



ANTRIM TOWNSHIP

MS4

STORMWATER MANAGEMENT PLAN

Revised June 2019

TABLE OF CONTENTS

INTRODUCTION	1
MINIMUM CONTROL MEASURE # 1	
PUBLIC EDUCATION AND OUTREACH PROGRAM	2
MINIMUM CONTROL MEASURE # 2	
PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM	5
MINIMUM CONTROL MEASURE # 3	
ILLICIT DISCHARGE DETECTION AND ELIMINATION PLAN	9
MINIMUM CONTROL MEASURE # 4	
CONSTRUCTION SITE STORMWATER RUNOFF CONTROL	15
○ Memorandum of Understanding	18
MINIMUM CONTROL MEASURE #5	
POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW OR REDEVELOPMENT	22
MINIMUM CONTROL MEASURE # 6	
POLLUTION PREVENTION AND GOOD HOUSEKEEPING	25
○ Antrim Township Road Inventory	30

Introduction:

An MS4 is an acronym that stands for Municipal Separate Storm Sewer System. A MS4 is a publicly owned system of conveyances (including catch basins, curbs, gutters, ditches, man-made channels, pipes, tunnels, storm drains, etc.) that discharge untreated Stormwater into the waterways of the United States.

Antrim Township was designated as a small MS4 in 2004 due to the multiple creeks and streams in our area that receive stormwater and eventually flow into the Potomac River and then the Chesapeake Bay. We are federally required by the Environmental Protection Agency (EPA) to obtain a National Pollutant Discharge Elimination System (NPDES) permit issued by the Pennsylvania Department of Environmental Protection (PA DEP). Permit NO. PAI133536 effective on July 1, 2018 will expire on June 30, 2023.

As required by the NPDES permit, the Township must develop, implement, and enforce a Stormwater Management Program (SWMP). The goal of the SWMP is to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act and Pennsylvania Clean Streams Law. The permit consists of 6 Minimum Control Measures (MCM). Within each MCM, there are multiple Best Management Practices (BMP) to meet the goal of each MCM.

The SWMP will be carried out annually over the term of the permit (5 years). The program will be monitored and evaluated regularly to ensure successful implementations of BMPs. Successful implementation will help to minimize the negative impacts to waterways caused by polluted stormwater discharges.

Public Education and Outreach on Stormwater Impacts

MCM #1: Public Education and Outreach on Stormwater Impacts

- Best Management Practice #1: Develop, implement, and maintain a written Public Education and Outreach Program (PEOP).
- Best Management Practice #2: Develop and maintain list of target audience groups served by MS4.
- Best Management Practice #3: Annual Publication of general Stormwater information, description of Stormwater Management Plan (SWMP), and/or Stormwater activity information.
- Best Management Practice #4: Distribute a variety of Stormwater educational material/information to target audience.

The Public Education and Outreach Program (PEOP) for the Township of Antrim, Franklin County, Pennsylvania has been established in accordance with the Township's Municipal Separate Storm Sewer System's (MS4) National Pollutant Discharge Elimination System (NPDES) Individual Permit Number PAI133536 effective July 1, 2018. This program is required for the Township of Antrim to maintain compliance with the Pennsylvania Department of Environmental Protection (PADEP) through the enforcement of the criteria as set forth in our NPDES Permit. This program is subject to periodic review and revision to maintain compliance with our NPDES Permit and with the PADEP. The PEOP applies to everyone who lives, works, or owns property in the Township of Antrim, Franklin County, Pennsylvania.

BMP #1 - Develop, implement, and maintain a written Public Education and Outreach Program (PEOP).

Goal – Antrim Township is an existing permittee. Our NPDES permit requires that the PEOP is reviewed and revised as necessary. The current PEOP has been reviewed and updated as of June 2019. Antrim Township will review and adjust the PEOP once annually or more frequently as needed to make the program as effective as possible.

BMP #2 - Develop and maintain list of target audience groups served by MS4.

Goal – Antrim Township's list of target audiences shall be reviewed and updated annually and prior to mailings being sent out. The current list has been reviewed and updated as of March 2019. The new list was updated to include all Township Residents, HOAs, businesses, developers, real estate companies, Township employees/staff, schools & children.

BMP #3 - Annual Publication of general Stormwater information, description of SWMP, and/or Stormwater activity information.

Goal – The Township NPDES permit requires the Township to annually publish general Stormwater information. For this BMP, the Township has chosen to add and maintain a Stormwater section on the website (www.twp.antrim.pa.us). The website is a great tool to learn about Stormwater. Included on the website is general information about MS4 and Stormwater, links to DEP and EPA websites, a section

for kid's activities, and more. We will continue to maintain the website and update it regularly with new and exciting information and links.

BMP #4 - Distribute a variety of Stormwater educational material/information to target audience.

Goal – The last BMP of the Public Education and Outreach MCM requires the distribution of educational materials and/or information to the target audiences listed in BMP#2. Per the NPDES permit, we are required to utilize at least two methods annually. As a Township, we find education to be a key factor in the success of our PEOP and PIPP. We have chosen to implement more than two methods per year. The Township ideas and goals are as follows:

<ul style="list-style-type: none"> • Presentations to the Environmental Science Class at G-A Middle and High School. This includes hands on activities and experiments. 	<ul style="list-style-type: none"> • Stormwater presentation to 3rd graders of the G-A school district during their annual tour. This includes an activity book and goody bag for all students.
<ul style="list-style-type: none"> • Flyer to target audience "What is Stormwater and how does it impact you?". 	<ul style="list-style-type: none"> • Run an article in the newspaper on good housekeeping practices for fall and winter season.
<ul style="list-style-type: none"> • Distribute a fact sheet or postcard with seasonal cleanup tips and reminders to inspect their stormwater controls after each rain event. 	<ul style="list-style-type: none"> • Distribute a newsletter containing stormwater awareness information and links to where they can find additional information.
<ul style="list-style-type: none"> • Radio segment on good housekeeping practices for stormwater and new stormwater regulations. 	<ul style="list-style-type: none"> • Advertisements or pamphlets placed around various public locations promoting stormwater awareness.
<ul style="list-style-type: none"> • Provide pollution prevention tips to businesses through mailers. 	<ul style="list-style-type: none"> • Provide posters to local businesses to post in employee breakrooms on stormwater awareness.
<ul style="list-style-type: none"> • Hold an Art Contest in the park where stormwater awareness installation/statues will be displayed. 	<ul style="list-style-type: none"> • Boxes with flyers at the Township park. These would be replaced/updated with different flyers periodically.
<ul style="list-style-type: none"> • Stream Clean-ups. 	<ul style="list-style-type: none"> • What is Illicit Discharge and how to report it? Flyer.
<ul style="list-style-type: none"> • Streamside Eco Day with Greencastle-Antrim 6th Graders. 	<ul style="list-style-type: none"> • Public/Volunteer outfall inspections events.
<ul style="list-style-type: none"> • Implementation of common waste recycling day for Township residents. 	<ul style="list-style-type: none"> •

Public Involvement / Participation

MCM #2: Public Involvement / Participation

- Best Management Practice #1: Develop, implement, and maintain a written Public Involvement and Participation Program (PIPP).
- Best Management Practice #2: Advertise and solicit public input for the following prior to adoption and submission.
 - Stormwater Management Ordinances.
 - Pollutant Reduction Plans (PRPs).
- Best Management Practice #3: Regularly solicit public involvement from target audience using distribution and outreach methods. This shall include public reporting of illicit discharge.

The Public Involvement and Participation Program (PIPP) for the Township of Antrim, Franklin County, Pennsylvania has been established in accordance with the Township's Municipal Separate Storm Sewer System's (MS4) National Pollutant Discharge Elimination System (NPDES) Individual Permit Number PA133536 effective July 1, 2018. This program is required for the Township of Antrim to maintain compliance with the Pennsylvania Department of Environmental Protection through the enforcement of the criteria as set forth in our NPDES Permit. This program is subject to periodic review and revision to maintain compliance with our NPDES Permit and with the PADEP.

The PIPP is open to anyone who lives, works, or owns property in Antrim Township or surrounding communities. Any interested parties are encouraged to take part and assist the Township in various education activities through out the permit year.

BMP #1 - Develop, implement, and maintain a written Public Involvement and Participation Program (PIPP).

