# INTRODUCTION

According to the Environmental Protection Agency (EPA) a Municipal Separate Storm Sewer (MS4) is a conveyance or system of conveyances that is:

* + Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.;
  + Designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.);
  + Not a combined sewer; and
  + Not part of a Publicly Owned Treatment Works (sewage treatment plant)

MS4 are collection systems designed to move stormwater, including rainwater and snow melt, through a conveyance system (drains, pipes, ditches, and open channels) to waterways. As stormwater collects in MS4, contamination is a possibility. For example, if stormwater were to flow through agricultural lands before discharging to an MS4, it may pick up pesticides, fertilizers, and/or sediments. Other sources of stormwater contamination include oil and grease from roadways, discarded trash, and household hazardous waste, like solvents and motor oil. Since stormwater is not treated, any pollutants carried in stormwater will end up into the conveyance system and ultimately in waterways, potentially threatening public health (contaminated food, drinking water, and recreational waterways), harming freshwater ecosystems, and degrading the aesthetic value of waterways.

Municipalities in urbanized areas (UAs) must obtain NPDES permit coverage and develop a stormwater management program to discharge stormwater from their MS4. After permit coverage approval and as a part of the stormwater management program, municipalities are required to develop and maintain an active MS4 Program that addresses requirements of the Pennsylvania Department of Environmental Protection (PA DEP), as well as the EPA. These requirements include elements that address the six Minimum Control Measures (MCMs) established by the EPA:

1. Public Education and Outreach on Stormwater Impacts
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities
6. Pollution Prevention/Good Housekeeping for Municipal Operations

The City of Scranton is committed to continuing in the development, implementation, and enforcement of a MS4 Program that is designed to reduce the discharge of pollutants from the regulated MS4, protect water quality, and closely follow the requirements of PA DEP and the EPA.

# BACKGROUND

Scranton is a city in the Commonwealth of Pennsylvania, United States, and the county seat of Lackawanna County. With a population of 76,328 as of the 2020 U.S. census,[4] Scranton is the largest city in Northeastern Pennsylvania and the Scranton–Wilkes-Barre–Hazleton Metropolitan Statistical Area, which has a population of 562,037 as of 2020. It is the seventh largest city or borough in Pennsylvania.[5] The contiguous network of five cities and more than 40 boroughs all built in a straight line in Northeastern Pennsylvania's urban area act culturally and logistically as one continuous city, so while the city of Scranton itself is a mid-sized city, the larger Scranton/Wilkes-Barre Metropolitan Area contains nearly half a million residents in roughly 200 square miles. Scranton is the cultural and economic center of a region called Northeastern Pennsylvania, which is home to over 1.3 million resident City of Scranton, located in northeastern Pennsylvania, is a community within the Lackawanna River watershed.,

The city itself is composed of approximately 26 square miles, which includes about 160 square acres of surface water. For the sake of the MS4 Program, only the US Census Bureau-designated urbanized areas are considered within the MS4 Program jurisdiction. The designated urbanized

areas in City of Scranton have an approximate area of 19.square miles.

According to the U.S. Census Bureau, the 2010 population of City of Scranton was 76077 people.

The population itself can be divided into five (5) key target audience groups, which are referred to as Water Quality Stakeholders throughout the plan. The audience groups are referred to as stakeholder groups, rather than as target audience groups, because they play an important role in the management of stormwater and literally have a “stake” in its overall quality and management. The stakeholder groups can be divided into five major categories, which are:

1. City of Scranton Residents and Neighborhood Associations
2. City of Scranton Municipal Staff and Facilities
3. Business Owners
4. Environmental Stakeholders
5. Developers in City of Scranton

It is the goal of the City to involve the stakeholders heavily in the management of the MS4 by tailoring specific goals for each stakeholder group. Every property owner, resident, business operator, and municipal employee have responsibility for stormwater. By involving every citizen in the City, it will be possible to bring about significant change to the local water quality and will result in future prevention of stormwater pollution.

