Stormwater Pollution Prevention Plan in accordance with the New York State Stormwater Design Manual and the New York State Erosion and Sediment Control Manual. The **Building Inspector** will perform the weekly Construction Site Inspections during construction. The **Zoning Board of Appeals** has the authority to place conditions on approvals reflecting stormwater management goals.

The **Building Inspector** has the responsibility of issuing building and other permits and enforces the law. The Building Inspector will perform periodic inspections of construction sites and post construction stormwater management practices as needed to assist the **Stormwater Officer ( SWO ).**

The **Public Works Department (DPW)** has the responsibility of installing and maintaining storm drain systems and other stormwater management facilities, address erosion problems on roads and bridges, and carries out emergency maintenance. The City of Rensselaer's **SWO** will be recruited out of the DPW. and will fall under the Sewer and Water sub-department, it is preferable that this individual be the Foreperson, however, any employee of this DPW Department may be assigned this position at the City of Rensselaer's determination of maximum benefit to the City. The City of Rensselaer employs 25-30 staff members in the municipal Public Works Department

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### B: Staff Development Programs

The Director of Planning, Assistant Director of Planning, Superintendent of Public Works, Building Inspector, Code Enforcement Officer, Stormwater Officer and other municipal personnel will attend yearly training. All training will be documented to ensure adequate training has been provided to each staff member based on their job responsibility. DPW department will have quarterly stormwater training meetings consisting of watching training videos in a group setting. After the video, everyone takes a written exam. Additional stormwater training will be provided from time to time with the Rensselaer County MS4 Coalition meetings. Personnel whom attend the meetings will train the 'personnel that did not attend the seminars.

Additional training will be provided to the Public Works Department including confined space and air quality monitor for confined space. The Stormwater Management Officer and Coordinator will attend monthly meetings and training sessions with the Rensselaer Counties Communities Coalition.

Records of these training events and individuals taking said training will be kept in a binder labeled “MS4 Training” and located in Engineering Department and maintained by the Engineer and or his assistant.

## V. ORGANIZATION CHARTS

The Organization Chart for the City of Rensselaer is located in **Appendix C.**

## VI. PROGRAM BUDGET

The City of Rensselaer has implemented a budget for the Stormwater Management Program. The budget is located in **Appendix D.** The budget includes costs such as cleaning catch basins, sweeping streets and sidewalks, brush and leaf pick up, weekly construction inspections, training, storm sewer television, inter-municipal agreement, and distribution of stormwater information.

## VII. POLICY, PROCEDURES AND MATERIALS FOR EACH MINIMUM MEASURE

### A. Minimum Control Measure 1: Public Education and Outreach

The City of Rensselaer will conduct ongoing public education and outreach about the impacts of stormwater on local waterbodies, the pollutants of concern and the steps that can be taken to reduce stormwater pollution.

The City of Rensselaer will promote a Pet Waste Program in one of the City's Parks, Riverfront Park and Public Esplanade will maintain pet waste containers and signs in the area. The City of Rensselaer will supply free bags for the Pet Waste Program and document how many are used per reporting year.

The City of Rensselaer will distribute literature with building permits in regards to Erosion and Sediment Control. If there has been a serious stormwater or sewer issue in a particular area or a need to put out information to City

residents, direct mailings of stormwater related information should be mailed to tax-payers and businesses to inform and educate them.

Literature displays are located at the City Hall and at the Library for the public to pick up literature that interests them. The designated person from the City of Rensselaer, will monitor these displays by taking inventory at least every other month and record these inventories to monitor usage, this individual will also restock any items that are low or depleted.

Documentation of Public Outreach, materials and inventories will stored in a separate binder labeled **"Appendix L : Documentation of Public Outreach Efforts/Public Comments"** This binder will be maintained and kept in the City Planning Department by the Planning Director or the individual assigned by the Planning Director.

## ONGOING GOALS FOR THIS MCM

1. Maintain and expand Pet Waste Program – quantify annual usage.
2. Maintain Public Informational Kiosks at City Hall and Library, upgrade and increase materials available, create additional kiosk locations.
3. Insure Hotline Number Printed on All Materials.
4. Focused annual mailings to City of Rensselaer Businesses and Citizens.

## B. Minimum Control Measure 2: Public Involvement/Participation

The City of Rensselaer's goal is to increase the public involvement and participation. To achieve this goal the City of Rensselaer has identified the contact person for these type of events as the Director of Planning. The City of Rensselaer posts the annual report on the City website, The **City Clerk** will be responsible for posting the Annual Report on the City's website when complete. The public is notified of the annual report in the local newspapers. The residents are encouraged to comment on the annual report.

The City of Rensselaer will promote a Pet Waste Program pet waste containers will be located at various public areas in the City, with primary focus at the two large Riverfront parks, maintaining pet waste containers and signs in these areas. The City of Rensselaer will supply free bags for the Pet Waste Program and document how many are used per reporting year.