Goal – Antrim Township is an existing permittee. Our NPDES permit requires that the PIPP is reviewed annually and revised as necessary. The previous PIPP was ineffective in engaging the public. We have reviewed and updated the PIPP as of June 2019. Antrim Township will continue to review and adjust the PIPP to make the program as effective as possible. As part of our PIPP, the Township will:

1. Host multiple events, meetings or workshops for the public to participate in the decision-making processes associated with the programs and activities related to this permit. Public Service Announcements, postings to our website, social media, local newspaper articles, and flyers will be utilized to inform the public of the event, meeting or workshop in hopes of reaching a larger audience.
2. Initiate communication with Watershed groups and Environmental organizations that operate within our watershed. Routine communication with these groups will provide additional resources and knowledge to be effective in our goals while reaching a larger network of people for participation.
3. Antrim Township encourages people to be as engaged and as informed as they can be. Therefore, the Township posts most of our maps, documents, and reports to the Township Website. All maps, documents and reports required by our NPDES permit are available for review at the Township Office or by mail upon request.

BMP #2 - Advertise and solicit public input for Ordinances and PRPs prior to adoption and submission.

Goal – Antrim Township encourages interested parties to get involved in the creation, implementation and growth of the stormwater program and associated regulations. Public meetings are held for Ordinance changes, Stormwater Management Plan (SWMP) updates, and for the creation of our PRP.

Antrim Township will be updating the Stormwater Ordinance in 2019 to be consistent with DEP's 2022 model. Public meetings will be held during the process of drafting and adopting the Ordinance. Public participation is encouraged throughout this process. All public comment will be documented and evaluated.

Antrim Township has adopted a Pollutant Reduction Plan (PRP). A public presentation was conducted, and public comment was encouraged. Public comment was accepted September 27, 2017 through October 31, 2017 as indicated in the advertisement to allow the public to submit through mail or in person. All comments were reviewed and the PRP was revised and adopted as follows:

<u>PRP Meeting</u>
<ul style="list-style-type: none">• 10/24/2017 @ 7pm.• BOS Meeting.• Presentation from Dewberry PRP.• Advertisement in The Record Herald on 09/26/2017 & 10/06/2017.
<ul style="list-style-type: none">• 11/17/2017 @ 7pm.• BOS Meeting.• PRP adopted by BOS.

Antrim Township has also engaged the public throughout the creation of our stormwater fee. The fee will fund the improvements of the Stormwater Management Plan and the PRP. Meetings held to date are listed below. We anticipate having one more meeting to finalize the stormwater fee report and then we will begin the adoption process.

<u>Stormwater Fee Meetings</u>
<ul style="list-style-type: none">• 2/26/2019 @ 7pm.• BOS Meeting.• Presentation from Dewberry on ERU calculations.• Advertisement in The Record Herald on 2/1/19 & 2/9/19.
<ul style="list-style-type: none">• 3/19/19 @ 6pm.• Work Session to discuss the direction the BOS wanted to go with the fee.• Presentation given by Sylvia.• Advertisement in The Record Herald on 3/1/19.
<ul style="list-style-type: none">• 4/30/19 @ 6pm.• Work Session to discuss new calculations.• Presentation given by Amber.• Advertisement in The Record Herald.

BMP #3 - Regularly solicit public involvement from target audience using distribution and outreach methods.

Goal – After an ineffective attempt for public involvement, the Township has made some changes on the approach to get the public involved. Through the outreach methods in our Public Education and Outreach Program (PEOP) and routine communication with Watershed Associations, we believe we will gain public participation in the program. As part of our public involvement, the Township will have multiple sources of reporting Illicit Discharge. These will include a link on the website, a direct phone number, and coming into the Township building. The following are additional efforts to be successful:

1. Antrim Township will solicit participation from target audiences on the implementation of the SWMP. Notice will be given to the public before the meeting or event. At the meeting or event, we will discuss the Township's progress and accomplishments. During that meeting we will accept public comment to be reviewed and considered for inclusion into the SWMP.
2. All participation by the Township in MS4 activities are documented through electronic document management, ESRI, and spreadsheets.
3. All participation and cooperation by the public in Stormwater activities are documented through electronic document management, ESRI, and spreadsheets.

A Stormwater Fee will be implemented on all parcels within Antrim Township. As part of the fee program, we are offering credits to the amount owed if the resident or property owner is an active member of an existing organization. The existing organization's goals and activities must align with the Township by doing the following:

- Reduction of Stormwater runoff rate or volume.
- Reduction of sediment or nutrient loading.
- Protection of local waterways, forests, wetlands, meadows, or wilderness areas.
- Minimize erosion.
- Public education, outreach, or training of the above.

Illicit Discharge Detection and Elimination (IDDE)

MCM #3: Illicit Discharge Detection and Elimination (IDD&E)

- Best Management Practice #1: Develop and implement a written program for the detection, elimination, and prevention of illicit discharge. The program includes:
 - Procedures for identifying priority areas.
 - Procedures for screening outfalls in priority areas.
 - Procedures for identifying the source of an illicit discharge when contaminated flow is detected.
 - Procedures for eliminating an illicit discharge.
 - Procedures for assessing the potential for illicit discharges caused by the interaction of sewage disposal systems with storm drain systems.
 - Mechanisms for gaining access to private property and for investigating illicit connections and discharge.
 - Procedures for program documentation, evaluation, and assessment.
 - Procedures for addressing information or complaints from the public.
- Best Management Practice #2: Develop and maintain map(s) with the following:
 - Permit and urbanized area boundaries.
 - Location of all outfalls.
 - Observations points (if applicable).
 - Location and names of all surface waters that receive discharge from outfalls.
 - Outfalls and observation points need to be numbered on the map.
- Best Management Practice #3: Develop and maintain map(s) that show the entire Stormwater collection system within permit boundaries. This can be included in the same map from BMP #2.
- Best Management Practice #4: Conduct dry weather screening of outfalls and observation points to evaluate the presence of illicit discharges.
- Best Management Practice #5: Enact a Stormwater Management Ordinance to implement and enforce a Stormwater Management Program.
- Best Management Practice #6: Provide educational outreach to property owners, businesses, employees and municipal employees about the program to detect and eliminate illicit discharge.

The Illicit Discharge Detection and Elimination (IDD&E) program for the Township of Antrim, Franklin County, Pennsylvania has been established in accordance with the Township's Municipal Separate Storm Sewer System's (MS4) National Pollutant Discharge Elimination System (NPDES) Individual Permit Number PAI133536 effective July 1, 2018. This program is required for the Township of Antrim to maintain compliance with the Pennsylvania Department of Environmental Protection (PADEP) through the enforcement of the criteria as set forth in our NPDES Permit. This program is subject to periodic review and revision to maintain compliance with our NPDES Permit and with the PADEP.

Antrim Township owns roads that generate stormwater runoff. We inspect our outfalls (the lowest points where stormwater leaves the roadway) to ensure that we are not polluting water ways or causing areas of potential flooding. Antrim Township also regulates stormwater on private property. We require regular inspection of private systems located within developments, on residential properties, and on non-residential properties.

BMP #1 - Develop and implement a written program for the detection, elimination, and prevention of illicit discharge.

Goal – Antrim Township has a program for the detection, elimination, and prevention of illicit discharge. The program includes the following:

1. Identifying areas with the highest level of potential illicit discharges, spills or contamination. This list is maintained and updated regularly. The Township considers the following as possible priority areas:
 - a. Industrial and commercial properties and parking areas.
 - b. Properties that are located close to impaired waterways or in environmentally sensitive areas.
 - c. Properties that have a history of illicit discharge or illegal dumping.
2. All outfalls in the Township require screening. Inspections are conducted annually. If an outfall is located in a priority area, it will be screened bi-annually. During dry weather screening, samples are taken for testing to determine the discharge sources.
3. Samples are taken when an illicit discharge is discovered. The sample will be tested by the Antrim Township Wastewater Treatment Plant (WWTP). The results of the test should give the Township the information needed to determine the type of pollutant in the water. Knowing the type of pollutant in the water will give us the information needed to track the illicit discharge upstream.
4. After finding the source of illicit discharge, the property owner will be notified to immediately stop the cause of the discharge. If there are continued issues, the Stormwater Ordinance of the Township of Antrim allows for enforcement and legal action to be taken to ensure compliance and discontinuing the discharge. In extreme cases, a cease and desist of all operations can be ordered until improvements are made to ensure no further pollutants are discharged.
5. Antrim Township does not have a combined storm sewer system and should not encounter interactions of stormwater and sewage. The disposal of public and private wastewater is closely monitored.
 - a. The Sewer Chapter in the Township Code requires inspection and pumping of on-lot disposal systems every three years. This requirement ensures that on-lot disposal systems are maintained and not malfunctioning. Antrim Township sub-contracts JWP Environmental Services to inspect on-lot systems in the Township. Service request forms may be submitted if anyone has concerns with their on-lot disposal systems or another property's on-lot disposal systems.
 - b. Public sewer lines and pump stations are inspected by the Township Public Works employees. Sewer lines are videoed to ensure there are no blockages or leaks. All pump stations are inspected daily to ensure proper operation.
6. The Township utilizes easements and Right of Entry regulations to access outfalls and illicit discharges on private property. Most properties created after 2006 have easements or language on the land development plan granting Township access for inspections and emergency repairs if needed. If the location of the outfall or illicit discharge is not covered in a land development plan, we will use the Right of Entry section of the Stormwater Ordinance to gain access to the private property.
7. Antrim Township has a form for outfall inspections. The form is available in paper form and also available to be filled out in a mobile application at the inspection site. The form is modeled after the DEP outfall inspection form. The form includes flows observed (if any), results from screening or testing, corrective action taken, and other information important for the inspection

process. All outfall inspections will be documented and retained in the Township records electronically.

