

**TOWNSHIP OF HOPEWELL  
MERCER COUNTY, NEW JERSEY**

**ORDINANCE NO. 24-1830**

**AN ORDINANCE OF THE TOWNSHIP OF HOPEWELL AMENDING THE CODE  
OF THE TOWNSHIP OF HOPEWELL TO REPEAL SECTION 17-82; TO ADOPT A  
NEW SECTION 17-82, AND PROVIDING FOR SEVERABILITY AND AN  
EFFECTIVE DATE**

**WHEREAS**, the Township of Hopewell recognizes the importance of proper stormwater management to maintain the integrity of the waters of the State of New Jersey; and

**WHEREAS**, the Township of Hopewell recognizes that regulating and mitigating stormwater impacts from development within the municipality advances public health, safety and welfare and benefits the entire community; and

**WHEREAS**, on July 17, 2023, the New Jersey Department of Environmental Protection (“NJDEP”) amended the Stormwater Management Rules, N.J.A.C. 7-8; and

**WHEREAS**, the Township of Hopewell is required to maintain minimum standards for stormwater pollution prevention as part of its municipal stormwater General Permit issued by the NJDEP; and

**WHEREAS**, the new rules require local municipalities to revise their existing stormwater control ordinance by July 17, 2024 to meet the new NJDEP standards and requirements; and

**WHEREAS**, the Township of Hopewell has, in consultation with its staff and professionals, created a local stormwater control ordinance that is fair, practical and in the best interests of the public.

**NOW, THEREFORE, BE IT ORDAINED AND ESTABLISHED** by the Township Committee of the Township of Hopewell, County of Mercer, State of New Jersey that Section 17-82, entitled Stormwater Control, contained within Article VI of the Design Standards in Chapter 17 (Land Use and Development) of the Code of the Township of Hopewell hereby be repealed and replaced with the revised ordinance section as follows:

## **SECTION I.**

Repeal and replace Section 17-82 - Stormwater Control with the following section:

### **Section 17-82 Stormwater Control**

#### **17-82.1. Scope and Purpose:**

A. Policy Statement

Flood control, groundwater recharge, and pollutant reduction shall be achieved through the use of stormwater management measures, including green infrastructure Best Management Practices (GI BMPs) and nonstructural stormwater management strategies. GI BMPs and low impact development (LID) should be utilized to meet the goal of maintaining natural hydrology to reduce stormwater runoff volume, reduce erosion, encourage infiltration and groundwater recharge, and reduce pollution. GI BMPs and LID should be developed based upon physical site conditions and the origin, nature and the anticipated quantity, or amount, of potential pollutants. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for water quality, quantity, and groundwater recharge.

B. Purpose

The purpose of this ordinance is to establish minimum stormwater management requirements and controls for "major development," as defined below in 17-82.2.

C. Applicability

1. This ordinance shall be applicable to the following major developments:

- a. Non-residential major developments; and
- b. Aspects of residential major developments that are not pre-empted by the Residential Site Improvement Standards at N.J.A.C. 5:21.

2. This ordinance shall also be applicable to all major developments undertaken by the Township of Hopewell.

3. An application required by ordinance pursuant to C.1 above that has been submitted prior to July 15, 2024 shall be subject to the stormwater management requirements in effect on July 14, 2024.

4. An application required by ordinance for approval pursuant to C.1 above that has been submitted on or after March 2, 2021, but prior to July 15, 2024 shall be subject to the stormwater management requirements in effect on July 14, 2024.

5. Notwithstanding any rule to the contrary, a major development for any public roadway or railroad project conducted by a public transportation entity that has determined a preferred alternative or reached an equivalent milestone before July 17, 2023, shall be subject to the stormwater management requirements in effect prior to July 17, 2023.

D. Compatibility with Other Permit and Ordinance Requirements

Development approvals issued pursuant to this ordinance are to be considered an integral part of development approvals and do not relieve the applicant of the

responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act, or ordinance. In their interpretation and application, the provisions of this ordinance shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare.

This ordinance is not intended to interfere with, abrogate, or annul any other ordinances, rule or regulation, statute, or other provision of law except that, where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, the more restrictive provisions or higher standards shall control.

#### **17-82.2. Definitions:**

For the purpose of this ordinance, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this Chapter clearly demonstrates a different meaning. The word "shall" is always mandatory and not merely directory.

"CAFRA Centers, Cores or Nodes" means those areas with boundaries incorporated by reference or revised by the Department in accordance with N.J.A.C. 7:7-13.16.

"CAFRA Planning Map" means the map used by the Department to identify the location of Coastal Planning Areas, CAFRA centers, CAFRA cores, and CAFRA nodes. The CAFRA Planning Map is available on the Department's Geographic Information System (GIS).

"Community basin" means an infiltration system, sand filter designed to infiltrate, standard constructed wetland, or wet pond, established in accordance with N.J.A.C. 7:8-4.2(c)14, that is designed and constructed in accordance with the New Jersey Stormwater Best Management Practices Manual, or an alternate design, approved in accordance with N.J.A.C. 7:8-5.2(g), for an infiltration system, sand filter designed to infiltrate, standard constructed wetland, or wet pond and that complies with the requirements of this chapter.

"Compaction" means the increase in soil bulk density.