The City of Rensselaer will encourage public involvement by sponsoring a highway clean up program, park clean-up event and reforestation programs as such as a rain garden and street trees. This will be evaluated by documenting the number of bags of garbage picked up along the highway, and the number of reforestation programs completed. The number of people attending these programs is sometimes difficult to document but an effort will be made.

The City will offer House Hazardous Waste Drop off day. City of Rensselaer will promote the Rensselaer County Hazardous Waste Day and dispose of the various electronics with the appropriate entities.

The municipal staff will be sent to storm water management training via seminars, workshops and also in house meetings. All stormwater management training will be documented. The staff that attends training will be responsible to train the other staff.

The City will keep the New York State Stormwater Design Manual and the Erosion and Sediment Control manual for training and reference at the City Hall.

Documentation of Public Outreach Events will stored in a separate binder labeled **"Appendix L : Documentation of Public Outreach Efforts/Public Comments"** This binder will be maintained and kept in the City Planning Department by the Planning Director or the individual assigned by the Planning Director.

### ONGOING GOALS THIS MCM

1. Maintain, monitor, and expand Pet Waste Program
2. Insure at least one educational event per year
3. Find new way to increase public involvement in maintaining stormwater related events..

## C: Minimum Control Measure 3: Illicit Discharge Detection Elimination

**Definition of an Illicit Discharge**

IDDE stands for Illicit Discharge Detection and Elimination. The term "illicit discharge" is defined in the City of Rensselaer's local law as entry into the Municipal Separate Storm Sewer System of "any materials other than stormwater" with some defined exceptions.

**Illicit discharges can be categorized as either direct or indirect.**

**Examples of direct illicit discharges:**

- Sanitary wastewater piping that is directly connected from a home to the storm sewer,
- Materials (e.g., used motor oil) that have been dumped illegally into a storm drain catch basin,
- A shop floor drain that is connected to the storm sewer, and
- A cross-connection between the sanitary sewer and storm sewer systems.

**Examples of indirect illicit discharges:**

- An old and damaged sanitary sewer line that is leaking fluids into a cracked storm sewer line, and
- A failing septic system that is leaking into a cracked storm sewer line or causing surface discharge into the storm sewer.

**Typical illicit surface discharges that may be observed by field personnel include:**

- Overflows of sanitary sewerage systems;
- Untreated radiator flushing wastewaters;
- Untreated engine degreasing wastes;
- Over-application of fertilizers, pesticides or herbicides onto landscaping and impervious surfaces;
- Dewatering of construction sites;
- Improper washing of concrete ready-mix trucks;
- Commercial use of soaps and detergents: used in cleaning pavement, vehicles and equipment outside;
- Latex/oil-based paints and solvents disposed of in gutters or inlets;
- Restaurant grease: improper disposal;
- Private/Public utilities improperly storing chemicals or maintaining equipment;
- Leaking dumpsters;
- Car lots for used and new vehicles dripping fluids on the pavement;
- Fuel spills;
- Hazardous materials dumped along the roadway; and Unidentified substances dumped in secluded areas.

**WHY ARE IDDE EFFORTS NECESSARY?**

Discharges from MS4s often include wastes and wastewater from non stormwater sources. Illicit discharges enter the MS4 through either direct illicit connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the MS4 from cracked sanitary systems, spills collected by drain outlets, or paint or used oil dumped directly into a drain). The result is untreated discharges that contribute high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to waters of NY State. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human health.

## IMPLEMENTATION RESPONSIBILITY

The City of Rensselaer Department of Public Works (DPW Commissioner or point person designated by the Commissioner), the MS4 Stormwater Officer (SWO), and City Engineer have primary responsibilities to cooperate and collaborate in the course of their normal duties and through special procedures listed here to identify and respond to potential illicit discharges.

### MCM STEP 1 -MS4 INFRASTRUCTURE INVENTORY

#### PURPOSE

In order to effectively identify potential pollution sources it is essential to have basic data about the stormwater system components.

#### EXISTING DATA

In 2004, Clark Patterson Associates prepared a CAD based map of municipal storm, sanitary and combined sewer infrastructure. This comprehensive inventory included pipe routing, pipe diameters, pipe materials, stormwater inlet locations, and (many) outfall locations. In 2008 all stormwater outfall locations on this map were field-verified and several new discoveries were added to the inventory during annual dry weather monitoring. In 2009, storm sewer shed boundaries were mapped into the GIS system. In 2010, catch basin inlets were field-verified and digitized by hand from digital orthophotos into the GIS system. Additionally, data on surface waters, built stormwater practices, and municipally owned or managed facilities have been mapped. Businesses with activities having potential to act as pollutant sources have also been inventoried in the GIS system to help identify possible IDDE target areas.