The MS4 in the City collects runoff, conveys the water through a system of pipes and swales, and then discharges it to local surface waters, which include the Lackawanna River, Roaring Brook, Keyser Creek, Leggetts Creek and some unnamed tributaries, all of which require management under the City’s NPDES permit. As part of the Authorization to Discharge waters from the MS4 to surface waters, there are specific requirements that include public education and involvement in water quality improvement issues. Specifically, the MS4 General Permit outlines the required Stormwater Management Program as having a series of MCMs. Each of these contains multiple Best Management Practices (BMPs) and Measurable Goals must be met. The requirements for MCM #1 and #2 are included in the Federal Regulations and the BMPs, which are defined PA DEP are as follows:

MCM #1: Public Education and Outreach (PEOP) on Stormwater Impacts

As stated in the Federal Regulations, the following are the requirements of MCM #1:

*Implement a public education program to distribute educational materials to the community or conduct outreach activities about the impacts of stormwater discharges on water bodies*

*and the steps that the public can take to reduce pollutants in stormwater runoff (40 CFR Part 122.34(b)(1)(i)).*

Per MCM #1, City of Scranton must comply with four (4) Best Management Practices, or BMPs, in order to obtain compliance. The following presents the requirements of the BMPs:

* BMP #1: Develop, implement, and maintain a written Public Education and Outreach Plan (PEOP)
* BMP #2: Develop and maintain lists of target audience groups that are present within the areas served by your regulated small MS4s. In most communities, the target audiences shall include residents, businesses (including commercial, industrial, and retailers), developers, schools, and municipal employees.
* BMP #3: You must annually publish at least one issue of a newsletter, a pamphlet, a flyer, or a website that includes general stormwater educational information, a general description of your Stormwater Management Program, and/or information about your stormwater management activities. The list of publications and the content of the publications must be reviewed and updated at least once during each year of permit coverage. Publications should include a list of references (or links) to refer the reader to additional information (e.g., PA DEP and US EPA stormwater websites, and any other sources that will be helpful to readers). You must implement at least one of the following alternatives:
  + Publish and distribute in printed form a newsletter, a pamphlet or a flyer containing information consistent with this BMP
  + Publish educational and informational items including links to DEP’s and EPA’s stormwater websites on your municipal website
* BMP #4: Distribute stormwater educational materials and/or information to the target audiences using a variety of distribution methods, including but not limited to: displays, posters, signs, pamphlets, booklets, brochures, radio, local cable TV, newspaper articles, other advertisements (e.g., at bus and train stops/stations), bill stuffers, posters, presentations, conferences, meetings, fact sheets, giveaways, and storm drain stenciling.

MCM #2: Public Involvement/Participation Program (PIPP)

As stated in the Federal Regulations, the following are the requirements of MCM #2:

*Comply with applicable state and local public notice requirements when implementing a public involvement/participation program (40 CFR Part 122.34(b)(2)(i)).*

Per MCM #2, City of Scranton must comply with three (3) Best Management Practices, or BMPs, in order to obtain compliance. The following presents the requirements of the BMPs:

* BMP #1: Develop, implement, and maintain a written Public Involvement and Participation Program (PIPP) which describes various types of possible participation activities and describes methods of encouraging the public’s involvement and of soliciting the public’s input.
* BMP #2: Prior to adoption of any ordinance required by this General Permit, provide adequate public notice and opportunities for public review, input, and feedback.
* BMP #3: Regularly solicit public involvement and participation from the target audience groups. This should include an effort to solicit public reporting of suspected illicit discharges. Assist the public in their efforts to help implement your SWMP. Conduct public meetings to discuss the on-going implementation of your SWMP.

This part of the MS4 Program considers both the “Public Education and Outreach on Stormwater Impacts” and “Public Involvement/Participation” MCMs together as one plan because of their similarities. The principles behind these two are interrelated since they primarily attempt to establish a community that is educated, aware, and able to assist in stormwater management. The City’s philosophy is to use outreach, education, and involvement opportunities together to bring increased awareness of water quality issues and the importance of preventing future stormwater pollution. The hope is that through this plan and continued work with the Water Quality Stakeholders, the City will undergo a behavioral change. The long term goal is that stakeholder groups will take an interest in stormwater management and will increase their direct participation in events targeted at stormwater cleanup and pollution prevention.

