Guidelines for Compliance with the General Permits for Stormwater Discharges From Small Municipal Separate Storm Sewer Systems in Massachusetts

These permits become effective on July 1, 2017.
These permits and the authorization to discharge expire at midnight, June 30, 2022.

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Preface

This document provides a summary of the new requirements within the Municipal Small Stormwater Separate Sewer Systems Permit (MS4), released by the EPA in 2016. This document also details the implementation deadlines for these requirements, as well as the expected costs by control measure from the EPA. Finally, we provide recommendations that can be used as guidelines to assist small to mid-size Massachusetts communities with achieving compliance with the new regulations and reducing costs for implementation. Additional reasoning and analysis for our recommendations can be found in our full report, "Reducing Costs for Meeting Stormwater Regulations for Small to Mid-size Communities in Massachusetts".

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Summary of Permit Requirements by Control Measure

Minimum Control Measure 1: Public Education and Outreach

New Permit Requirements:
The permittee shall continue to implement the public education program required by the MS4- 2003 permit by distributing educational material to the MS4 community.

1. Additionally, the educational program shall include education and outreach efforts for the following four audiences:
    a. Residents
    b. Businesses institutions (churches, hospitals), and commercial facilities
    c. Developers (construction)
    d. Industrial facilities
2. The permittee shall identify methods that it will use to evaluate the effectiveness of the educational messages and the overall education program. Any methods used to evaluate the effectiveness of the program shall be tied to the defined goals of the program and the overall objective of changes in behavior and knowledge.

Implementation Schedule:

1. The permittee must include (2) educational messages over the permit term to each audience identified above. The distribution of materials to each audience shall be spaced at least a year apart.
2. The permittee must include the evaluation of effectiveness in the annual report.

Minimum Control Measure 2: Public Involvement and Participation

New Permit Requirements:

1. The permittee shall annually provide the public an opportunity to participate in the review and implementation of the SWMP. The permittee shall report on the activities undertaken to provide public participation opportunities. Public participation opportunities may include, but are not limited to: websites, hotlines, clean-up teams, monitoring teams, or an advisory committee.

Implementation Schedule:

1. Annually, beginning year 2.

Minimum Control Measure 3: Illicit Discharge Detection and Elimination

New Permit Requirements:
The permittee shall implement an IDDE program to systematically find and eliminate sources of non-stormwater discharges to its municipal separate storm sewer system and implement procedures to prevent such discharges.

1. The permittee shall identify all known locations where Sanitary Sewer Overflows (SSO)s have discharged to the MS4 within the previous five (5) years. This shall include SSOs resulting,

during dry or wet weather, from inadequate conveyance capacities, or where interconnectivity of the storm and sanitary sewer infrastructure allows for communication of flow between the systems.

2. The system map shall be updated within two (2) years of the permit effective date to include the following information:
    a. Outfalls and receiving waters (required by MS4-2003 permit)
    b. Open channel conveyances (swales, ditches, etc.)
    c. Interconnections with other MS4s and other storm sewer systems
    d. Municipally-owned stormwater treatment structures (e.g., detention and retention basins, infiltration systems, bioretention areas, water quality swales, gross particle separators, oil/water separators, or other proprietary systems)
    e. Waterbodies identified by name and indication of all use impairments as identified on the most recent EPA approved Massachusetts Integrated List of waters report
    f. Initial catchment delineations
3. The system map shall be updated annually as the following information becomes available during implementation of catchment investigation procedures. This information must be included in the map for all outfalls within ten (10) years of the permit effective date:
    a. Outfall spatial location (latitude and longitude with a minimum accuracy of +/-30 feet)
    b. Pipes
    c. Manholes
    d. Catch basins
    e. Refined catchment delineations. Catchment delineations shall be updated to reflect information collected during catchment investigations
    f. Municipal sanitary sewer system (if available)
    g. Municipal combined sewer system (if applicable).
4. The IDDE program shall be recorded in a written (hardcopy or electronic) document. At a minimum this shall include the written procedures for dry weather outfall screening and sampling and for catchment investigations. The permittee shall implement the IDDE program in accordance with the goals and milestones contained in this part.
5. The permittee shall assess and priority rank the outfalls in terms of their potential to have illicit discharges and SSOs and the related public health significance. This ranking will determine the priority order for MA MS4 General Permit 34 screening of outfalls and interconnections.
6. All outfalls/interconnections (excluding Problem and excluded Outfalls) shall be inspected for the presence of dry weather flow
7. The permittee shall, at a minimum, annually provide training to employees involved in IDDE program about the program, including how to recognize illicit discharges and SSOs. The permittee shall report on the frequency and type of employee training in the annual report.