8. The Stormwater Technician receives and follows up on all concerns or complaints with regards to illicit discharge. The public has the option to submit concerns and/or complaints through the website, phone, or in person at the Township office. All submitted concerns and complaints are documented and kept on file electronically. Follow up includes, but is not limited to, calling the individual that filed the concern or complaint, conducting a site inspection, and any corrective action that may need to be taken. This process will be evaluated and updated as necessary.

BMP #2 - Develop and maintain map(s).

Goal – Antrim Township hired Dewberry to collect GPS locations of all outfalls and observation points in the Township. This data is compiled and added to a mapping system known as ESRI. The new maps will be interactive and have the ability to click on each outfall and/or observation point to see more information such as type and condition of the outfall, inspection dates and testing results. The map will include information such as Township boundary, urbanized area boundary, outfall numbers, location, names of surface waters receiving discharge from outfalls, etc. Maps will be maintained and updated as necessary during each year of permit coverage. The data base within the ESRI program will assist in tracking inspections and compiling data for better oversight of the program.

BMP #3 - Develop and maintain map(s) that show the entire Stormwater collection system within permit boundaries.

Goal – Included in the ESRI data base mentioned in BMP#2, will be the availability of the entire Stormwater system. This will include the systems owned by the Township and privately-owned systems.

The Township storm sewer system consists of the Township owned roads, roadside swales, channels and inlets that discharge to private Stormwater ponds or sheet flow onto private property. Antrim Township does not own a storm sewer system.

Antrim Township will be developing and implementing a Stormwater Permit process. This process will give the Township the ability to number and document all Stormwater facilities on private property, track their inspections and better ensure program compliance. During the review of new and re-development for land use permits, the developer/property owner will apply for an application for a Stormwater permit. A Stormwater permit will be required for each Stormwater BMP located on the property. The permit will contain the Stormwater notes, details, specifications and maintenance responsibilities. The permit will further address right of entry for the Township, Township inspections and owner responsibility to reimburse the Township for all costs incurred as a result of a system malfunction.

BMPs on private property that were constructed prior to requiring a Stormwater permit will receive a letter informing owners to contact the Township to obtain a Stormwater permit. The Township will section off properties and the letters will be mailed out in phases. The permit cost will include the fee for inspection of the BMP to ensure functionality and to capture its location using GPS.

BMP #4 - Conduct dry weather screening of outfalls and observation points to evaluate the presence of illicit discharges.

Goal – In addition to the Township inspections, we ensure all reports from the public are investigated. Action is taken as necessary to correct any confirmed illicit discharges. Antrim Township will immediately report to DEP illicit discharge that would endanger users downstream, result in pollution, or damage property.

1. Due to multiple impaired waterways in Antrim Township, outfall and observation point screening will be done on an annual basis for the permit cycle. In areas with past problems or continuous dry weather flows, the Township will inspect the locations bi-annually.
2. If any discharge is observed during inspection, the inspector will inspect the discharge for color, odor, floating solids, scum, and other substances. If any of these characteristics are present, a sample will be taken and tested for the following:
 - pH
 - Conductivity
 - Fecal Coliform Bacteria
 - Heavy Metals
 - Chemical Oxygen Demand (COD)
 - 5-day Biochemical Oxygen Demand (BOD5)
 - Total Suspended Solids (TSS)
 - Total Dissolved Solids (TDS)
 - Oil and Grease
 - Total Residual Chlorine (TRC)
 - Ammonia-Nitrogen
 - Others as deemed necessary

All quality assurance and control procedures will be followed when collecting, transporting and analyzing water samples. The samples will be tested in house through our qualified lab technician at the Antrim Township Wastewater Treatment Plant. The sample results will give us the information to determine if the dry weather flow is illicit and potentially the source of discharge. All sample results will be retained in our ESRI data base and made available for review upon request.

3. All outfall inspections will be properly documented in our ESRI data base. The GPS collector allows for sign off by the inspector electronically. The GPS collector prompts the inspector to complete each field of the form. The data is uploaded to the cloud in real time to our ESRI system, so we are always using the most recent data and creating a history for each outfall.
4. All results of outfall inspections, sampling, and action taken to correct illicit discharges are required to be documented and reported in the Annual MS4 Status Report.
5. If access to an outfall is not safe, the Township will establish an observation point to monitor the outfall at an appropriate location. As required in BMP#2, the observation points will be numbered accordingly.
6. All outfalls are required to be maintained in accordance with BMP #2 of MCM #6. This will ensure the proper Operation and Maintenance of all outfalls and observation points in the Township.

BMP #5 - Enact a Stormwater Management Ordinance to implement and enforce a Stormwater Management Program.

Goal – Antrim Township enacted a Stormwater Ordinance in 2006. This ordinance prohibits non-Stormwater discharges. The ordinance will be updated in 2019 to be consistent with the DEP's 2022

Model Ordinance. Prior to the adoption of the new ordinance, the Township will advertise to the public and solicit input through a public meeting.

Non-Stormwater discharges are prohibited. All modifications or waivers granted to allow such discharge will be provided in writing to DEP accompanying the Annual Report. Antrim Township has not granted modifications or waivers to allow non-Stormwater discharges to date.

BMP #6 - Provide educational outreach to property owners, businesses, employees and municipal employees about the program to detect and eliminate illicit discharge.

Goal – In addition to the public outreach in MCM #1, the Township provides education on Illicit Discharge and Detection.

1. Educational information listed in MCM #1 pertaining to illicit discharge shall be distributed annually. Included in the outreach method is information on how the public can report suspected illicit discharge. Antrim Township has a form for reporting and tracking all complaints filed by the public. The form includes the initial report, the action taken by the Township, the time required to take the action, and the resolution of the report. All reports will be documented and kept on file electronically and tracked on a spreadsheet.
2. The educational outreach tools for illicit discharge are listed in MCM #1. These methods will be designed to encourage and facilitate public reporting and participation illicit discharge elimination. Public Involvement programs are listed in MCM # 2. These same methods are used to involve the public in illicit discharge and detection. Common Waste recycling programs are being considered. This program would include the recycling of waste such as motor oil, antifreeze, pesticides and the like.

Construction Site Stormwater Runoff Control

MCM #4: Construction Site Stormwater Runoff Control

- Best Management Practice #1: The Township may not issue a permit or final approval for parties requiring a National Pollutant Discharge Elimination System (NPDES) permit unless the proposing party has a valid NPDES permit.
- Best Management Practice #2: Township shall notify Pennsylvania Department of Environmental Protection (PADEP) or Franklin County Conservation District (FCCD) within 5 days for permit applications of one acre or more of earth disturbance.
- Best Management Practice #3: Enact, implement, and enforce an ordinance to require the implementation and maintenance of Erosion and Sedimentation (E&S) control BMPs.

Antrim Township has signed a Memorandum of Understanding (MOU) with the (FCCD) to implement and enforce the control of E&S. The FCCD has full jurisdiction to require the installation and maintenance of erosion and sedimentation controls.

The Franklin County Conservation District (FCCD) is committed to providing Antrim Township services relating to erosion and sedimentation control. They review subdivision and land development plans to ensure that during construction sediment stays on the affected property and does not runoff onto roads, streams or Stormwater controls. The FCCD tracks and enforces the National Pollutant Discharge Elimination System (NPDES) Permits and reviews erosion and sedimentation controls for properties disturbing over 5,000 square feet of soil.

Inspections of E&S controls are conducted by the FCCD. Any findings from the inspection shall be corrected within the given time frame. Failure to bring a site into compliance could result in a cease and desist order being placed on the property, the assessment of penalties, and/or other means provided for by law.

The MOU is attached for full disclosure.

BMP #1 - The Township may not issue a permit or final approval for parties requiring a NPDES permit unless the proposing party has a valid NPDES permit.