The remaining part of this plan serves as a strategic guide for the City to play a more effective role in the education and involvement of the community in regards to stormwater management. It details the different water quality stakeholders and how individual approaches need to be taken towards each group. The PEOP and PIPP also lay out initiatives that will be pursued by City to aid in meeting the requirements of the MS4 Program. There are likely additions and modifications that will occur in the upcoming years in order to improve upon the overall MS4 Program. Updates may occur yearly and will be published within the Annual MS4 Status Report. All records of activities, education and involvement, and other documentation pertaining to the PEOP and PIPP will be kept for at least five (5) years from the date of the activity or action.

# PEOP PURPOSE AND GOALS

The purpose of outreach is to educate the public about the impact their behaviors can have on stormwater pollution and the significance of mitigating stormwater pollution. By encouraging the community to avoid stormwater pollution through education and outreach, it will be possible to enact changes in behavior that will prevent future stormwater pollution. Specific goals of the City’s program are:

* + Increase Water Quality Stakeholder knowledge about the steps that can be taken to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns.
  + Increase Water Quality Stakeholder knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications.
  + Provide the community with resources that could be easily accessible to all water quality stakeholders through the City website and physical copies of educational materials at City-owned buildings.
  + Educate the community to develop beneficial stormwater practices in order to avoid future stormwater pollution.
  + Create a better understanding of the links between land use, runoff management, water quality, and flood control.
  + Promote awareness of the storm sewer system as an essential component of the municipal infrastructure, and how household/business pollutants must be eliminated from the system.
  + Develop an implementation schedule to track and maintain records for MS4 activities.
  + Satisfy the requirements of the MS4 General Permit.

# TARGET AUDIENCES – WATER QUALITY STAKEHOLDERS

In order to effectively involve the Water Quality Stakeholders in the MS4 Program, it is necessary to tailor specific for each stakeholder group. While some aspects of the PEOP can be used to reach all the stakeholders at once, such as the distribution of the MS4 Informational Brochure, other aspects need to be more focused in their application. For example, it is necessary to provide residents and homeowners with knowledge of the storm system in their immediate vicinity and how they can be involved in stormwater management practices, including appropriate disposal/recycling of oil, cleaning products, and correct car washing practices.

Identification of the water quality stakeholder groups is the first step towards establishing an effective PEOP and PIPP program. More specifically, by targeting select groups with specific education and outreach efforts, it is possible to tailor stormwater education to the role the group has within the community. For example, education and outreach efforts with the Hanover Area School District would focus on hands-on activity and knowledge that the students could use once they become homeowners themselves.

Below are descriptions of each of the water quality stakeholders within the community and general methods in which way they could be best easily reached for education, outreach, and involvement in stormwater management.

* + City of Scranton Residents and Neighborhood Associations: The residents and those people living in neighborhoods and housing developments, including multi-family homes and apartments, comprise the largest portion of the population in the City. With that said, the residents have the greatest effect on the MS4, both in terms of generation and prevention of stormwater pollution. This is because of home-ownership and maintenance activities that are required of being a homeowner, such as lawn maintenance and car washing. A successful PEOP and PIPP as well as MS4 Program is possibly only through having this stakeholder group on-board and heavily involved. This category includes the households and neighborhoods within the City. A majority of the residents live in single-family homes and residential developments spread throughout the City. There are also multi-family homes, including apartments. As the city was developed over a 100 years ago it is serviced mostly by a combined sanitary/storm sewer network owned and maintained by Pennsylvania American Water Company, areas outside of the combined sewer areas are serviced by the MS4 system, including subsurface pipes, curbed streets, roadside swales and inlets.
  + City of Scranton Staff and Municipal Employees: The City Staff and Employees are a small percentage of the community (compared to the residents and business district), but have a very important role in stormwater management. The Staff and Employees are responsible for carrying out the MS4 Program and will be called upon to follow the Program closely to act as a good example for the rest of the community. The City owns and maintains several sites throughout the municipality, including the City public works garage, firehouses, parks, and buildings. Please refer to the Pollution Prevention and Good Housekeeping Program (PPGHP) for additional information. At each of these locations, there are opportunities to utilize proper operational practices to reduce impacts on runoff and waterways. The City will utilize its PPGHP for stormwater management practices with the staff and employees.
  + Business Owners and Operators. In a recent inventory of the businesses within the City, it was determined that the City is home to approximately 3900 large and small businesses. This inventory can be seen in Appendix B, Including businesses within the MS4 Program is essential for management and prevention of stormwater pollution.
  + Environmental Stakeholders such as the Lackawanna River Conservation Association and Trout Unlimited
  + Developers in City of Scranton : Developers in the City are a small percentage of the community, but also need to be involved in the PEOP and PIPP programs. The developers need to be aware of stormwater management practices and cannot add pollution to the stormwater system through development By successfully identifying the stakeholder groups, distributing materials, holding education sessions, and involving the groups in local stormwater activities, the City will be able to educate the community about the importance of stormwater control and the resulting benefits of maintaining water quality. As the PEOP and PIPP develops, it may be necessary to alter the audience by narrowing down the stakeholder groups even further.