Implementation Schedule:

1. Within one (1) year of the effective date of the permit, the permittee shall develop an inventory of all identified SSOs.
2. The system map shall be updated within two (2) years of the permit date with initial required information.

3. The system map shall be updated within ten (10) years for additional requirements, and annually as information becomes available
4. The written (hardcopy or electronic) IDDE program shall be completed within one (1) year of the effective date of the permit and updated in accordance with the milestones of this part.
5. An initial outfall and interconnection inventory and priority ranking to assess illicit discharge potential based on existing information shall be completed within one (1) year from the effective date of the permit; an updated inventory and ranking will be provided in each annual report thereafter.
6. All outfalls/interconnections (excluding Problem and excluded Outfalls) shall be inspected for the presence of dry weather flow within three (3) years of the permit effective date.
7. Training shall take place at a minimum annually.

Minimum Control Measure 4: Construction Site Stormwater Runoff Control

New Permit Requirements:

1. The permittee shall develop and implement a construction site runoff control program that includes the following elements:
    a. An ordinance or regulatory mechanism that requires the use of sediment and erosion control practices at construction sites. In addition to addressing sediment and erosion control, the ordinance must include controls for other wastes on constructions sites such as demolition debris, litter and sanitary wastes.
    b. Written (hardcopy or electronic) procedures for site inspections and enforcement of sediment and erosion control measures.
    c. Requirements for construction site operators performing land disturbance activities within the MS4 jurisdiction that result in stormwater discharges to the MS4 to implement a sediment and erosion control program that includes BMPs appropriate for the conditions at the construction site
    d. Requirements for construction site operators within the MS4 jurisdiction to control wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes. These wastes may not be discharged to the MS4.
    e. Written procedures for site plan review and inspection and enforcement.

Implementation Schedule:

1. Varying Dates for Implementation
    a. Development of an ordinance or other regulatory mechanism was a requirement of the MS4-2003 permit.The ordinance or other regulatory mechanism required by the MS4-2003 permit shall have been effective by May 1, 2008.
    b. If not already existing, these procedures shall be completed within one (1) year from the effective date of the permit.
    c. Ongoing
    d. Ongoing
    e. If not already existing, the procedures for site plan review and inspection and enforcement shall be completed within one (1) year from the effective date of the permit.

Minimum Control Measure 5: New Permit Requirements: Post Construction Stormwater Management

New Permit Requirements:
Permittees shall develop, implement, and enforce a program to address post-construction stormwater runoff from all new development and redevelopment sites that disturb one or more acres and discharge into the permittees MS4 at a minimum. Permittees authorized under the MS4-2003 permit shall continue to implement and enforce their program and modify as necessary to meet the requirements of this part.

1. The permittee's new development/ redevelopment program shall include sites less than one acre if the site is part of a larger common plan of development or redevelopment which disturbs one or more acre.
2. The permittee shall develop or modify, as appropriate, an ordinance or other regulatory mechanism to contain provisions that are as least as stringent as those outlined in 2.3.6.a.ii.4 of the MS4 Permit
3. The permittee shall require, at a minimum, the submission of as-built drawings. The as-built drawings must depict all on site controls, both structural and non-structural, designed to manage the stormwater associated with the completed site (post construction stormwater management).
4. The permittee shall develop a report assessing current street design and parking lot guidelines and other local requirements that affect the creation of impervious cover.
5. The permittee shall develop a report assessing existing local regulations to determine the feasibility of making, at a minimum, the following practices allowable when appropriate site conditions exist:
    a. Green Roofs
    b. Infiltration Practices
    c. Water Harvesting devices
6. The permittee shall identify a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs designed to reduce the frequency, volume, and pollutant loads of stormwater discharges to and from its MS4 through the reduction of impervious area.