Goal – Antrim Township works closely with the FCCD to ensures applicants have a valid NPDES permit when proposing or conducting earth disturbance activities that require an NPDES permit under the 25 Pa. Code Chapter 102. All applicants that are disturbing 5,000 sq. ft. or more, must have a signed E&S plan or approval letter from the FCCD before permits will be issued.

BMP #2 - Township shall notify Pennsylvania Department of Environmental Protection (PADEP) or Franklin County Conservation District (FCCD) within 5 days for permit applications of one acre or more of earth disturbance.

Goal – Antrim Township will not accept a permit application for properties disturbing over an acre until a Post Construction Stormwater Management plan (PCSM) and E&S plan is approved by Antrim

Township, FCCD and DEP. The plan is then recorded with the Franklin County Recorder. The permit process may commence after all approvals are obtained.

BMP #3 - Enact, implement, and enforce an ordinance to require the implementation and maintenance of E&S control BMPs

Goal – Antrim Township enacted a Stormwater Ordinance in 2006. Due to changing requirements and improved methods, Chapter 126 will be updated in 2019 to be consistent with the DEP 2022 Model. Chapter 126 requires the implementation of E&S controls and sanctions for non-compliance.

MEMORANDUM OF UNDERSTANDING

between the

FRANKLIN COUNTY CONSERVATION DISTRICT

and the

Township of Antrim, FRANKLIN COUNTY, PENNSYLVANIA

This Memorandum has been prepared jointly and agreed upon by each party for the following purpose:

To serve as a joint commitment by the signatory parties to ensure Best Management Practices (BMPs) are implemented to control accelerated erosion, prevent sediment pollution, maintain, reclaim, and restore water quality to the existing and designated uses of the waters of the Commonwealth for the benefit of the Municipality's citizens and downstream water users.

To serve as a basis for defining the role of each party in the cooperative relationship between the Franklin County Conservation District and Antrim Township, Franklin County, Pennsylvania.


- I. In carrying out the intent of this memorandum, the **Franklin County Conservation District** (District) shall:
 - A. Provide to the Municipality a listing of its plan review fee guidelines and applications. The District will promptly notify the Municipality of any changes in the plan review fee schedule.
 - B. Receive all erosion and sedimentation pollution control (E&SPC) plans as required under **Chapter 125 and 126 of the Code of the Township of Antrim of Pennsylvania** hereinafter referred to as "**Code**" and complete an initial review of the E&SPC plan within 37 business days of its receipt. If needed, reviews of subsequent E&SPC plan submissions (revisions) will be completed within 15 business days of their receipt.
 - C. For National Pollution Discharge Elimination System permits (NPDES) the District will notify the applicant and the Municipality within 10 - 22 business days of receiving an administratively complete application, letter of intent or notice of termination.
 - D. Notify and supply a copy of the approved erosion and sediment control plan to the Municipality if desired. Approval will be determined based on compliance with the requirements of Chapter 102 of the Pennsylvania Clean Streams Law. Notice will be given to the Municipality of all determinations that an E&SPC plan cannot be approved because of the inadequate information and/or failure of the applicant to develop an E&SPC plan in compliance with Chapter 102 of the Clean Streams Law.
 - F. Upon request of the Municipality, provide all applicants with the State's Erosion and Sediment Pollution Control Program Manual and related forms, worksheets, checklists, NPDES permit applications, etc., necessary to successfully prepare an E&SPC plan and apply for the NPDES permit.
 - G. In accordance with a routine inspection schedule and/or upon the request of the municipality, and/or upon receipt of a request from a third party, inspect ongoing earthmoving projects and complete a standard DEP site inspection report. The inspection report shall list any and all violations of the conditions with Chapter 102 of the Clean Streams Law and/or NPDES permit conditions. In conjunction with this responsibility, the district shall:
 - 1) Advise the municipality of all third party complaints. The source of the complaint shall remain anonymous in accordance with the State's Environmental Hearing Board policy.
 - 2) Provide a copy of all inspection reports and related correspondence to the affected earthmover and municipality within 10 calendar days of their completion.
 - 3) Invite the municipality (pending on availability) along on final inspection in order to terminate any NPDES permit.

- G. Serve as the repository for all E&SPC plans, NPDES applications, complaints, inspection reports, correspondence, etc., concerning the conduct of earth moving activities. All such information shall be contained in a dedicated filing system, which shall be available for inspection by municipal officials or by third parties by appointment only.
- H. Commit the necessary staff time, and otherwise provide all information necessary to assist and facilitate the municipality in its conduct of enforcement proceedings as specified in the municipal ordinances.
- I. Conduct inspections in response to complaints regarding earthmoving activities including agricultural plowing and tilling or animal heavy use areas. Copies of the inspection report will be supplied to the municipality within ten (10) days of completion.
- J. Upon receiving a request from the municipal officials, and after appropriate municipal representatives have received the required training, the District will provide technical assistance and financial support, to the limit of its allocation approved by the State Conservation Commission, for the projects qualifying for the **Dirt, Gravel and Low Volume Road Maintenance Program**. The District will provide this service via an agreement with the municipality.
- K. As part of a Delegation Agreement with the State Conservation Commission, the District will review all nutrient management plans submitted under Act 38 (PA Nutrient Management Act), approve those plans that meet Act 38 standards and monitor the implementation of those plans. The District will, upon request, evaluate and determine if an individual animal operation is subject to Act 38. In addition, the District will provide information on EPA's Confined Animal Feeding Operations (CAFO) regulations.
- L. Upon written request by a landowner or operator, the District will provide technical assistance to farm owners and or operators relating to AG E&S plans, manure management plans and nutrient management.
- M. The District will assist municipal officials and citizen groups to form watershed associations for the purpose of addressing local water resource issues on a watershed basis.
- N. Assist with Minimum Control Measure #4 (MCM#4) – Construction Site Storm Water Runoff Control as outlined in **Antrim Township's Individual Permit PA133536**
 - a. The purpose of the written program is to establish clear roles and responsibilities for the implementation of the MCM#4 requirements. An agreement between the permittee, the District and any other resources to be used by the permittee that clearly defines roles for each entity is recommended.
- O. Provide assistance and access to permits in order to facilitate administration, tracking, compliance, and any necessary updates to the Township ordinance in order to be consistent with Chapter 102 requirements.

II. In carrying out the intent of this memorandum, **the Township of Antrim shall:**

- A. Remind all citizens, builders, contractors, developers, and farmers that earth disturbance activities including clearing and grubbing of vegetation and construction for structures, require implementation of erosion and sediment (E&S) control Best Management Practices (BMPs) and may require a written E&S plan and/or NPDES permit.
- B. Create and/or update Subdivision and Land Development ordinances to require erosion and sediment control plans to be registered and approved with the Franklin County Conservation District prior to municipality's final approval of subdivision and land development.
- C. Withhold issuance of any building or other permits for earth disturbance projects involving 5,000 square feet or more, pending written confirmation that the project was reviewed and approved by the District. *Agricultural buildings are **not exempt** from obtaining E&SPC and/or NPDES permits.*

- D. Forward all questions pertaining to the preparation of E&SPC plans, application and fee guidelines to the District.
- E. Encourage animal owners (except for dog & cat owners) to contact the District for information on developing manure management plans as well as AG E&S plans
- F. Confirm with the District that there is a manure management plan or Nutrient Management plan and an AG & ES plan for any new building activity, for any animal operation including non-typical livestock.
- G. When updating stormwater ordinances assure that rate, volume controls as well as looking at the water quality aspects are included.
- H. Forward all third party complaints about ongoing earthmoving projects to the District for inspection.
- I. **Prior to the Municipality's final approval** of any subdivision or land development plan and/or planned residential property; the applicant will be required to provide copies of application, notification and/or permit approval from the appropriate state or federal agencies for obstruction and/or encroachments to any waterway of the Commonwealth.
- J. Upon notification by the District, withhold any grading plan, building, subdivision and land development, etc., permits:
1. When and where it has been determined that an applicant has failed to secure an approved E&SPC plan from the District.
 2. When the applicant has failed to comply with implementation of the approved E&SPC plan.
 3. When the applicant has failed to obtain the proper State and Federal permits.
 4. If the project has been referred to the State for enforcement under the Pennsylvania Clean Streams Law.
- K. Invite the District (pending on availability) along on any township inspections especially prior to any township adoption of utilities, roads, etc. to review E&S controls.
- L. Within 10 working days of receipt of violation notice from the **District** that a site is in continued violation (all deadlines for voluntary compliance have expired), the municipality may, at its discretion, initiate the penalty and enforcement provision specified in the Municipal Ordinance(s). In such instances, the Municipality shall have access to all of the District's documents, findings and actions pertaining to the site that is in continued violation.
- M. Administer the MS4 permit program and all Minimum Control Measures as outlined in the **Township's Individual Permit PA133536** and as required by the Department of Environmental Protection and the Environmental Protection Agency.
- III. This Memorandum of Understanding shall become effective immediately. It shall be reviewed periodically, as the need arises by either/or both parties, and may be amended by mutual consent of both parties. Either party may terminate this MOU at any time, following a 30-day written notice to the other party.

