

## PUBLIC INFORMATION AND EDUCATION PLAN

### I. PURPOSE

The purpose of developing and implementing the Public Information and Education (PIE) Plan is to improve the quality of and reduce the quantity of urban runoff, resulting in the receiving waters meeting their designated uses.

### II. GOALS AND OBJECTIVES

The primary goal of the Manchester PIE Plan is to increase awareness of stormwater pollution impacts and to encourage changes in public behavior. The goals of the PIE Plan are derived from the requirements of the Small MS4 General Permit, focusing on impacts of stormwater discharges to water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. Specific goals of the PIE Plan are as follows:

- Improve the quality of stormwater runoff from existing urban areas
- Improve the quality of stormwater runoff from all new development and redevelopment projects
- Identify and eliminate all unpermitted and/or illicit discharges to the stormwater system
- Create an atmosphere of public awareness concerning the negative impacts of polluted and/or excessive volumes of stormwater runoff

The objectives are the heart of the PIE Plan. They are based on the goals and target audience needs, and result in an orchestrated set of educational activities that are focused and effective. Well written and designed objectives will result in measurable outcomes upon which the program's evaluation will be based.

### III. REGULATORY REQUIREMENTS

The Small MS4 General Permit contains minimum requirements for the Public Education and Outreach program in Section 4.2.1 of the permit. The permit requires that the program target specific pollutants and sources that may cause or contribute to impairment. In areas known as hotspots, the MS4 must focus education and outreach on those particular pollutants of concern. This section of the permit requires that this PIE Plan be developed by the end of the first year of permit coverage. The plan is to detail specific goals and specific activities that will occur over the remainder of the permit cycle. The plan must incorporate components from outreach campaigns and one on one communications and shall incorporate a mode to evaluate the plan's effectiveness so adjustments can be made if necessary. The plan must also include targeted educational campaigns addressing the following issues:

- General public awareness on the impacts of water quality from general housekeeping maintenance and activities.
- Home owner associations and other operators of permanent BMPs awareness of the importance of maintenance activities.

- Local engineering and development community awareness of the stormwater ordinances, regulations, and guidance materials related to long-term water quality impacts.
- General public and professional chemical applicators awareness on the proper storage, use, and disposal of pesticides, herbicides, and fertilizers.
- General public and professional chemical applicators awareness on the proper storage, use, and disposal of oil and other automotive-related fluids.
- General public and municipal employees on the awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- Local engineering, development, and construction community awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts; and
- Municipal employee/contractor awareness of water quality impacts from daily operations

The permit requires MS4s to track and maintain records of all public education and outreach activities.

#### IV. TARGET AUDIENCES

Stormwater information and education programs must be broad based and intensive enough to reach all parts of the city population. They require a long-term investment in developing the knowledge, skills, attitudes and behaviors needed for widespread adoption of new stormwater management practices. Everyone's participation is needed because the different sources of stormwater pollutants are so common and widespread. Examples of the target audiences that must be reached by the educational efforts of the city are as follows:

##### A. GENERAL PUBLIC

The general public consists of all people living and working within the permit area. The following objectives are considered to be crucial for the general public to understand for the overall success of the stormwater management program.

- The general public will understand the impacts of stormwater and why it is important to decrease stormwater runoff, improve water quality, and the detrimental effects of impervious area on runoff. They will understand the impacts on water quality from general housekeeping maintenance/activities.
- The general public will know where to get information on Best Management Practices (BMPs) and will understand how to use appropriate BMPs at their home or business.
- The general public will understand where storm drains discharge and will not dump pollutants into them.
- The general public will understand what materials can be considered pollutants and will not place them where they have the potential to enter the stormwater drainage system.

- The general public will see BMPs as necessary, functional, and marketable.
- The general public will know whom to call when someone is violating performance standards or the Manchester Stormwater Management Ordinance, including illicit connections/discharges, sanitary sewer seepage, spills, etc.
- The general public and professional chemical applicators will be aware of the proper storage, use, and disposal of pesticides, herbicides, and fertilizer use.
- The general public and professional chemical applicators will be aware of the proper storage, use, and disposal of oil and other automotive-related fluids.