# CURRENT AND PAST COMMUNITY PEOP EFFORTS

As noted previously in this plan, the City must meet the requirements set forth by the EPA and PA DEP. In an effort to comply with MCM #1, past and current efforts used for stormwater education within the community have been identified below. Existing efforts used by the City include the following. Refer to the “Appendices” for all records documenting existing PEOP efforts.

* + The City uses its website as one method to disseminate MS4 information. The City keeps the website updated with new links, education materials, records of previously submitted MS4 materials, and updates of new reports that have been included in the Program. The City updates this at least once per year after submittal of the Annual MS4 Status Report. The “MS4 Information” tab is the central hub of the City for distribution of MS4 materials, including but not limited to the individual MS4 Program plans (such as the PEOP, PIPP, IDD&E, etc.), educational flyers (such as City-developed and PA DEP flyers), and any important links related to the State MS4 Program. The City website can be found at the following: [www.scrantonpa.gov.](http://www.scrantonpa.gov.)
  + The City publishes its Meeting Minutes on its website following the monthly meetings. The Meeting Minutes always include any relevant information pertaining to the MS4 Program that was discussed, including issues with stormwater throughout the Municipality and additional measures that could be included as a part of the MS4 Program.

# PLANNED COMMUNITY PEOP EFFORTS

In an effort to comply with MCM #1, the City will need to develop and implement new community outreach efforts to provide the Water Quality Stakeholders with additional stormwater education. Current plans for the community include.

* + Develop and distribute additional stormwater educational materials to the majority of the City community and the stakeholder groups, including the municipal and City employees, the business district, the developers, and the residents/neighborhoods. Additional educational measures planned include a stormwater mailer and flyers to be distributed within the community.
  + Continual expansion and updates to MS4 information on the City website. The City will continue to modify and add to its current website in the coming years. The City will keep updated versions of the individual MS4 Program plans (PEOP, PIPP, IDD&E, etc.), post newly developed education materials (such as brochures and presentations), and keep updated EPA and DEP links to MS4 info, among other things.
  + Displays and posters will be kept in the Municipal Building as well as other City-owned buildings. These will be targeted at the entire community, but specifically at the business district, developers, municipal employees, and residents. Displays and poster will be displayed in the building lobby.
  + Installation of storm drain placards and/or use of storm drain stenciling along catch basins across the City. The placards will contain the description “No Dumping. Only Rain in the Drain” or something similar. The placards are used to as reminder to the stakeholder groups to keep pollutants out of the storm drains. It is an education measure that teaches good habits but also acts as a visual reminder to anyone passing the inlets.
  + Provide stormwater management requirements to developers and property owners as a part of the construction permitting process.