For the **Township of Antrim**
 (Name) Chairman (Title) 7/23/19 (Date)

For the **FRANKLIN COUNTY CONSERVATION DISTRICT**
Even Burkholder (Name) CHAIRMAN 7-8-2019 (Date)

4. **MCM #4:** Construction Site Stormwater Runoff Control. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.34(b)(4))

The permittee shall implement the BMPs identified below.

- a. **BMP #1:** The permittee may not issue a building or other permit or final approval to those proposing or conducting earth disturbance activities requiring an NPDES permit unless the party proposing the earth disturbance has valid NPDES Permit coverage (i.e., not expired) under 25 Pa. Code Chapter 102.
- b. **BMP #2:** A municipality or county which issues building or other permits shall notify DEP or the applicable county conservation district (CCD) within 5 days of the receipt of an application for a permit involving an earth disturbance activity consisting of one acre or more, in accordance with 25 Pa. Code § 102.42.
- c. **BMP #3:** Enact, implement and enforce an ordinance or SOP to require the implementation and maintenance of E&S control BMPs, including sanctions for non-compliance, as applicable.
 - (1) Municipal permittees shall enact, implement, and enforce an ordinance to require the implementation of E&S control BMPs, including sanctions for non-compliance. All municipal permittees shall submit a copy of an ordinance that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) as an attachment to an Annual MS4 Status Report by September 30, 2022 (existing permittees) or the fourth (4th) Annual MS4 Status Report following issuance of this permit (new permittees).
 - (2) Permittees that lack the authority to enact ordinances shall develop, implement and enforce an SOP to require the implementation and maintenance of E&S control BMPs by September 30, 2022 (existing permittees) or the first Annual MS4 Status Report following approval of coverage under this Permit (new permittees).

Post-Construction Stormwater Management (PCSM) in New Development and Redevelopment

MCM #5: Post-Construction Stormwater Management (PCSM) in New Development and Redevelopment

- Best Management Practice #1: Enact, implement, and enforce an ordinance to require Post-Construction Stormwater Management (PCSM) from new development and redevelopment projects.
- Best Management Practice #2: Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new development and redevelopment. Measures should be taken to retrofit LID into existing development.
- Best Management Practice #3: Ensure adequate Operations and Maintenance (O&M) of all PCSM BMPs that have been installed at development and redevelopment projects that disturb one acre or more. This includes projects less than one acre that are part of a larger common plan.

Post-Construction Stormwater Management Controls (PCSM) are required for all new development or re-development in Antrim Township. The purpose of PCSM controls are to assess the pre-development flow rate of stormwater before development and control the stormwater on site to be at the same rate or less than that rate after construction. This is done by infiltrating as much water as possible back into the ground to replenish our groundwater to promote healthy wells and to protect our surface waters from contaminated stormwater runoff.

PCSM plans are submitted by the property owner and/or their engineer before subdivision or land development plans are approved. The Township engineer reviews the proposed controls and offers comments. A subdivision plan, a land development plan, nor a land use permit may be issued if PCSM controls have not been approved. All PCSM controls shall be reviewed for compliance with the Code of the Township of Antrim Chapter 126 entitled "Stormwater" and approved by FCCD, DEP and the Antrim Township Board of Supervisors.

The approved Stormwater system must be constructed per the approved plan as recorded with the Franklin County Recorder. The location for the Stormwater control shall be protected from construction operations. Antrim Township conducts inspections of the installation of the system. After the system is constructed, as built drawings are submitted to the Township certifying the controls were constructed per the plan and that they will operate as planned.

The property owner is responsible for the on-going inspection and maintenance of the system. They must inspect the system regularly and after every significant rain event.

Antrim Township may inspect all PCSM controls to ensure compliance. At a minimum, the Township will conduct inspections once annually for the first three years and then once every three years after that.

BMP #1 - Enact, implement, and enforce an ordinance to require Post-Construction Stormwater Management (PCSM) from new development and redevelopment projects.

Goal – Antrim Township enacted our current Stormwater Ordinance in 2006. Due to changing requirements and improved stormwater technology, Chapter 126 will be updated in 2019 to be

consistent with the DEP 2022 Model Ordinance. Chapter 126 requires the implementation of PCSM BMPs and sanctions for non-compliance.

BMP #2 - Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new development and redevelopment.

Goal – Antrim Township has and will continue to encourage use of LID in new development and redevelopment. Through the update to the Stormwater Ordinance in 2019, it is a requirement to use LID practices consistent with DEPs MS4 website.

Our goal as a Township is to keep looking for new and improved ways to be compliant with use of LID. We will be researching the use of natural BMPs and stream bank restoration as a requirement during construction.

BMP #3 - Ensure adequate O&M of all Post-Construction Stormwater Management (PCSM) BMPs.

Goal – Currently, Antrim Township has record of all PCSM BMPs that were installed since 2003. The BMPs are documented in land development plans. The subdivisions and/or lots disturbing more than 1 acre are logged in an excel spreadsheet. An electronic interactive mapped inventory is being created for all BMPs within the ESRI system. The inventory list in the ESRI system will contain the exact location of all BMPs collected using GPS units, owner information, entity responsible for O&M, type of BMP, year it was installed, and all inspection records. The Township will ensure proper O&M is performed by completing inspections on all BMPs within the Township. The inspections will be documented and kept on file electronically. The records are available for review upon request.

In addition to the current list, Antrim Township will be adding BMPs installed before 2003 to the inventory list. To add previously installed BMPs and update the current list, Antrim Township will have a permit process. The Township will send out letters to property owners with BMPs built before 2003. The letter will inform the owner that a permit is required for the BMP(s) on their property. The initial permit fee will cover the cost of data collection (such as exact location) and inspection (type of BMP, proper installation and O&M requirements). The permit will be stored in a data base and used for tracking of inspections and O&M activities performed.

Pollution Prevention / Good Housekeeping

MCM #6: Pollution Prevention / Good Housekeeping

- Best Management Practice #1: Identify and document all operations that are owned or operated by the Township and have the potential for generating pollution in Stormwater runoff to MS4.
- Best Management Practice #2: Develop, implement, and maintain a written O&M program for all operations that could contribute to the discharge of pollutants. Include the following:
 - Stress pollution prevention and good housekeeping measures.
 - Contain site-specific information.
 - Management practices, policies, and procedures shall be developed and implemented to reduce or prevent the discharge of pollutants.
 - Maintenance activities, schedules, and inspection procedures to reduce the potential for pollutants contaminating stormwater flows.
 - Controls for reducing or eliminating the discharge of pollutants.
 - Procedures for the proper disposal of waste (including: dredge spoil, accumulated sediments, trash, household hazardous waste, used motor oil, street sweeping and other debris).
- Best Management Practice #3: Develop and implement an employee training program. Must include:
 - Operation,
 - Inspection,
 - Maintenance,
 - Repair activities associated with BMP #1,
 - Training must cover all relevant parts of program that could affect operations.

The Pollution Prevention/Good Housekeeping O&M program for the Township of Antrim, Franklin County, Pennsylvania has been established in accordance with the Township's Municipal Separate Storm Sewer System's (MS4) National Pollutant Discharge Elimination System (NPDES) Individual Permit Number PAI133536 effective July 1, 2018. This program is required for the Township of Antrim to maintain compliance with the Pennsylvania Department of Environmental Protection through the enforcement of the criteria as set forth in our NPDES Permit. This program is subject to an annual review and revisions to maintain compliance with our NPDES Permit and with the PADEP.

The O&M program will include training of employees. The ultimate goal of the program will be preventing and reducing pollutant runoff from operations, facilities and activities owned and operated by the Township.

BMP #1 - Identify and document all operations that are owned or operated by the Township and have the potential for generating pollution in stormwater runoff to MS4.

Goal – Multiple activities and facilities within Antrim Township have the potential to release pollutants into the MS4. Some of the activities will include, but not limited to:

- fleet maintenance,
- landscaping and maintenance at the parks,

- road maintenance,
- snow/ice removal,
- street sweeping.

The following section identifies facilities within the Township that are owned or operated by the Township that have the potential of generating stormwater runoff.