## B. HOMEOWNERS, LANDLORDS, AND SMALL BUSINESS OWNERS

Property owners and managers need specific knowledge and skills in order to implement practices that improve the quality and reduce the quantity of stormwater runoff. Small business owners are considered those that are responsible for the management of their own parking lot and landscaping. The following objectives apply to homeowners, landlords, and small business owners:

- During retrofitting and redevelopment, homeowners, landlords, and small business owners will install practices to decrease volume and peak flows and improve water quality.
- Homeowners, landlords, and small business owners will choose contractors who have a proven track record of meeting or exceeding stormwater management standards. There will be increased demand for quality developments that meet performance standards including reducing imperviousness and increasing infiltration.
- Homeowner associations and other operators of permanent BMPs will have an awareness of the importance of the maintenance activities.

## C. CONSULTANTS, DEVELOPERS, HOME BUILDERS AND CONTRACTORS

Those individuals who plan and implement land developments and who are involved in new construction and redevelopments shall meet the following objectives:

- Homeowners and their contractors will understand the importance of using effective BMPs and will properly install and maintain said BMPs.
- Consultants and developers will know stormwater rules and the regulatory process.
- Consultants will prepare designs that meet or exceed performance standards.
- Consultants will provide accurate information to developers and municipalities on practices to meet standards including innovative practices and new science/engineering techniques.
- Consultants and developers will design construction sites to minimize erosion and stormwater runoff. Contractors and builders will install and maintain these erosion control and stormwater management BMPs.
- Developers will market developments based in part on stormwater compliance

and benefits of the stormwater management practices.

- Homebuilders will follow plans and not interfere with site stormwater and erosion controls and will follow construction sequencing plans to protect stormwater quality and prevent regulatory concerns.

#### D. MUNICIPALITIES AND MUNICIPAL STAFF

The following objectives refer to professional, career staff employed by the City of Manchester. This includes those employed in public works, water and sewer, planning, zoning, parks, and other departments with land use and land management responsibilities.

- Municipal staff and consultants will be able to evaluate BMPs for effectiveness.
- Municipality will hire engineering firms that understand and use proper stormwater retrofitting.
- Municipality will communicate standards to landowners, developers, contractors, and consultants.
- Municipality will review plans and enforce standards in plans.
- Municipality will take action to encourage green development.

#### E. ELECTED / APPOINTED OFFICIALS

Elected / appointed political officials, especially those serving on land use, and zoning committees, have unique educational needs that will allow them to make policy and legal decisions regarding the stormwater program. Objectives for elected and appointed officials within the city are as follows:

- Officials will understand the stormwater program requirements and objectives well enough to make informed decisions regarding policy.
- Officials will have an understanding of the different stormwater management BMPs and how their implementation will impact both the development community and the municipal staff.

#### V. SPECIFIC ACTIONS

Reaching out to the target audiences described in the preceding section will require coordinated, long-term efforts involving multiple city departments. This section lists specific educational activities that will be carried out by the city to reach each of the designated target audiences.

##### A. GENERAL PUBLIC

Education of the general public is a crucial part of managing a successful stormwater educational program. The city shall strive to find every opportunity to provide educational materials to the general public that educate the public both on general water quality issues and on specific water quality issues, such as illicit discharges and pesticide or fertilizer use. At a minimum, the city will perform the following tasks to educate the

general public:

1. Website

The City will redesign its website to include more information and to be more user friendly. The new website will include educational materials such as public service announcements that can be viewed by the general public. The website will also include a copy of all stormwater forms and documents that might be needed by the general public to conduct business with the City of Manchester.

Measurable Goals

Year 1 – Have all current forms and documents available on the web site and easy to find.

Year 2 – Have public participation opportunities publicized on the web site

Years 3-5 – Maintain and keep up to date

2. Stream Clean-Up

The City of Manchester will host public stream clean-up events. It is envisioned that initial events will focus on smaller sections of major streams such as Little Duck River, but as the events grow the focus will expand to larger stream segments and to additional streams within the MS4.

Measurable Goals

Year 1 – Create partnerships with local civic groups

Years 2-5 – Hold one clean-up event

3. Public Hearings

The City of Manchester will hold public hearings for all Stormwater Ordinance revisions. The public hearings will provide an opportunity for interested parties to comment on the proposed changes to the Ordinance prior to the changes being finalized. Public comments will be considered prior to proposed revisions receiving final approval.