#### PLANNED DATA COLLECTION

The City of Rensselaer Planning Office has purchased a Trimble GeoExplorer GPS Receiver to further map the MS4 drainage facilities (outfalls, catch basin inlets, and pipes) with sub-foot accuracy. A minimum of 33% of all municipal catch basins and manholes will be re-mapped at the higher accuracy, measurements taken of their dimensions, and pipe connections inventoried for the next 3 years until the digital system inventory is complete.

#### PLANNED AS-BUIILT DATA COLLECTION

As-built drawings provide location as well as feature information in a concise manner. The City of Rensselaer plans to require that as-built plans (electronic) with geo-references compatible with the municipal GPS system be submitted to document infrastructure location for all new development. This will allow the city to maintain a current, accurate source of information for the MS4.

#### UPDATES

In order to maintain a central, accurate database, the City Engineers and DPW Staff will collaborate with the Planning Office to identify and add to the system database any new information or changes as infrastructure is discovered, repaired or replaced. These updates should be in electronic or digital format whenever practical or feasible, and staff has received sufficient training to generate or edit this data.

## MCM STEP 2 IDENDTIFY PRIORITY AREAS

City of Rensselaer staff has identified priority areas that are considered to have potential to contain sources of illicit discharges. The categories below are considered while identifying priority areas for the City. Outfalls whose sewer sheds include priority areas or clusters of priority target uses will receive regular (annual) dry weather inspections. Primary outfalls/Discharge Points (collecting from four or more catch basins) will generally have higher priority than secondary outfalls and Discharge Points.

**Commercial/industrial areas**

These areas have been found in some communities' IDDE programs to (a) have significant numbers of illicit connections and/or (b) have discharges with a high potential to affect water quality (Tuomari, 1999 and Pitt et al., 1993). Specific business sectors can be prioritized (e.g., businesses subject to waste water pretreatment rules, businesses falling under certain Standard Industrial Classification [SIC] codes, or business sectors with a record of enforcement actions).

Clusters of businesses with individual NPDES permits may also be an indicator. Clusters of potential illicit discharge sources in the City of Rensselaer include the following target areas / uses: heavy industrial and fuel storage/loading sites in the port district; any automotive service station or automotive-related commercial establishment in the city - particularly those clustered along Columbia Turnpike, the Broadway business district, and South Street; and Laundromats.

**Older areas of the City**

Older development may predate more stringent construction codes regarding illegal connections and may have deteriorating sanitary sewer and/or storm sewer infrastructure that can lead to infiltration problems. In the course of regular maintenance and repair activities, DPW staff will check for evidence of illicit connections and report these to the DPW Commissioner, the Stormwater Officer, and City Engineer.

The Fort Crailo and Bath neighborhoods contain several significant historic structures while the largest concentration of structures built before 1850 are located in the blocks bounded by Broadway, Third Avenue, McNaughton Avenue, and Partition Street.

**Areas where there have been repeated complaints**

Areas where illegal dumping or apparently contaminated discharges have been repeatedly reported are obvious priority targets. To date the downtown business district has been identified by DPW staff as a source of multiple minor incidents.

The city has established a stormwater complaint hotline and notification system using the police dispatcher's office and DPW staff. Logging / documentation of complaints and DPW response will help further identify priority areas where repeated complaints occur.

**Locations identified from ambient water quality sampling data**

The locations of high levels of particular contaminants (e.g., bacteria) can help to target priority outfalls. When an illicit discharge is suspected or identified through dry weather monitoring, the City of Rensselaer will obtain and send a grab sample for laboratory testing. The following indicators will be tested: pH, ammonia, conductivity, surfactants, fluoride, & total coliform.

In order to accurately identify actual levels of POCs entering the MS4, water samples will be periodically obtained from all municipal storm sewer sheds, particularly primary outfalls collecting from 4 or more catch basins. This sampling will also help indicate which geographic

sections may have greater problems. If no significant hot spots of pollutant indicators are detected, then sampling and testing will provide useful background levels for future evaluations.

## MCM STEP 3 – FOCUS CONCERNS

## POLLUTANTS OF CONCERN

1) PCBs (Hudson River 303d listed)
2) Debris (litter/ trash)
3) Sediment (vehicle traffic, air deposition, construction sites)
4) Sanitary system effluent
5) Petroleum products & other automotive chemicals
6) Nutrients (fertilizer, leaves, grass clippings, detergents, dumpster leachate)
7) Debris (litter/ trash)
8) De-icing salts
9) Pesticides & Herbicides
10) Runoff volume (stresses CSO capacity)

### Geographic Areas of Concern:

1) Upper Broadway (litter & sediment)
2) Columbia Turnpike (litter & sediment)
3) Downtown Business District (petroleum products, nutrients)
4) Upper Washington neighborhood (litter & nutrients and chemicals from larger lawns)