# ADDITIONAL PLANNED COMMUNITY PEOP EFFORTS

In addition to the efforts laid out in the previous section, the following efforts could be utilized for specific stakeholder groups. The previous section was more general and is to be applied to all the stakeholder groups. The following proposed activities will be focused towards specific groups:

* + City Residents and Neighborhoods: the focus with residents is primarily behavioral change and the active involvement in education. It will be difficult to keep residents active at all times, but behavioral change through education will create repeatable habits.
    - Lawn fertilization: the City will include information in the MS4 Informational Brochure about lawn fertilization. This information will include best practices for the frequency fertilizers should be applied, the amount, and the proper technique in doing so in order to reduce pollution from residential areas.
    - Neighborhood and MS4 cleanup projects, which will serve as not only an educational tool for helping residents learn how to properly manage inlets and other storm sewer structures, but will also fulfill requirements for the PIPP.
  + City and Municipal Staff: the focus of education and outreach with City and Municipal staff will be on good housekeeping procedures, which will be included the PPGHP. A few of the practices that will be taught from training include how to maintain good housekeeping principles at the City facilities, parks, and buildings.
  + Business District and Developers: specific education and outreach efforts towards the business district and developers are to include providing educational posters at local businesses, including at garages, banks, and grocery stores within the City. All educational materials will be hung on bulletin boards there.

# EVALUATION OF PEOP

It is the goal of the City not only to provide educational and outreach opportunities to the community, but also to ensure that the City is providing an effective and beneficial program. Though the overall effects of the program will be difficult to monitor at first, the City will need to continue to examine the effectiveness and success of the PEOP. A few metrics to be implemented:

* + Record the number of website hits on just the MS4 page on the City website.
  + Record the number of participants at municipal meeting presentation given on stormwater through a sign-in sheet.

# ADDITIONAL OPPORTUNITIES FOR EDUCATION AND OUTREACH

Throughout the development and implementation of the PEOP, other opportunities for public education and outreach will be developed. It is the goal of the City to continually develop and improve the PEOP program to better inform and educate the community members about stormwater issues, as well as to maintain compliance with PA DEP and EPA MS4 requirements. Ultimately, the City will revise and adapt the PEOP in reporting periods to come to address weaknesses and reflect the overall progress of the Program.

# PIPP PURPOSE AND GOALS

The following presents the Public Involvement and Participation Program (PIPP) for City of Scranton . The primary goal of the PIPP is to solicit public input and to involve the public in the decision-making process. The PIPP is similar to the PEOP and looks to achieve similar outcomes: a community that is educated, aware, and able to assist in stormwater management to help prevent stormwater pollution.

The purpose of public involvement and participation is to engage the public in the development, implementation, and evaluation of the stormwater program. Whether it is through attendance at municipal meetings or involvement in cleanout of stormwater drains, the PIPP looks to involve the public in of stormwater management within the local community. By encouraging the community to become involved through the PIPP, it will also assist with stormwater education. Therefore, the development of the PIPP establishes practices in the community that will help to prevent future stormwater pollution and expand upon education the public has received through the PEOP.

The main principals of the PIPP can be categorized under the following:

* + Public Awareness: to make the public aware of the comprehensive planning process
  + Public Education: to provide the public with balanced and objective information to assist them in understanding the problem, alternatives, and/or solutions.
  + Public Input: to obtain feedback on issues, alternatives, and/or decisions
  + Public Interaction: to work directly with the public throughout the process to ensure that public issues and concerns are consistently understood and considered
  + Public Partnership: to place decision-making responsibilities in the hands of the public.

Using these principals as a guideline, the City has developed goals that could be achieved through their PIPP. A few of the goals that City of Scranton ’s PIPP looks to achieve include:

* + Establishment of opportunities for the public to participate in the decision-making processes associated with the development, implementation, and update of stormwater programs.
  + Solicit public notice and opportunities for public review, input, and feedback prior to adoption of any ordinance that involves stormwater management.
  + Regularly solicit public reporting of suspected illicit discharges.
  + Encourage public participation in community activities such as waterway cleanup or restoration.
  + Participate in and support local watershed groups’ meetings and awareness events.
  + Assist the public in efforts to implement the Stormwater Management Plan and MS4 Program.
  + Conduct public meetings to discuss the on-going implementation of the Stormwater Management Plan.
  + Make periodic stormwater reports available to the public on the website and available in physical copy at the municipal building.