Facility	Address		Facility	Address
Lift Station 1	2221 Buchanan Trail East		Lift Station 17	600 E Baltimore Street
Lift Station 2	12050 Gearhart Rd		Lift Station 19	9109 Willowdale Road
Lift Station 3	10800 Grindstone Hill Road		Lift Station 20	3711 Hazel Drive
Lift Station 5	2350 Buchanan Trail West		Lift Station 21	1180 Jason Drive
Lift Station 6	999 Reid Road		Lift Station 22	8355 Molly Pitcher Highway South
Lift Station 7	15670 Oak Road		Lift Station 23	100 Kauffman Road
Lift Station 8	15433 Ridge Road		Lift Station 24	10311 Lindale Avenue
Lift Station 9	13855 Molly Pitcher Highway South		Lift Station 25	11200 Grant Shook Road
Lift Station 10	14444 Molly Pitcher Highway South		Wastewater Plant	13431 Worleytown Road
Lift Station 11	14888 Maryland Line		Antrim Township Community Park	12315 Grant Shook Road
Lift Station 12	4277 Scar Hill Road/Coseytown Road		Enoch Brown Park	2730 Enoch Brown Road
Lift Station 13	3900 Scar Hill Road		Martin's Mill Bridge Park	3505 West Weaver Road
Lift Station 14	711 S Washington Street		Municipal Building	10655 Antrim Church Road
Lift Station 15	9275 Willowdale Road		Township Roads	See Township Road list
Lift Station 16	22 Hykes Road			

BMP #2 - Develop, implement, and maintain a written O&M program for all operations that could contribute to the discharge of pollutants.

Goal - This section establishes procedures for the operation and maintenance of Township Facilities and Activities that have the ability to discharge pollutants.

Facility or Activity	Action
Street sweeping	Annually or as needed in events of mud or stones enter roadway.
Snow removal	Plowed to side of road – cautious to not block swales or inlets.
Culvert cleaning	Once per month rotation.
Storm sewer maintenance/repairs	Repairs made or stabilize as needed by roadcrew.
Park and open space maintenance	Weekly mowing.
Municipal building maintenance	<ul style="list-style-type: none"> • Weekly mowing. • Plowing as needed in winter months. • Inspect for erosion regularly.
New construction	<ul style="list-style-type: none"> • Implement E&S controls as approved by FCCD. • Stabilize upon completion.
Land disturbances	<ul style="list-style-type: none"> • Implement E&S controls as approved by FCCD. • Stabilize upon completion.
Right of way maintenance	<ul style="list-style-type: none"> • Mow as needed. • Stormwater swales are maintained by property owners. • Road edging. • Stabilize as needed.
Vehicle operation, fueling, washing and maintenance	<ul style="list-style-type: none"> • All vehicle or equipment fluids disposed of or recycled per manufacturer recommendation. • Fueling at gas pumps located at municipal building. • Wash at carwash or in garage with floor drains to the public sewer system. • Any spill or leak is soaked up, swept up and properly disposed of.
Lift Stations	Daily Inspection of all Lift Stations.
Storage of Road Salt	Salt is stored in an enclosed building.

BMP #3 - Develop and implement an employee training program.

Goal - Training programs that promote stormwater awareness are provided to Antrim Township employees. Training goals include:

- Be able to identify stormwater controls and recognize if they are functioning properly.
- To understand what controls are the responsibility of the Township and which controls are to be maintained by private property owners.
- For employees to always be aware of disturbed areas and how to properly stabilize them based on their location.
- For employees to know how to properly install E&S controls during projects that could result in sediment leaving the site.
- All employees need to know who to notify when:
 - stormwater is not being properly managed.
 - flows are present when rain has not occurred.
 - areas of disturbed soil have been located.
 - areas of standing water exist.
- Employees to know the proper handling of equipment and vehicle fluids.
- For all employees to develop an overall daily awareness of stormwater management.

Training may occur in a group or may be completed individually. A record of the training received by each employee shall be documented by noting the date, the type of training received, and what employee attended.

Training may be conducted in house or by a 3rd party agency. The topic for each training session may vary based on the need to accomplish the goals listed above.

Township Road List

<i>Road Name</i>	<i>Development</i>	<i>T- #</i>	<i>R-O-W</i>	<i>Cartway</i>	<i>Ordained</i>
Aaron Hill Road	Preserve @ Greencastle		50'		
Abbey Hill Road	Preserve @ Greencastle		50'		
Acorn Drive	Red Oak Estates		50'	26	
Albert Avenue	Willowdale	501	50'	20	
Allison Drive	Oaks	478	50'	22	1991
Alphin Way	Stoneybrake Village	717	50'	26	
Angle Road		662	50'	18	
Anna Court		467	50'	26	1987
Anna Mae Drive	Tex Myers	512	50'	24	1988
Antrim Church Road		438	33/50'	26/33	
Antrim Commons Drive	Antrim Commons	414			11/22/2011 (in part) - 5/13/2014 (complete)
Antrim Court	Woodlawn	476	50'	22	1991
Antrim Lane	Hartman	462	50'	20	1980
Armada Drive	Antrim Commons	415	80'	32'	11/22/2011
Auburn Drive	Red Oak Estates		50'	26	
Autumnfest Court	Antrim Stonemill Estates	514	50'	26	2008
Avalon	Heritage Estates West Phase I		50'	32	
Baltimore Street East		SR0016			
Banner Alley		Alley			1955
Barr Road		357	33'	18	
Bartrum Avenue	Heritage Estates West Phase III		50'		
Barvinchack Lane		369			
Bemisderfer Road		354	50'	18	2002(P)
Berkshire Drive	Kingsbrook Meadows		50'	26	
Bino Road		SR3004			
Birch Run	Whispering Willows				
Blunt Drive	Blunt Farm		50'		
Boblink Court	Antrim Meadows		50'	26	
Bower Way	Whispering Willows				
Bowman Court	Cherry Hill	466	50'	23	1987
Branch Street	Willowdale	416	50'	18	1990
Brecon Drive	Pembrokeshire		50'	26	
Breezy Bend Way	Shadow Creek Meadows		50'	26'	
Brenda Drive	Brookside Manor	603	50'	20	1969
Brian Drive	Cordell	453	50'	20	1972
Briarbend Way	Shadow Creek Meadows	697	50'	26	11/23/2010
Bristol Drive	Nottingham Meadows	378	50'	26	11/23/2010
Brittany Drive	Heritage Estates West Phase IV		50'		
Brook Street	Willowdale	417	50'	18	1990

Brookview Drive	Moss Spring Estates		50'	33	
Browns Mill Road		SR2001			
Buchanan Trail East		SR0016			
Buchanan Trail West		SR0016			
Buckrun Drive	Melrose Meadows	484	50'	26	
Burkholder Road		443	33/50'	16/24	
Camden Drive	Nottingham Meadows	371	50'	26	portion 11/23/2010
Campion Court	Campion/Century	621	50'	33	1991

<i>Road Name</i>	<i>Development</i>	<i>T- #</i>	<i>R-O-W</i>	<i>Cartway</i>	<i>Ordained</i>
Cannon Drive	Molly Pitcer PRD				
Carey Drive	Eberly	448	50'	18	1985/1991
Carl Circle		659	50'	20	1979
Carol Avenue	Brookside/Melrose Meadows	611	50'	20/26	1969/1979/1985
Castle Hill Road	Preserve @ Greencastle		50'		
Castlegreen Court	Greens of Greencastle	502	50'	20	
Castlegreen Drive	Greens of Greencastle	503	50'	20/26	
Cedarbrook Drive	Cedarbrook	316	50'	32	2/9/2016
Center Avenue	Friendship Village	446			
Charlotte Court	Rolling Hills	709	50'	26	7/28/2009
Chloe Circle	Towns on Hykes		50'	26	
Choxes Chase	Stoneybrake Village	490	50'	20	2001
Clare Court	Greens of Greencastle	711	50'	26	
Clayhill Road		SR2016			
Clearview Avenue		339	33'	24	1954
Clipp Court	Grosh Mobile Home Park	331	50'	30	
Cobble Drive	Nottingham Meadows	373	50'	26	11/23/2010
Coldsmith Road		430	33'	16	
Coldwater Crossing	Shadow Creek Meadows		50'	26	
Colonial Drive	Greenway	429	50'	22	1984
Commerce Avenue		419	50'	20	1984
Community Center Lane	(Private)	Private			
Conococheague Lane	(Private)	Private			
Conwy Place	Pembrokeshire		50'	26	
Corbin Drive	Molly Pitcer PRD		50	32	
Corporal Rihl Lane		706	60'	26	
Coseytown Road		343	33'	18	
Countryside Drive	Countryside Acres	657	50'	20	1977
Craig Road		465	33'	16	
Creekwood Drive	Creekwood	360	50'	26	2007
Cresap Avenue		353	36/33'	20	
Cross Hill Road	Preserve @ Greencastle		50'		