Implementation Schedule:

1. Ongoing
2. The permittee's development or modification of regulatory mechanism must occur within two (2) years of the effective date of the permit
3. The as-built drawing must be submitted no later than two (2) years after completion of construction projects.
4. The assessment of current street design and parking lots must occur within four (4) years of the effective date of this permit.
5. The report assessing existing local regulations to determine the feasibility of implementing the BMPS stated above shall be implemented within four (4) years from the effective date
6. The identification of 5 properties appropriate for BMP retrofits must be submitted within four (4) years from the effective date of this permit.

Minimum Control Measure 6: Good Housekeeping and Pollution Prevention for Permittee Owned Operations (Excluding Stormwater Pollution Prevention Plan)

New Permit Requirements:

The permittee shall implement an operations and maintenance program for permittee-owned operations that has a goal of preventing or reducing pollutant runoff and protecting water quality from all permittee-owned operations.

1. The permittee shall develop, if not already developed, written (hardcopy or electronic) operations and maintenance procedures for the municipal activities listed below. These written procedures shall be included as part of the SWMP.
2. The permittee shall develop an inventory of all permittee owned facilities within the categories listed below. The permittee shall review this inventory annually and update as necessary.
    a. Parks and Open Space
    b. Buildings and facilities where pollutants are exposed to stormwater runoff
    c. Vehicles and Equipment
3. The permittee shall establish a written (hardcopy or electronic) program detailing the activities and procedures the permittee will implement so that the MS4 infrastructure is maintained in a timely manner to reduce the discharge of pollutants from the MS4.
4. The permittee shall optimize routine inspections, cleaning and maintenance of catch basins such that the following conditions are met:
    a. Prioritize inspection and maintenance for catch basins located near construction activities (roadway construction, residential, commercial, or industrial development or redevelopment). Clean catch basins in such areas more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings.
    b. Establish a schedule with a goal that the frequency of routine cleaning will ensure that no catch basin at anytime will be more than 50 percent full.
    c. If a catch basin sump is more than 50 percent full during two consecutive routine inspections/cleaning events, the permittee shall document that finding, investigate the contributing drainage area for sources of excessive sediment loading, and to the extent practicable, abate contributing sources. The permittee shall describe any actions taken in its annual report.
    d. For the purposes of this part, an excessive sediment or debris loading is a catch basin sump more than 50 percent full. A catch basin sump is more than 50 percent full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin.
    e. The permittee shall document in the SWMP and in the first annual report its plan for optimizing catch basin cleaning, inspection plans, or its schedule for gathering information to develop the optimization plan. Documentation shall include metrics and other information used to reach the determination that the established plan for cleaning and maintenance is optimal for the MS4. The permittee shall keep a log of catch basins cleaned or inspected.
    f. The permittee shall report in each annual report the total number of catch basins, number inspected, number cleaned, and the total volume or mass of material removed from all catch basins.

5. The permittee shall establish and implement procedures for sweeping and/or cleaning streets, and permittee-owned parking lots. All streets with the exception of rural uncurbed roads with no catch basins or high speed limited access highways shall be swept and/or cleaned a minimum of once per year in the spring (following winter activities such as sanding).
6. The permittee shall ensure proper storage of catch basin cleanings and street sweepings prior to disposal or reuse such that they do not discharge to receiving MA MS4 General Permit 50 waters.
7. The permittee shall establish and implement procedures for winter road maintenance including the use and storage of salt and sand; minimize the use of sodium chloride and other salts, and evaluate opportunities for use of alternative materials; and ensure that snow disposal activities do not result in disposal of snow into waters of the United States. For purposes of this MS4 Permit, salt shall mean any chloride-containing material used to treat paved surfaces for deicing, including sodium chloride, calcium chloride, magnesium chloride, and brine solutions.
8. The permittee shall establish and implement inspection and maintenance frequencies and procedures for all stormwater treatment structures such as water quality swales, retention/detention basins, infiltration structures, proprietary treatment devices or other similar structures. All permittee-owned stormwater treatment structures (excluding catch basins) shall be inspected annually at a minimum.