### Target Audiences:

1) Residents (litter)
2) Auto Repair or Sales Establishments (petroleum & automotive products)
3) Homeowners (yard waste, de-icing salt, yard care chemicals, petroleum and automotive chemicals, detergents)
4) Private lawn and yard maintenance / landscaping contractors
5) Laundromats, car washes, auto detailers (detergents)

## MCM STEP 4 - INFRASTRUCTURE INSPECTION SCHEDULE

**Dry Weather Monitoring**

A minimum of 20% of all MS4 outfalls will be inspected annually. All primary outfalls in identified priority areas will be inspected annually. Inspections will be carried out by Planning or DPW Staff as feasible. Inspections will only be conducted following a minimum of 48 hours or dry weather (1/10 of an inch of precipitation or less).

An outfall inspection form will be completed for each MS4 outfall pipe inspected and record maintained in the office of the Stormwater Officer. Additionally, all CSO outfalls will be inspected monthly by DPW and record maintained in their offices. Engineering and DPW staff will collaborate to maintain the MS4 database to log and track inspections and identified issues.

**Routine Maintenance Inspections**

DPW staff will conduct annual inspections of all of the MS4 manholes following a minimum of 48

hours of dry weather as above. Frequency of inspections will be greater for high priority areas. These inspections will be recorded by field staff on DPW work orders and the information passed to the Planning Office for tracking using the MS4 database.

During the course of regular inspections and/or repair of catch basin inlets and manholes, DPW staff will also check for evidence of illicit discharge as indicated by unusual flow levels and/or visual indicators.

Indications of a possible illicit discharge in the City of Rensselaer MS4 will occur through dry-weather outfall inspections, observations during routine inspections or maintenance by DPW staff, citizen reports to the stormwater hotline or the City of Rensselaer web-site, or other miscellaneous means. The City has established a Reporting and Response procedure with is found both in the IO&M manual for the City's Combined and Separated Sewer Systems as well as an Appendix to this Program located in a separate binder labeled "Appendix I – Standard Operating Procedures – City SWMP". Binder will be co-located with the City SWMP, and additional copies will be distributed to designated departments.

## MCM STEP 5 - MUNICIPAL STAFF ISSUE REPORTING

Field staff shall be observant in their daily routines to watch for evidence of illicit discharges into or unusual flows from the storm drain systems. Any municipal staff who identify or hear about potential illicit discharge into or from the stormwater system in the course of their daily duties or contact with the general public should contact the DPW MS4 point person, who will act by following the response protocol above.

Field staff should observe MS4 flows for odor, color, turbidity, and floatable matter. Unusual flows, pungent odors and discoloration or oil substances in the water, stains or waste residues in basins, ditches, channels, or drain boxes are indicators of an illicit discharge.

**Typical illicit surface discharges that may be observed by field personnel include:**

- Overflows of sanitary sewerage systems;
- Untreated radiator wastewater flushing
- Untreated engine degreasing wastes
- Over-application of fertilizers, pesticides or herbicides from landscaping
- Dewatering of construction sites
- Improper washing of concrete ready-mix trucks
- Commercial use of soaps and detergents when cleaning vehicles outside
- Latex/oil based paints and solvents disposed of in gutters or inlets.
- Restaurant grease improperly disposed of
- Private/Public Utilities improperly storing chemicals, or maintaining equipment.
- Leaking dumpsters
- Auto dealerships, vehicles dripping fluids onto pavement.
- Fuel spills
- Hazardous materials dumped along roadways
- Unidentified substances illegally dumped in secluded areas

## MCM STEP 6 - TRAINING

All City DPW staff will be informed of these procedures as part of annual MS4 training. New hires will be informed as part of initial orientation by the DPWMS4 point person. City DPW

staff with duties related to the MS4 system (catch basin cleaning, street sweeping, pipe repair/ replacement) will be trained in basic IDDE identification.

Annual refresher/update trainings will also be scheduled with field staff to address any changes to and/or concerns with these procedures.

## MCM STEP 7 - TRACKING ILLICIT DISCHARGE EVENTS

It is important that the appropriate information be gathered and documented when responding to an illicit discharge report. In some cases, the incident may require legal action. Legal enforcement and/or penalties may depend upon the integrity of the information that is gathered at the scene.

In extreme, rare cases, the incident could become the focus of a judicial process that would require the first staff person on site to provide valuable information, and possibly testimony and evidence. For that reason, it is necessary to be as thorough as possible on the initial investigation.