Cydney's Lane	Rolling Hills		50'	26	
Dallas Drive	Shadow Creek Meadows	692	50'	32	portion 11/23/2010
Daybreak Lane	Antrim Meadows	382	50'	26	10/25/2016
Delanie Drive	Heritage Estates West Phase I		50'	32	
Dianne Drive	Ron Gene Ridge Road		50'	26	10/30/2017
Divinity Drive	Heritage Estates West Phase I		50'	26/32	
Donovan Drive	Garden Ridge Acres	627	50'	20	1991
Dresden Circle	Nottingham Meadows	380	50'	26	11/23/2010
Dylan Drive	Pembrokeshire		50'	26	
East Avenue		SR2004			
East Pebblebrook Drive	Shadow Creek Meadows	695	50'	26	11/23/2010
East Side Drive	Oaks	420	50'	22	1960
Ebberts Spring Court	Antrim Commons				
Edwin Street		Alley	16'	16	
Eleah's Crossing	Cedarbrook	314	50'	26	2/9/2016
Emily's Court	Rolling Hills	713	50'	26	
Enoch Brown Road		425	33'	16	

<i>Road Name</i>	<i>Development</i>	<i>T- #</i>	<i>R-O-W</i>	<i>Cartway</i>	<i>Ordained</i>
Eryldeen Lane	(Private)	Private			
Essex Circle	Nottingham Meadows	374	50'	26	11/23/2010
Evans Drive	Pembrokeshire		50'	26	
Executive Boulevard	Augusta Partners LLC		50'	28'	
Farm Lane	Brookside Manor	601	50'	20	1969/1979/1988
Farmall Drive	Melrose Meadows	482	50'	26	
Field View Drive	Moss Spring Estates / Red Oak Estates		50'	32/26	
Filer Road		347	33'	18	
Fletcher Drive	Stouffer	626	50'	20	
Flintshire Lane	Pembrokeshire		50'	26	
Flower Drive	Jerry Martin	700	50'	25	
Forest View Drive	Moss Spring Estates		50'	32	
Fort Stouffer Road		394	33'	18	
Fox View Drive	Stone Bridge Farms		50'		
Frank Road		653	33'	18	
Franklin Court	Woodlawn	479	50'	22	1991
Frederick Drive	John Wayne	471	50'	32	
Freehold Drive	Molly Pitcer PRD		50'	24	
Friendship Village Road		436	33'	16	
Gallo Drive	Heritage Estates West Phase IV		50'		
Gearhart Road		356	50'	18	
Glade Terrace	Cedarbrook	217	50'	32	2/9/2016
Glen Hill Road	Preserve @ Greencastle		50'		

Golf Vista Drive	Greens of Greencastle	506	50'	26	
Grace Hill Road	Preserve @ Greencastle		50'		
Grain Circle	Antrim Stonemill Estates		50'		
Grant Shook Road		348	33/50'	18/22	
Greenmount Road		350	33/50'	18	
Greenview Drive	Greenview Acres	363	50'	40	1961/1985
Greenway Circle	Greenway	469	50'	22	
Grindstone Hill Road		SR2025			
Grindstone Hill Road		705	80'	28/40	
Grosh Drive	Grosh Mobile Home Park	330	50'	40	1985
Grove Meadow Lane	Cedarwood Meadows	694	50'	20	
Guitner Road		SR3015			
Hade Street		374	33'	12	1960
Hade Street East/West		332	33'	24	
Hades Church Road		SR2021			
Hamilton Avenue	Penn Antrim	384	50'	26	1990
Harmony Road	Shady Grove Hills	511	50'	26	
Harold Place	Willowdale	311	50'	20	
Harriet Court	Century Manor	320	50'	30	
Harshman Road		434	33'	18	
Harvest Wagon Way	Antrim Stonemill Estates	513	50'	26	2008
Hayfield Court	Pleasant Walk Estates	698	50'	26	1/26/2016
Hays Drive	Molly Pitcer PRD		50	32	
Hazel Drive	Willowdale	504	50'	20	
Heiple Court	Willowdale	310	50'	20	
Helen's Drive	Melrose Meadows		50'	26	
Heritage Hills Lane	Heritage Hills		50'		

<i>Road Name</i>	<i>Development</i>	<i>T- #</i>	<i>R-O-W</i>	<i>Cartway</i>	<i>Ordained</i>
Hill Road		SR3005			
Hilltop Circle	Greenway	470	50'	22	
Hoffman Road	Garden Ridge Acres	676	33/50'	18	
Hollowell Church Road		386	33/40	20	
Hollowell Church Road		SR2003		20	
Horst Road		SR2020			
Hykes Road		351	33/50'	18/20	1985
Hykes Road East	Cedarbrook	315	50'	32	2/9/2016
Intermodal Avenue	Antrim Commons Business Park	Private	55'	32'	
Jason Drive	Shadow Creek Meadows	693	50'	26	portion 11/23/2010
Jasper Drive North	Paulmark Estates	509	50'	26	2008 in part - 8/13/2013
Jasper Drive South	Antrim Stonemill Estates	508	50'	26	2008

Jefferson Place	Rochester Place		50'		
Jo Ann Drive	Antrim Valley Estates	370	50'	20	1990
John Wayne Drive	John Wayne	358	60'	32	1990
Joy Drive	Antrim Meadows/Hess Development	600/388	50'	20/26	10/25/2016 - 1972
Katie Lane	Ridge Manor	301	50'	20	
Kauffman Avenue		4446	33'		1955
Kauffman Road		SR2016			
Kauffman Road East		SR2016			
Kauffman Street	Kauffman	656	50'	22	1976
Kay Street	Town and Country		50'	33	
Kimberly Drive	Hess Development	606	50'	20	1972
King's Court	Stoneybrake Village	492	50'	20	
Kline Drive	Willowdale	500	50'	20	
Kuhn Road		340	33/50'	19	
Lara's Crossing	Cedarbrook	312	50'	26	2/9/2016
Larry Drive	Cordell	451	50'	20	1972/1977
Lee Drive	Hess Development	604	50'	20/26	
Lee Drive	Antrim Meadows		50'	26'	
Lehman Road		432	33'	14	
Leitersburg Road		SR2002			
Letzburg Road		SR3007			
Lillian Court	Heritage Estates West Phase III		50'		
Lindale Avenue	Rolling Hills	718	50'	26	7/28/2009 in part - 1/22/2013 remainder
Lisa Drive	Brookside Manor	608	50'	20	1978/1979/1988
Little Rock Crossing	Shadow Creek Meadows		50'	26	
Loch Hill Road	Preserve @ Greencastle		50'		
Lockwood Terrace	Keystone Crossings (private)		50'		
Locust Street		336	33'	20/24	1954/1960
Lohman Avenue	Campion/Century	418	50'	33	1989
Long Lane		442	50'	20/24	
Lorford Drive	Eberly	660	50'	20	1980
Luke Avenue	Heritage Estates West Phase II		50'		
Lynn Drive	Hess Development	605	50'	20	1972

Road Name	Development	T- #	R-O-W	Cartway	Ordained
Malissa Drive	Brookside Manor	602	50'	20	1969
Maple Avenue		446	33'	16/20	1955
Margaret Drive	Molly Pitcher PRD				
Marie Court	Heritage Estates West Phase III		50'		