Measurable Goals

Year 1 – Hold Public Hearing on Ordinance Revisions (Permit Changes)

Year 4 – Hold Public Hearing on Ordinance Revisions (Green Infrastructure Standards)

4. Annual Reports

The City of Manchester completes an Annual Report as required by the Permit

each September. The City will make these reports available to the public for public comment via the city's web site and a public hearing.

Measurable Goals

Years 1-5 – The City will hold a public hearing on the Annual Report prior to submitting it to the State.

5. Publicize Plans

The City of Manchester will make construction plans available for the public to review and comment on. These plans will be available via the city's web site and comments will be accepted via the site or by written correspondence.

Measurable Goals

Years 1-5 – Make construction plans available on the web and accept comments

6. Public Educational Deliverables

The City of Manchester will distribute educational flyers, brochures or other documents through public establishments like the Recreational Center and Water Department. These deliverables will highlight the importance of good housekeeping for stormwater quality and best practices for maintaining a stormwater smart community.

Measurable Goals

Year 1 – Design deliverables and distribute around establishments

Years 2-5 – Refine, update, and/or replace deliverables while identifying new establishment opportunities for distribution

B. HOMEOWNERS, LANDLORDS, AND SMALL BUSINESS OWNERS

The education of homeowners, landlords, and small business owners will generally be more specific than the educational efforts for the general public. While there is a good bit of overlap in the efforts, these entities will be targeted with educational materials that are specific to their undertaking. Efforts that will be performed for these entities are as follows:

1. Industrial and Commercial Facilities Inspection

The Codes Department will inspect all industrial and commercial facilities to ensure that all stormwater requirements are understood. This item includes a one

on one educational aspect with all of the business public in the city. Even many businesses that have no stormwater regulatory requirements are educated on what they can do at their facility to help improve stormwater quality, in general.

### Measurable Goals

Years 1-5 – Inspect 100% of existing and new commercial and industrial businesses

#### a. Green Infrastructure Handouts

When the city moves into the green infrastructure requirements of the permit, it will be crucial to properly educate those that will be responsible for the maintenance of these practices on the importance of proper maintenance and upkeep. It will also be crucial that both the city and the owner of the structures know what is required to properly maintain a given practice. The city will develop general materials on the importance of proper maintenance and how this maintenance affects stormwater quality. The city will also require that manufacturers and/or installers of green infrastructure practices provide written instructions on maintenance requirements to both the city and the owner of the practice.

### Measurable Goals

Years 1-3 – Collect and/or produce educational materials geared specifically toward green infrastructure maintenance.

Years 4-5 – Make sure that all homeowners, landlords, and small business owners that have green infrastructure practices on their property have received adequate educational and training materials to understand the importance of the maintenance and how to perform the maintenance of the practice.

#### b. Property Maintenance Materials

Equally important for property owners to understand is the importance of proper management of chemicals such as pesticides, herbicides, fertilizers, oils, and other automotive fluids. Education of this manner will be approached in a variety of ways. General educational materials will be made available to the general public that may be performing this type of property maintenance on their own. This will primarily be accomplished in the form of public service announcements. The city will also target professional users of these types of chemicals with a specific educational message. This message will be performed in more of a one-on-one format in the form of the commercial facilities inspections.

### Measurable Goals

Year 1 – Continue inspections of commercial properties; collect and/or produce educational materials directed specifically at the use of chemicals such as pesticides, herbicides, fertilizers, and automotive fluids.

Years 2-5 – Continue inspections of commercial properties; begin distribution / publication of educational materials

C. CONSULTANTS, DEVELOPERS, HOME BUILDERS AND CONTRACTORS

1. Development Meetings

The City will hold annual meetings with the construction and development community to inform and to gather input on the stormwater program. These meetings will be used as an avenue to inform contractors and developers of proposed changes in the stormwater program. They will also be used as a means of receiving public input on proposed changes to the program.

Measurable Goals

Years 1-5 – Hold one meeting each year of permit coverage.

2. Construction BMP Handouts

Proper selection and installation of best management practices on construction sites is critical to protecting the water quality of waters entering the MS4 and waters of the state. The City will maintain educational materials that can be given to those involved with construction sites that describes the types of management practices typically used on construction sites and how these practices are properly and most effectively used.