Implementation Schedule:

1. The written operations and maintenance procedures for municipal activities must be developed within two (2) year of the effective date of this permit.
2. The inventory of all permittee owned facilities must be developed within two (2) year of the effective date of this permit.
3. The written operations and maintenance procedures for MS4 infrastructure must be developed within two (2) year of the effective date of this permit.
4. Annually
5. Annually
6. Annually
7. Not Provided
8. Ongoing

Breakdown By Control Measure

MCM 1: Public Education and Outreach	
New Permit Requirements	Implementation Schedule
Two (2) educational messages to four (4) target audiences	Annually, each message for single audience spaced one year apart
Evaluation of effectiveness of educational messages	Annually, beginning year one

Comparison of EPA Estimates for Compliance with the Public Education and Outreach Control Measure for the Current MS4 Permit and the 2014 Draft Permit

Suburban Community	**2003**				**2014**			
Minimum Control Measure	**Cost**		**Hours**		**Cost**		**Hours**	
	Low	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
Public Education	$3,000	$40,500	30	400	$11,200	$73,800	112	730

Adapted From:

https://www3.epa.gov/region1/npdes/stormwater/ma/ma-stormwater-program-cost-evaluation.pdf

MCM 2: Public Involvement and Participation	
New Permit Requirements	Implementation Schedule
Provide Opportunity for public to participate in the review and implementation of the SWMP	Annually
Report on the activities undertaken to provide public participation opportunities	Annually

Comparison of EPA Estimates for Compliance with the Public Involvement and Participation Control Measure for the Current MS4 Permit and the 2014 Draft Permit

Suburban Community	**2003**				**2014**			
Minimum Control Measure	**Cost**		**Hours**		**Cost**		**Hours**	
	Low	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
Public Participation	$7,000	$14,000	60	120	$9,000	$17,000	80	150

Adapted From:
https://www3.epa.gov/region1/npdes/stormwater/ma/ma-stormwater-program-cost-evaluation.pdf

MCM 3: Illicit Discharge Detection and Elimination	
New Permit Requirements	Implementation Schedule
Develop an inventory of all identified SSOs	Within one (1) year of the effective date of the permit
The system map shall be updated with required information	Within two (2) year of the effective date of the permit
The system map shall be updated with information for additional requirements	Within ten (10) years of the effective date of the permit, and annually as information becomes available
The written (hardcopy or electronic) IDDE program shall be completed	Within one (1) year of the effective date of the permit
Initial outfall and interconnection inventory and priority ranking to assess illicit discharge potential based on existing information	Within one (1) year from the effective date of the permit; an updated inventory and ranking will be provided in each annual report thereafter.
All outfalls/interconnections (excluding Problem and excluded Outfalls) shall be inspected for the presence of dry weather flow	Within three (3) year of the effective date of the permit
The permittee shall, at a minimum, annually provide training to employees involved in IDDE program about the program, including how to recognize illicit discharges and SSOs.	Annually

Comparison of EPA Estimates for Compliance with the Illicit Discharge Detection and Elimination Control Measure for the Current MS4 Permit and the 2014 Draft Permit

Suburban Community	**2003**				**2014**			
Minimum Control Measure	**Cost**		**Hours**		**Cost**		**Hours**	
	Low	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
IDDE	$37,500	$65,100	370	619	$86,900	$267,000	806	2510

Adapted From:
https://www3.epa.gov/region1/npdes/stormwater/ma/ma-stormwater-program-cost-evaluation.pdf

MCM 4: Construction Site Stormwater Runoff Control	
New Permit Requirements	Implementation Schedule
Written (hardcopy or electronic) procedures for site inspections and enforcement of sediment and erosion control measures.	Within one (1) year of the effective date of the permit
Implement a sediment and erosion control program that includes BMPs appropriate for the conditions at the construction site	Ongoing
Requirements for construction site operators within the MS4 jurisdiction to control wastes	Ongoing
Written procedures for site plan review and inspection and enforcement.	If not already existing, the procedures for site plan review and inspection and enforcement shall be completed within one (1) year from the effective date of the permit.