Marion Road		447	33'	19/20	
Marsh Road		368	33'	18	
Martin Road		439	33'	12	
Martinelli Drive	Martinelli (private)	Private	50'		
Maryland Line Road		344	33'	16	
Mason Dixon Road		SR0163			
Mason Dixon Street		334	33'	20	
Mason Road		458	33'	16	
Mayfield Court			50'	26	
McCauley Drive	Molly Pitcher PRD				
McClanahan Road		440	33'	18	
McDowell Road		385	33'	18	
Melody Road	Shady Grove Hills	510	50'	26	
Melrose Avenue	Melrose Meadows	481	50'	26	
Meyers Road		456	33'	14/18	
Mill Street		Alley	33'	16	
Milnor Road		SR3006			
Molly Pitcher Highway North		SR0011			
Molly Pitcher Highway South		SR0011			
Monmouth Drive	Molly Pitcher PRD		50	24	
Moonlight Drive	Heritage Estates	707	50'	34	2007
Morgan Court	Rolling Hills		50'	26	
Moss Springs Avenue	Moss Spring Estates		50'	40	
Mountain Laurel Lane		620	50'	26	1991
Mountain View Drive		335	33'	20	
Murray Road		454	33'	20	
Nancy Avenue	Brookside Manor	610	50'	20	1978
Nathan Lane	Heritage Hills		50'		
Nicole Drive	Shadow Creek Meadows	714	50'	26	
Norwalk Drive	Keystone Crossings (private)		50'		
Oak Road	Woodlawn	468	50'	20	
Oak Tree Drive	Woodlawn	459	50'	22	
Oakley Lane	Rolling Hills	708	50'	26	7/28/2009
Olive Drive	Country Village	625	50'	20	
Orenda Drive	Keggereis	449	50'	20	
Osborne Avenue	Campion/Century	619	50'	33	
PA Harry Drive	Eberly	622	50'	20	1991
Pamela Avenue	Heritage Estates West Phase III		50'		
Paradise View Drive	Paradise Estates				
Park Drive		Alley	16'	16	
Patton Bridge Road		427	33'	12	
Paulmark Avenue	Paulmark Estates	507	50'	26	
Penn Dixie Lane	Greenview Acres	365	50'	25	1961

Pennsylvania Avenue North		SR0011			
Pennsylvania Avenue South		SR0011			
Pensing Road		381	33'	26	

<i>Road Name</i>	<i>Development</i>	<i>T- #</i>	<i>R-O- W</i>	<i>Cartway</i>	<i>Ordained</i>
Phillippy Road		455	33'	16/18	
Pikeside Drive	Cedarwood Meadows	505	50'	20/26	
Pine Drive	Patalinghug	364	50'	24	1987
Pitcher Drive	Molly Pitcher PRD		50	24	
Pleasant Waters Road	Paradise Estates				
Preston Lane	Country Village	689	50'	22/26	1990/2007
Proctor Drive	Molly Pitcher PRD				
Prospect Avenue		338	33'	18	1954
Putting Green Court	Greens of Greencastle	719	50'	26	
Queen's Court	Stoneybrake Village	491	50'	20	
Rabbit Road North		342	33'	18	
Rabbit Road South		342	33'	18	
Raeann Drive	Rolling Hills		50'	26	
Randy Drive	Brookside Manor	609	50'	20	1978/1988/1991
Randy Drive Extended	Brookside Manor	609	50'	20	1991
Reagan Drive	Eberly	623	50'	20	1991
Redwood Drive	Woodlawn	461	50'	20/24	1978/1980/1988
Reid Road	Woodlawn	463	33'	18	
Reservoir Road		441	33'	18	
Revolution Drive	Molly Pitcher PRD		50	32	
Rhapsody Road	Shady Grove Hills	512	50'	26	
Ridge Road		352	33'	18	
Ridgeview Drive	Ridgeview Acres	409	50'	22	1978
Roberts Road	Rolling Hills	682	50'	20	1982
Robin Street		Alley	33'	18	
Robinhood Circle	Sherwood Manor	685	50'	26	1989
Rochester Place	Rochester Place		50'		
Rocking M Lane		361	33'	12	
Rocky Fountain Drive	Cedarbrook	319	50'	32	11/15/1996
Rogers Drive	Rolling Hills	684	50'	20	1982
Rolling Hills Drive	Rolling Hills	712	50'	26	7/28/2009
Rosanne Drive	Pembrokeshire		50'	26	
Rosebud Drive	Country Farm Estates	703	50'	26	
Rossboro Court	Heritage Estates West Phase II		50'		
Rossi Drive	Heritage Estates West Phase I		50'		
Rudd Lane	Pembrokeshire		50'	26	
Ruritan Drive	Kauffman	655	50'	22	1982
Rutherford Drive	Nottingham Meadows	376	50'	26	11/23/2010

Ryan Lane	Woodlawn	431	50'	24	1987
Samatha Drive	Heritage Estates West Phase II		50'		
Sandy Circle	Cordell	452	50'	20	1972
Sarah Susan Lane	Sarah Susan Hykes Estate	701	50'	20	
Scarhill Road		321	33'	18/12	
Scarlet Circle	Red Oak Estates		50'	26	
Scenic View Drive		345	50'	20	1985
Sergeant Drive	Molly Pitcer PRD		50	32	
Shane Drive	State Line Mobile Home Park	687	50'	22	1988
Shanks Church Road		349	33'	18	
Shannon Drive North	Greens of Greencastle	407	50'	24	2007
Shannon Drive South	Greens of Greencastle		50'	26	

<i>Road Name</i>	<i>Development</i>	<i>T- #</i>	<i>R-O-W</i>	<i>Cartway</i>	<i>Ordained</i>
Sheeley Drive	State Line Mobile Home Park	688	50'	22	1988
Sheller Road		450	33'	18	
Sherwood Drive	Sherwood Manor	661	50'	20	1987/1989
Shinham Road		424	33'	16	
Shook Court	Melrose Meadows (Private)	Private	50'	26	
Skyline Drive		658	50'	20	1976
Sleepy Horse Lane	Antrim Meadows		50'	26	
Slothour Road		457	33'	18	
Snyder Avenue		435	33'	12	
South Allison Street	Oaks	428	50'	20	1960
South Antrim Way		SR0011			
South Antrim Way		SR0011			
South Washington Street		SR2001			
South Wind Circle	Antrim Meadows		50'	26	
Spangler Lane		Alley	33'	18	
Spigler Street		Alley	33'	16	
Sportsman Road		423	33'	18	
Spring Brook Way	Shadow Creek Meadows		50'	26	
Spring Haven Drive	Whispering Willows				
State Line Road		710	33'	18	
State Line Road		SR2004		18	
Statler Road		433	33'	16	
Stone Bridge Road		SR3013			
Stone Ridge Drive	Cedarbrook	318	50'	32	11/15/1996
Strite Road		444	33'	16	
Stull Road		683	33/50'	24	
Sunbeam Place	Antrim Meadows	383	50'	26	10/25/2016
Talhelm Road		445	33'	16	
Talhelm Street		372	33'	20	

Tall Cedar Lane	Cedarview Estates	691	50'	28	
Teresa Court	Heritage Estates West Phase II		50'		
Thomas Drive	Pembrokeshire		50'	26	
Timothy Drive	Sarah Susan Hykes Estate	702	50'	20	
Tom's Lane	Melrose Meadows		50'	26	
Tower Drive	Woodlawn	475	50'	22	1991
Tranquil Way	Antrim Meadows	379	50'	26	10/25/2016
Trenton Drive	Molly Pitcer PRD				
Trolley Road		346	33'	18	
Twin Drive	Eberly	480	50'	22	1991
Valley View Lane	Eberly (Private)	Private	40'	20	
Victoria Drive	Sherwood Manor	686	50'	26	1989
Violet Drive	Country Farms /Heritage Hills	704	50'	26	
Vivian Avenue	Heritage Estates West Phase I		50'		
Volunteer Drive	Molly Pitcer PRD		50	32	
Wagon Wheel Way	Antrim Stonemill Estates		50'		
Walnut Loop	Greenview Acres	367	50'	20	1961/1985
Walnut Street		337	33'	20	1954
Walter Avenue	Heritage Hills/Heritage Estates		60'	44	2007
Washington Court	Woodlawn	477	50'	22	1991
Waxwing Drive	Cedarview Estates	690	50'	28	

Road Name	Development	T- #	R-O-W	Cartway	Ordained
Waynecastle Road		SR2014			
Weaver Road		341	33'	18/19	
Webling Circle	Melrose Meadows	426	50'	24	2007
Wedgewood Drive	Nottingham Meadows	375	50'	26	portion11/23/2010
Welsh Way	Pembrokeshire		50'	26	
West Avenue	Willowdale	607	50'	24	1972
West Highland Court	Paulmark Estates	715	50'	26	
West Road	State Line	333	33'	24	
Westview Circle	Westview	366	50'	24	1961
Whispering Springs Drive	Whispering Springs	716	50'	26	
White Horse Court North	Stone Bridge Farms		50'		
White Horse Court South	Stone Bridge Farms		50'		
Williamson Road		SR3002			
Williamsport Pike		SR3001			
Williamsport Pike (old)		369	33	16	2008
Willowdale Road		422	33'	18	1985
Wingerton Road		355	33'	18	

Woodland Parkway	Woodland Park (in State Line)	464	50'	20	
Worleytown Road		SR3005			
Young Road North		359	33'	16	
Young Road South		359	33'	18	
Zarger Road		437	33'	18	

Black - Existing Township Roads

Green - Approved Road Names that are reserved, but not constructed

Red - constructed, but not dedicated