DPW staff investigating a potential illicit discharge will collect the information below and record them on work order forms. DPW staff will collaborate with planning staff to update the MS4 tracking database:

- Date and time of inspection,
- Type of inspection (routine or suspected illicit discharge),
- Location of facility inspected,
- Method of inspection
- Type of illicit discharge
- Probable source of illicit discharge
- Action taken

Records of these Incidents should be kept by the **SWO** in a binder labeled **"Illicit Discharge Events"**

## Equipment and Material for site visits by the field crews:

- Dye
- High powered lamps/flashlights
- Manhole hook
- Site plans, building diagrams, sewer system mapping
- City Standard Operating Procedures
- Work Order, Illicit Discharge Forms
- Name of Contact at Facility
- Camera
- PPE, Confined Space entry equipment
- Two-way radios or cell phones
- Traffic Cones
- Phone numbers for Fire and Police

## MCM STEP 8 – ENACT LEGAL AUTHORITY

**ILLICIT DISCHARGE ORDINANCE**

In late 2007, the City adopted a model IDDE law as Chapter 145, Article II of the City Code (§145-8 to §145-25). While emphasizing education and voluntary compliance, this law empowers the City of Rensselaer to inspect and monitor, impose fines, block / remove illicit connections, and take emergency actions in order to stop illicit discharges in compliance with its MS4 permit requirements.

**ALLOWED MS4 DISCHARGES**

The following are not considered illicit discharges under the local law:

- Water line flushing / discharges from potable water sources
- Landscape irrigation / return flow
- Lawn watering
- Springs
- Dechlorinated swimming pool discharges
- Diverted stream flows
- Water from crawl space pumps
- Rising groundwater
- Footing drains
- Uncontaminated groundwater infiltration D Uncontaminated pumped groundwater D Individual residential car washing
- Flows from riparian habitats and wetlands
- Foundation drains
- Air conditioning condensation
- Street wash water
- Water from fire-fighting activities
- Flows from riparian habitats and wetlands
- Discharge from any other water source not containing pollutants

**1. PROHIBITED MS4 DISCHARGES**

The following are considered to be illicit (illegal) discharges to the City of Rensselaer's MS4 (this list is not considered all inclusive):

**a. <u>Sanitary wastewater sources such as:</u>**

- Sanitary wastewater (usually untreated) from improper sewerage connections, exfiltration or leakage;
- Effluent from improperly operating or improperly designed septic tanks
- Overflows of sanitary sewer systems.

**<u>Automobile maintenance and operation sources such as:</u>**

- Untreated (e.g., through a well maintained oil/water separator) commercial car wash wastewaters;
- Untreated radiator flushing wastewaters;
- Untreated engine degreasing wastes;
- Improper oil, gasoline, and other automotive fluids disposal;
- Leaky underground storage tanks; and
- Untreated leaking of oils, gasoline and other automotive fluids for automobiles.

**b. <u>Landscape irrigation sources such as:</u>**

- D Direct spraying of fertilizers, pesticides or herbicides onto impervious surfaces;
- Over application of fertilizers, pesticides or herbicides onto landscaping.

**c. <u>Other sources such as:</u>**

- Laundry wastes;
- Non-contact cooling waters;
- Metal plating baths;
- Dewatering of construction sites;
- Washing of concrete ready-mix trucks;
- Contaminated sump pump discharges;
- Improper disposal of household toxic wastes.
- Spills from roadway and other accidents;
- Chemicals, hazardous materials, garbage, and sanitary sludge landfills and disposal sites.
- Commercial use of soaps and detergents; use in cleaning pavement, vehicles and equipment;
- Sediment from lack of or improper maintenance of erosion and sedimentation controls;
- Latex/oil-based paints & solvents;
- Trash and debris: littering and dumping, household or construction waste, leachate from garbage receptacles
- Restaurant grease from either improper disposal or poorly maintained grease traps.

## GOALS THIS MCM GOING FORWARD

1. Continue marking Storm Structures with “Drains to” information
2. Insure Residential Trash be in covered Garbage Cans
3. Maintain Hazard Waste Days
4. Maintain outfall inspections
5. Hotline number on printed education Material
6. Insure target number of Catch basins cleaned yearly
7. All Parks to have covered trash cans
8. At DPW Garage cover catch basins next to creek during oil deliveries
9. Post No Dumping signs at Quackenderry, Port Area, Railroad and Fort Crailo
10. Testing of Creeks in City performed yearly
11. A file for each municipal facility will be kept. Each file will contain self-audits, floor plans, inspections, and documentation of spills
12. Semi-annual training on spills and stormwater issues of all DPW staff
13. All reports of stormwater, spill or discharge issues will be investigated by the City within 24 hours. A report will be filled out stating date and time of notification and of response, outcome of investigation. On a yearly basis, actual response time and policy response time will be evaluated

## D. Minimum Control Measure 4: Construction Site Stormwater Runoff Control

The City of Rensselaer has adopted a local law to reduce pollutants in storm water runoff from construction activities that disturb one or more acres of land or are part of a larger plan of development. This requirement applies to redevelopment as well as to new development.