Measurable Goals

Years 1-5 – Make educational materials available to the development and construction public which describe the proper use of management practices on construction sites.

3. Green Infrastructure Handouts

When the city moves into the green infrastructure requirements of the permit, it will be crucial to properly educate those that will be responsible for the design and construction of these practices on the importance of proper design and installation. The city will acquire educational materials that can be given to designers, developers, and contractors on the proper selection and installation of best management practices.

Measurable Goals

Years 1-3 – Collect and/or produce educational materials geared specifically toward green infrastructure choice and installation.

Years 4-5 – Make sure that all designers, developers, and contractors that are involved in the design and installation of green infrastructure practices on their projects receive educational materials on the proper selection and installation of those practices.

#### D. MUNICIPALITIES AND MUNICIPAL STAFF

##### 1. Municipal Employee Training

Municipal employees in jobs that in any way could impact stormwater quality will receive training that is meant to educate them on the stormwater program and the ways in which municipal operations can be carried out in a manner that causes less impact.

##### Measurable Goals

Years 1-5 – Provide municipal stormwater training to pertinent municipal employees.

##### 2. Level 1 Certification

Those employees that are most closely involved in the day to day management of the stormwater program will maintain a Level 1 Certification from TDEC.

##### Measurable Goals

Years 1-5 – Employees responsible for management of the stormwater program will be Level 1 Certified at all times of permit coverage.

#### E. ELECTED / APPOINTED OFFICIALS

##### 1. Development Meetings

The City will hold annual meetings with the construction and development community to inform and to gather input on the stormwater program. These meetings will be used as an avenue to inform contractors and developers of proposed changes in the stormwater program. They will also be used as a means of receiving public input on proposed changes to the program. Elected and appointed city officials will be encouraged to attend these meetings to keep informed on the stormwater program and the thoughts of the development community on the program.

##### Measurable Goals

Years 1-5 – Hold one meeting each year of permit coverage.

## 2. Planning Commission Training

As the city progresses towards implementation of the green infrastructure requirements of the permit it will be necessary for the planning commission to become informed and involved in the process. Implementation will involve the review and likely modification of existing documents such as subdivision regulations and codes. The planning commission will need to be well educated in the ins and outs of the different types of controls that may be used to meet the green infrastructure requirements of the permit.

### Measurable Goals

Year 1 – Prepare training materials

Year 2 – Present training to planning commission and begin discussions

Year 3 – Continue planning and discussion meetings with planning commission

Year 4 – Make appropriate changes to codes and regulations to allow full implementation of green infrastructure standards.

Year 5 – Continue implementation and enforcement of green infrastructure standards

## VI. PROGRAM EVALUATION

The information and education plan is a product of a continuous planning and evaluation process. Evaluation is an important component of the information and education plan. It begins when the program is planned, is incorporated into each step of implementation, and is emphasized at critical points. Evaluation will be an ongoing process to measure the effectiveness of both the individual activities and the overall plan in increasing knowledge that could lead to positive behavior changes.

Annually, a formal evaluation of the plan will be conducted by those responsible for management of the program. This evaluation will consist of a review of the target audiences and the objectives that are trying to be met for each audience. Each objective will be evaluated to determine whether the current level of education is meeting the objective. The measurable goals for each specific task will also be evaluated to confirm that the goals have been met or to readjust the goals as may be necessary to adequately fulfill the objectives of the program.

## VII. PROGRAM RESPONSIBILITY

The Manchester Codes Department is responsible for the management of the stormwater management program. While the Codes Department will seek the assistance of other departments and agencies with the educating of the general public and other audiences discussed in this plan, the department will oversee all of the efforts.

## VIII. CONCLUSION

The effective education of the audiences described in this plan is of the utmost importance to the overall effectiveness of the stormwater management program. Without effective education, there will never be an atmosphere of change in the mentality of the public towards stormwater quality management. Therefore, this public information and education plan will be a constant work in progress and a guide to be utilized by the city to ensure that the education of the public remains consistent and effective in reaching the objectives of the plan. The plan will be modified as necessary to make further progress toward meeting the objectives of the overall stormwater management program.