Comparison of EPA Estimates for Compliance with the Construction Stormwater Management Control Measure for the Current MS4 Permit and the 2014 Draft Permit

Suburban Community	**2003**				**2014**			
Minimum Control Measure	**Cost**		**Hours**		**Cost**		**Hours**	
	Low	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
Post Construction Site Control	$6,000	$12,000	40	80	$21,200	$38,400	182	324

Adapted From:
https://www3.epa.gov/region1/npdes/stormwater/ma/ma-stormwater-program-cost-evaluation.pdf

MCM 5: Post Construction StormWater Management	
New Permit Requirements	Implementation Schedule
Inclusion sites less than one acre if the site is part of a larger common plan of development or redevelopment which disturbs one or more acre.	Ongoing
Modification, as appropriate, of ordinance or other regulatory mechanism to contain provisions that are as least as stringent as those outlined in 2.3.6.a.ii.4 of the MS4 Permit.	Within two (2) year of the effective date of the permit
Submission of as-built drawings.	Within two (2) year of the effective date of the permit
Assessment of current street design and parking lot guidelines and other local requirements that affect the creation of impervious cover.	Within four (4) year of the effective date of the permit
Report assessing existing local regulations to determine the feasibility of implementing the BMPS	Within four (4) year of the effective date of the permit
Identification of 5 properties appropriate for BMP retrofits	Within four (4) year of the effective date of the permit

Comparison of EPA Estimates for Compliance with the Post Construction Stormwater Management Control Measure for the Current MS4 Permit and the 2014 Draft Permit

Suburban Community	**2003**				**2014**			
Minimum Control Measure	**Cost**		**Hours**		**Cost**		**Hours**	
	Low	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
Post Construction Site Control	$6,000	$12,000	40	80	$21,200	$38,400	182	324

Adapted From:
https://www3.epa.gov/region1/npdes/stormwater/ma/ma-stormwater-program-cost-evaluation.pdf

MCM 6: Good Housekeeping (Excluding Stormwater Pollution Prevention Plan)	
New Permit Requirements	Implementation Schedule
Written operations and maintenance procedures for municipal activities	Within two (2) year of the effective date of the permit
Inventory of all permittee owned facilities	Within two (2) year of the effective date of the permit
Written operations and maintenance procedures for MS4 infrastructure	Within two (2) year of the effective date of the permit
The permittee shall optimize routine inspections, cleaning and maintenance of catch basins	Annually
Establish and implement procedures for sweeping and/or cleaning streets, and permittee-owned parking lots	Annually
Proper storage of catch basin cleanings and street sweepings	Annually
Establish and implement procedures for winter road maintenance	Not Provided
Establish and implement inspection and maintenance frequencies and procedures for all stormwater treatment structures	Ongoing

Comparison of EPA Estimates for Compliance with the Post Construction Stormwater Management Control Measure for the Current MS4 Permit and the 2014 Draft Permit

Suburban Community		**2003**				**2014**			
Minimum Control Measure		**Cost**		**Hours**		**Cost**		**Hours**	
		Low	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
Good Housekeeping	Rented Trucks	$26,000	$383,000	72	84	$278,000	$557,000	602	1190
	Purchased Trucks	$307,000	$678,000	72	84	$390,000	$852,000	602	1190

Adapted From:

https://www3.epa.gov/region1/npdes/stormwater/ma/ma-stormwater-program-cost-evaluation.pdf

Recommendations

Small to mid-size MS4 communities in Massachusetts can use the following recommendations as guidelines to reduce costs for implementation:

Recommendation 1: Communities should assess internal staffing needs for the increase in new requirements.

We have found that many communities in Massachusetts were understaffed during the current permit, which could cause potential problems for meeting the new MS4 permit requirements. We propose that communities evaluate their current stormwater management program and the new MS4 permit requirements to determine which areas they will need the most resources to address and determine the increase in resources that will be required. The new permit requires additional collaboration between different departments within local government. Staffing in these additional departments should be considered when reviewing the new permit requirements. Communities should assess the quantity of tasks outsourced to consultants as well as the corresponding fees, because it may cost less to hire additional internal staff to complete these tasks. Additionally, communities should consider the technical level required for certain tasks. For example, some communities could cut costs by hiring interns to map outfalls or conduct dry-weather sampling, whereas phosphorus reduction measures may need to be handled by an engineer or consultant. These measures will help communities ensure they are properly staffed to comply with the new requirements, as well as reduce overall labor costs.

Recommendation 2: Allocate enough for Good Housekeeping, which can cost over half of the budget for stormwater management.