The City of Rensselaer requires construction site operators (where the disturbance is 1 Acre or greater) to prepare Stormwater Pollution Prevention Plans for controlling construction site pollution and erosion/sedimentation as well as implementing the controls specified in the Stormwater Pollution Prevention Plan. The City of Rensselaer has established local ordinances for stormwater management which require erosion and sediment control best management practices to be implemented. Additionally the City has enacted a grading Permit Policy for smaller disturbances within the City. The City **SWO** and/or the **Building Inspector** will monitor these permits and insure that proper erosion control measures will be taken by the owner or contractor in order that no site runoff reaches the City Storm System.

All Site Plans are reviewed by the City Engineer in accordance with the New York State Stormwater Design Manual and the Erosion and Sediment Control Manual. Any of the Site Plans that require a full Stormwater Pollution Plan will require having a SWPPP Acceptance Form signed by the Stormwater Management Officer.

The procedure the City of Rensselaer will use to receive and consider information from the public is encouraging public comments during the Planning Commission meetings on individual projects. The public can also contact the Stormwater Management Officer with comments or complaints related to storm water or illicit discharge or illegal dumping. A hotline number is on the City of Rensselaer's website.

Pre-construction meetings are required with the City of Rensselaer prior to start of construction. The training certification card for the contractor's designated SWPPP competent person must be provided at that time as well as the NOI Acknowledgement letter, signed Contractor certification and a pre-construction inspection is performed. Construction inspections will be performed by the storm water management officer or code officer on a monthly basis. The qualified inspector hired by the developer/contractor must submit copies of their weekly SWPPP Inspections to the Stormwater Management Officer. Any enforcement required will be handled through the Code Enforcer or the Stormwater management Officer.

The construction site will be inspected prior to the Notice of Termination by the Code Enforcement Officer. Prior to issuing a certificate of occupancies, the owner must provide an O & M Manual with as-builts. The City of Rensselaer required post-construction structures to be privately owned.

A record system has been developed to document items such as catch basin cleaning, television of the storm sewer, staff training, annual inspections of storm water structures, and public complaints.

Engineers, Building Inspectors, Code Enforcers, and other municipal personnel are required to keep their training up to date, DEC certification must be renewed every 3 years, additionally

these personnel should make every effort to attend additional available stormwater training opportunities.

Submitted SWPPPs for Projects within the City will be kept in a file located in the Engineering Department labeled "**Appendix J : Storm Water Pollution Prevention Plans/Inspection Forms**. Each project will have a separate sub-file and copies of the inspection forms whether performed by the contractor's designated competent person or the City SWO/Building Inspector will be stored in that sub-file.

## Minimum Control Measure 5: Post Construction Site Stormwater Management

The City of Rensselaer local law requires review of post-construction stormwater management measures in the Stormwater Pollution Prevention Plan. Post construction stormwater control is required with a combination of stormwater management practices consistent with technical standards in the New York State Stormwater Management Design Manual. The operator is required to establish responsibility for and ensure ongoing maintenance of structural or non-structural management measures needed to control post-construction stormwater. Inspection of the stormwater management measures and practices will be preformed annually to ensure compliance to the City of Rensselaer's local laws. Enforcement will be in accordance of the local law.

The owner must provide an O&M prior to receiving a certificate of occupancy. The O&M must include as-builts as well as a maintenance schedule. The Code Enforcer or the Department of Public Works will inspect the post construction stormwater management practices to ensure the maintenance schedule is being followed. Any owner that has a practice that is not cleaned of silt and sediment will be notified. If the owner then fails to clean the practice, enforcement of the local law will take place. O&M information/manuals will be stored by the City DPW in an easily accessible location labeled: **Appendix K – Operation and Maintenance Schedules.**

Stormwater management areas will be inventoried and inspected. Stormwater management practices not being maintained were received an unsatisfactory inspection report, and the owner will be notify to address the issues within 2 weeks.

The City has prepared a Green Infrastructure Inspection and Maintenance Manual, the City Department of Public works is responsible for maintaining these stormwater practices. These practices will be inspected annually, and a record of that inspection will be kept by the DPW and Engineering Departments. The manual also includes maintenance schedules and Best Practices to guide the Department of Public works in maintaining these assets.

**GOALS this MCM**
The City will inspect the post construction stormwater management facilities to ensure compliance of the O&M schedules

## Minimum Control Measure 6: Pollution Prevention/Good Housekeeping for Municipal Operations

The intention of this document is to provide policies and guidelines to reduce pollution from municipal activities and properties. This document is expected to be a living document and should be changed as situations and practices change. The document should be reviewed regularly, so that its contents are refreshed regularly, both in the mind of the reader, and in the binder in which it is kept. New practices, good documentation and other additional information should be added as a matter of habit, with updates performed on all copies in the municipal offices and workplaces. A master copy should be kept at the Stormwater Coordinator's Office to make sure that one complete copy exists.