# CURRENT AND PAST COMMUNITY PIPP EFFORTS

As noted previously in this plan, the City must meet the requirements set forth by the EPA and PA DEP. In an effort to comply with MCM #2, past and current efforts used for public involvement and participation within the community have been identified below. Refer to the “Appendices” for all records documenting existing PIPP efforts.

* + Adequate public notice and opportunities for review/comments are given to the public before the adoption of any new stormwater ordinance. Review of the new changes occur at municipal meetings and the public is given the chance to submit comments/concerns and voice their opinions about proposed changes. Any changes that occur are published in the Meeting Minutes.
  + The City maintains a recycling program and encourages the community members to participate. Recycling at the City includes recycling of plastic, newspaper, and cardboard among other products.

# PLANNED COMMUNITY PIPP EFFORTS

In an effort to comply with MCM #2, the City has developed and implemented new public participation activities as well as to encourage the public’s involvement and participation in the other stormwater-related activities. Planned efforts to fulfill the requirements of MCM #2 include:

* + The City will publicly establish the use of a 311 hotline giving stakeholder groups the ability to report any issues associated with local stormwater. The stakeholder groups will be able to contact the Municipality anytime a stormwater issue is seen. The City keeps track of issues through a log kept for the stormwater hotline. The City presently keeps track of issues, but will make aware to the community that stormwater issues and anything related to the MS4 Program could also be reported to the “hotline.”
  + The City will solicit public opinions and ideas for proposed stormwater community activities that could be used in fulfillment of MCM #2.
  + The City, with the help stakeholder and City Engineer, will review the PIPP annually and revise it as necessary.
  + The City will make available all the stormwater-related materials (such as ordinances and MS4 materials) and MS4 Annual Status Reports on the website. The City will also maintain physical copies of these documents at the municipal building if community members wish to have them in physical form.

the public notice well in advance of upcoming events. The event information will also be posted on the City website.

* + City of Scranton will solicit the assistance of nearby groups and organizations, such as local Boy Scout troops and colleges and universities for both participation and involvement in local stormwater activities.

# ADDITIONAL INFORMATION ON PLANNED COMMUNITY PIPP EFFORTS

The following presents additional information about public involvement/participation efforts as it relates to the PEOP:

* + Inlet Stenciling: stenciling the MS4 system within various neighborhoods and housing developments with the help of the stakeholder groups, especially among the residents and business district groups, will create more awareness within the community. This activity is particularly important because it is a hands-on project, but also leaves a sign that will constantly be visible within the community.
  + Student Projects and Boy Scout Involvement: the City will look to involve those willing students in MS4-related projects that could include education and/or field trips.

# EVALUATION OF PIPP PROGRAM

It is the goal of City of Scranton not only to provide public involvement and participation opportunities to the community, but also to ensure that the City is providing an effective and beneficial program. Unlike the PEOP, metrics to monitor the effectiveness of the PIPP are more numerous and give a better idea of how the program is performing. A few metrics that the City will easily implement include:

* + Tracking the number of community members who attend monthly municipal meetings.
  + Recording the number of MS4 Program plan comments received from the community.
  + Recording detailed notes of comments made by community members regarding MS4-related activities.
  + Recording the number of community members who attend MS4-related activities, such as storm drain stenciling, Adopt-A-Highway events, etc.
  + Recording the number of website hits on the website, specifically on community members viewing the annual reports, stormwater ordinances, or the MS4 program.
  + Number of community members visiting the municipal building to view and/or receive a copy of either annual reports, stormwater ordinances, or the MS4 program.

# ADDITIONAL OPPORTUNITIES FOR PUBLIC INVOLVEMENT/PARTICIPATION

Throughout the development and implementation of the PIPP, other opportunities for public involvement and participation will be developed. It is the goal of the City to continually develop and improve the PIPP to involve the community, especially the water quality stakeholders as much as possible in stormwater management in the City. It is also the goal of the City to meet PA DEP and EPA MS4 requirements. Ultimately, the City will revise and adapt the PIPP in reporting periods to come to address weaknesses and reflect the overall progress of the program.