According to the EPA's cost estimates for communities, they anticipate that the Good Housekeeping control measure will account for almost 60% of stormwater funding annually. The Good Housekeeping control measure specifically requires materials costs (i.e. salt, sand, and trucks), street sweeping, building maintenance, and more. Communities need to consider referring to the cost estimates from the EPA when preparing their budget for implementation of the new MS4 Permit. Communities may consider cost saving options, such as switching from sand to salt-sand mixtures during the winter as it can reduce costs associated with catch basin cleaning.

Recommendation 3: Communities requiring additional assistance with stormwater management should join a coalition or collaborative if not involved in one.

We advise that communities consider joining a stormwater coalition. In order to do so, towns can evaluate their current stormwater management program and consider what other assistance a coalition can offer to help. Member communities of stormwater coalitions and other partnerships share cost information, technical products, public education tools, field procedures, documentation, training opportunities, and more. When member towns collaborate in a coalition, redundancy is reduced because the towns no longer need to develop or pay for resources that the coalitions already provide. We determined that stormwater coalitions are beneficial for aiding communities in meeting regulation requirements. Thus, communities may save time in the process of implementing the MS4 permit and managing stormwater while being a part of a coalition. Joining a coalition can especially be helpful for communities without much of a

stormwater management program since they can take advantage of the templates and toolkits provided by coalition. Communities that are further developed can add their resources and intelligence (i.e. stormwater management practices) to the coalition for the benefit of the collaboration as a whole. In return, the town can be recognized for their extensive work and will be able to gain access to resources they may not have.

Recommendation 4: Communities that are struggling to finance implementations for the current requirements should consider alternative methods of funding for the new permit, such as utilities or grants.

Towns in Massachusetts that are struggling with funding the implementation of the MS4 permit and are concerned about funding the new permit as well can utilize different sources for funding to implement stormwater requirements. Three important sources for funding are grants, stormwater utilities, and stormwater coalitions that may have funding already (through grants or saved funding). Grants are a good opportunity to improve infrastructure and management for stormwater. Grants also motivate communities to work towards implementation of stormwater regulations as they normally have a deadline that has to be met. Grants are normally applied for by a stormwater coalition that can support their communities effectively with this money in addition to saved funding they may have. Also, grants geared towards stormwater management also support regionalization (of coalitions). The MassDEP provides technical assistance with the 604B Grant for watersheds and water quality in Massachusetts. They have recently awarded the Central Massachusetts Regional Stormwater Coalition with the 604B Grant. Apart from the MassDEP, the Lieutenant Governor of Massachusetts suggested that coalitions in need of extra support should apply for grants under the Community Compact Program, offered by the Massachusetts' government, which currently has five million dollars in grants. Aside from grants, towns can also implement stormwater utilities. Stormwater utilities work well because they free up the municipal budget so that it can be used for other matters. However, towns should be aware that establishing a stormwater utility can result in political issues. It is difficult to persuade residents and businesses to agree with paying a stormwater utility, especially if large industries lobby against it. In conclusion to this recommendation, communities do not fully understand the new MS4 permit and therefore cannot finalize their budgets, and the cost allocation for IDDE cannot be accurately determined due to the possibility of severe illicit discharges. These are important reasons for why it is vital for communities to secure the funding they need because many towns are not completely sure of how much money they will require and if unforeseen scenarios (i.e. severe illicit discharges) will arise and cost them much more.

Recommendation 5: Stormwater coalitions and communities should compile their Educational Outreach materials and unify them in order to save resources.

Many of the stormwater coalitions and communities within them have developed their own sets of educational outreach materials. While these materials are useful in educating the public on the negative side effects associated with stormwater pollution and actions that they can take to mitigate these effects, creating these materials is a process that requires a lot of time and money that could be used elsewhere. The EPA estimated that the Public Education and Outreach control measure can cost up to $73,800 for the new permit and take up to 730 hours for suburban communities. By compiling the educational outreach materials, it will be easier for communities to find materials that target the audience that they are aiming to address. The new permit requires

that communities provide material to four target audiences: residents, businesses, institutions (churches, hospitals) and commercial facilities, developers (construction), and industrial facilities. The communities must then document and assess the effectiveness of the educational programs. It is up to the regulated communities to create their own metric for effectiveness. This creates a wide range as to what communities would be including in their annual reports. If coalitions are able to distribute a more uniform way of assessing effectiveness then it would save member communities time and allow them to compare their effectiveness in reaching their audiences with other communities.

List of References

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