## Pollution Prevention

Following these basic rules will reduce pollution and save taxpayer money. They will also lead to a more efficient operation of government.

***Prevent Pollution at its Source***

Controlling pollutants at their source and preventing their wider release is more efficient and cost-effective than removing them from stormwater runoff or other water treatment after the fact. Remove or capture contaminants before stormwater contact. Prevent erosion; and provide multiple barriers to pollutant releases at storage and waste sites.

***Manage Clean Water Runoff and Minimize Pollutant Exposure to Clean Water*** Prevent clean water runoff and precipitation from contacting potential pollutants and prevent mixing of clean water (runoff) with polluted flows. Don't let pollution spread, if possible.

***Minimize use of Potential Pollutants***

Examine municipal use of all chemicals and other potential pollutants and identify methods of eliminating, reducing or better targeting their use in municipal operations and facilities (including alternative products). Ask yourself "Do we really need to use this chemical?"

***Plan and Prepare for Spills and Accidents***

Develop spill prevention and response policies and procedures for ALL facilities that use or store chemicals (and not just petroleum.) Accidents will happen, so be prepared for them.

***Practice Preventive Maintenance***

Regularly inspect components of stormwater collection, conveyance and treatment systems; regularly inspect machinery, pipes, storage tanks and other equipment for leaks or worn parts; regularly calibrate application equipment (salts, pesticides, fertilizers); plan for system upgrades and component replacements and repairs. Spending $1,000 to replace a worn or broken part can save $10,000 in clean up costs and fines.

***Identify Potential Pollution Sources***

Identify all municipal facilities and operations that could impact stormwater quality. Identify potential pollution sources at each site or for each activity. Identify, map and inspect the facility's

stormwater drainage system.

***Plan New Facilities to Include Stormwater Pollution Prevention***
Include a stormwater pollution prevention component in all new municipal facilities and activities. New facilities should be sited to minimize waterbody impacts. Use Best Management Practices when preparing facility plans or major upgrades.

***Improve Data Collection, Mapping, and Records Maintenance***
Emphasize improvement of data collection and records maintenance to address higher priority pollution sources and contaminants; improvement of geographic information; and unification of data management across all relevant municipal departments and operations.

***Train and Reward Employees***
Train employees regarding stormwater pollution and prevention practices. Identify emergency contacts and reporting procedures. Seek employee ideas on pollution prevention methods and priorities and reward employees who participate in the prevention program. Remember, your employees are your first line of defense on pollution prevention.

***Improve Communications and Coordination***
Emphasize communication and coordination across key municipal departments and operations. Coordinate stormwater and pollution prevention activities with county and state agencies, organizations and institutions, as well as neighboring municipalities. Develop public outreach and citizen participation regarding municipal pollution prevention activities. The Rensselaer County Supervisors Association and Rensselaer County Highway Superintendent Association are great examples on how communications helps communities to learn from each other, share, and save money.

## Municipal Operations

The municipal operations below should follow the Standard Operating Procedures contained in **Appendix I - Standard Operating Procedures-City SWMP** to minimize pollution from sediment disturbed, chemicals used, or materials stored:

- Street and Bridge Maintenance
- Winter Road Maintenance
- Sidewalks and municipally Owned or Leased Parking Lots
- Vehicle and Fleet Maintenance
- Fuel and Bulk Liquid Handling
- Parks and Open Space Maintenance
- Municipal Buildings Maintenance
- Solid Waste Management
- City Sewer Lines Maintenance, Repair, Replacement
- CSO Outfall Monitoring
- City Water Line Maintenance
- MS4 Outfall Monitoring
- Post-Construction Treatment Practices
- Streambank Stabilization

## Municipal Properties

The following facilities are owned, leased, or managed by the City of Rensselaer and are within the MS4 Area:

Parks / Playgrounds

- Riverfront
- Plum Street
- Tracy Street
- Coyne Field
- Lakeview
- 8th Street
- 1[51] Street
- Walter S. Pratt Boat Launch
- Valley View
- City Hall Park
- 2nd Street Median

Municipal Buildings

- DPWGarage
- City Hall
- North End Firehouse
- Minks Firehouse
- Police Station
- Library
- Alarm Station
- Pump Stations -Grandview, 10th Street
- Salt Shed

Roadways in MS4 Area

- All City Streets

Roadways Outside MS4 Area

- Van Alstyne Drive

Stormwater Practices

- Quackenderry Dam
- School Road Wet Pond
- School Road Dry Pond / Infiltration Basin
- City Hall, Infiltration & Raingarden
- North Firehouse Bio-retention
- Washington Ave. Infiltration/Biofiltration
- East Street Bio-Retention & Infiltration

Parking Lots

- City Hall (south)/City Hall (west)/City Hall (east)
- Police Station lot
- Broadway Firehouse lot
- North End Firehouse lot
- Boat launch lot
- Riverfront Park lot

Materials Storage Yards

- Sixth street sweeping yard area

- South Street Salt Shed
- Forbes Avenue roadway materials stockpiles
- South St./Second Ave. Materials Storage

## Goals This MCM:

1) DPW to maintain adequate inventory of spill response materials.
2) The City of Rensselaer will follow procedures to promote pollution prevention and good housekeeping practices
3) Maintain scheduled street sweeping operations.
4) To reduce silt and sediment on the roadways, trucks are covered at all times with a tarp when hauling soil materials. Any excess soil materials are stored at a City Facility and seeded.
5) The Department of Public Works (DPW) will perform all vehicle repairs inside their garage which is equipped with an oil separator and a sand trap. All vehicles are to be washed inside the wash bay equipped with an oil separator. The City of Rensselaer will practice normal oil handling policies for disposing of used oil. Vehicles are scheduled as needed by miles or by number of engine hours for maintenance to prevent vehicles from leaking fluids due to poor maintenance
6) All salt and sand is to be stored inside at the City Salt facility which has an impermeable floor. Sanders are loaded inside the salt facility and the area surrounding the facility is swept clean as necessary. The City of Rensselaer will continue to use Magic Ice-8-Gon, salt agent, to reduce the amount of salt and sand applied to the roadways. The amount of salt and sand mix used is dependant upon the storm and expected weather conditions. The City of Rensselaer will continue the practice of turning off the sander while at stop lights and not let sand/salt to pile up.
7) The City of Rensselaer will continue the practice of limiting the use of lawn care products by applying once a year by qualified DPW personnel or a qualified landscape contractor. Fertilizer/pesticide storage, management and usage are by personnel licensed and trained to handle these potential pollutants. This is typical for the City of Rensselaer in that potential pollutants are handled by legally capable personnel and City wide emphasis for environmental compliance. Fertilizing all the sports fields are contracted out to a qualified contractor
8) Solid waste management program includes collection truck door gaskets to be tight and sealed; drain plug must be in place on collection truck and clean up all loose debris during collection

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## VIII. OUTFALL AND SMALL MS4 MAPS

The City of Rensselaer's outfalls have been mapped and are included in **Appendix G.** Also included is the watershed map of Albany County MS4s, the Storm Sewer System General Plan and the General Plan Maintenance Program. This includes all the catch basins and storm sewer sizing. The General Plan Maintenance Program shows which sections of the storm sewer has been cleaned and when as well as sections that have been repaired and when.

## IX. STORMWATER MANAGEMENT PRACTICE SELECTION AND MEASURABLE GOALS

The City of Rensselaer does not have a stormwater management practice selection requirement. The City allows the Design Engineer to select the stormwater management practice as long as it meets the New York State Stormwater Design Manual.

## X. OPERATION AND MAINTENANCE SCHEDULES

The operator must submit an Operation and Maintenance Schedule and Manual prior to receiving a certificate of occupancy. The Operation and Maintenance Manuals are retained at the Engineer's Office (Laberge Group) and at the City Hall. Operation and Maintenance Manuals must contain as builts of the tormwater management area and control structure. The City of Rensselaer has a summary of the Operation Maintenance Schedule

## XI. DOCUMENTATION OF PUBLIC OUTREACH EFFORTS AND PUBLIC COMMENTS

The City of Rensselaer publishes the public meeting announcement in the local newspaper two (2) weeks prior to the public meeting on the annual MS4 Stormwater Management Report. The MS4 Stormwater Management Report is also available on the City website. The public is encouraged to attend the annual public meeting to comment on the annual report.

## XII. SUBMITTED CONSTRUCTION SITE SWPPPS

The construction site SWPPPS that are submitted for review are retained at the City Engineer's Office (Laberge Group) and at the City Hall by specific project.

## XIII. REVIEW LETTERS

Review letters are retained at the City Engineers Office (Laberge Group) and at the City Hall.

## XIV. CONSTRUCTION SITE INSPECTION REPORTS

The City of Rensselaer has a binder for each project site in which construction site inspection reports are kept.· The City Engineer (Laberge Group) also has the weekly inspection reports on their computer system. Include in **Appendix L** are blank Pre-Construction Reports, and Weekly Construction Reports.

## XV. NOTICE OF INTENT

The Notice of Intent for Coverage under an SPDES General Permit for Storm Water Discharges From Small Municipal Separate Storm Sewer Systems is location in **Appendix M.**

## XVI. ANNUAL REPORTS

The Annual Reports are located in **Appendix N.**

## XVII. SPDES PERMIT

The Municipal Separate Storm Sewer Systems (MS4s) permit is located in the SPDES Binder and the Construction Activity Permit is located in SPDES Binder located at the City Hall.