"Contributory drainage area" means the area from which stormwater runoff drains to a stormwater management measure, not including the area of the stormwater management measure itself.

"Core" means a pedestrian-oriented area of commercial and civic uses serving the surrounding municipality, generally including housing and access to public transportation.

"County review agency" means an agency designated by the County Commissioners to review municipal stormwater management plans and implementing ordinance(s). The county review agency may either be:

1. A county planning agency or
2. A county water resource association created under N.J.S.A 58:16A-55.5, if the ordinance or resolution delegates authority to approve, conditionally

approve, or disapprove municipal stormwater management plans and implementing ordinances.

“Department” means the New Jersey Department of Environmental Protection.

“Designated Center” means a State Development and Redevelopment Plan Center as designated by the State Planning Commission such as urban, regional, town, village, or hamlet.

“Design engineer” means a person professionally qualified and duly licensed in New Jersey to perform engineering services that may include, but not necessarily be limited to, development of project requirements, creation and development of project design and preparation of drawings and specifications.

“Development” means the division of a parcel of land into two or more parcels, the construction, reconstruction, conversion, structural alteration, relocation or enlarge-enlargement of any building or structure, any mining excavation or landfill, and any use or change in the use of any building or other structure, or land or extension of use of land, for which permission is required under the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq.

In the case of development of agricultural land, development means: any activity that requires a State permit, any activity reviewed by the County Agricultural Board (CAB) and the State Agricultural Development Committee (SADC), and municipal review of any activity not exempted by the Right to Farm Act , N.J.S.A 4:1C-1 et seq.

“Disturbance” means the placement or reconstruction of impervious surface or motor vehicle surface, or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation. Milling and repaving is not considered disturbance for the purposes of this definition.

“Drainage area” means a geographic area within which stormwater, sediments, or dissolved materials drain to a particular receiving waterbody or to a particular point along a receiving waterbody.

“Environmentally constrained area” means the following areas where the physical alteration of the land is in some way restricted, either through regulation, easement, deed restriction or ownership such as: wetlands, floodplains, threatened and endangered species sites or designated habitats, and parks and preserves. Habitats of endangered or threatened species are identified using the Department's Landscape Project as approved by the Department's Endangered and Nongame Species Program.

“Environmentally critical area” means an area or feature which is of significant environmental value, including but not limited to: stream corridors, natural heritage priority sites, habitats of endangered or threatened species, large areas of contiguous open space or upland forest, steep slopes, and well head protection and groundwater recharge areas. Habitats of endangered or threatened species are identified using the Department's Landscape Project as approved by the Department's Endangered and Nongame Species Program.

"Empowerment Neighborhoods" means neighborhoods designated by the Urban Coordinating Council "in consultation and conjunction with" the New Jersey Redevelopment Authority pursuant to N.J.S.A 55:19-69.

"Erosion" means the detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

"Green infrastructure" means a stormwater management measure that manages stormwater close to its source by:

1. Treating stormwater runoff through infiltration into subsoil;
2. Treating stormwater runoff through filtration by vegetation or soil; or
3. Storing stormwater runoff for reuse.

"HUC 14" or "hydrologic unit code 14" means an area within which water drains to a particular receiving surface water body, also known as a subwatershed, which is identified by a 14-digit hydrologic unit boundary designation, delineated within New Jersey by the United States Geological Survey.

"Impervious surface" means a surface that has been covered with a layer of material so that it is highly resistant to infiltration by water.

"Infiltration" is the process by which water seeps into the soil from precipitation.

"Lead planning agency" means one or more public entities having stormwater management planning authority designated by the regional stormwater management planning committee pursuant to N.J.A.C. 7:8-3.2, that serves as the primary representative of the committee.

"Major development" means an individual "development," as well as multiple developments that individually or collectively result in:

1. The disturbance of one or more acres of land since February 2, 2004;
2. The creation of one-quarter acre or more of "regulated impervious surface" since February 2, 2004;
3. The creation of one-quarter acre or more of "regulated motor vehicle surface" since March 2, 2021; or
4. A combination of 2 and 3 above that totals an area of one-quarter acre or more. The same surface shall not be counted twice when determining if the combination area equals one-quarter acre or more.

Major development includes all developments that are part of a common plan of development or sale (for example, phased residential development) that collectively or individually meet any one or more of paragraphs 1, 2, 3, or 4 above. Projects undertaken by any government agency that otherwise meet the definition of "major development" but which do not require approval under the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., are also considered "major development."

"Minor Development" means all development that does not meet the definition of a major development and meets one or more of the following criteria:



1. Any development that requires a "C" variance pursuant to N.J.S.A. 40:55D-70c to exceed the maximum lot coverage permitted within the applicable zoning district.
2. Any development that requires a "D" variance pursuant to N.J.S.A. 40:55D-70d to exceed the maximum lot coverage permitted within the applicable zoning district.
3. Any development that results in an increase in regulated motor vehicle surface of greater than 250 square feet for residential development or 1,000 square feet for commercial development.
4. Increases in regulated motor vehicle surface in excess of the limits established under subsection 3 above shall be applicable to all development, including those that are compliant with the total lot coverage permitted within the applicable zoning district.

"Motor vehicle" means land vehicles propelled other than by muscular power, such as automobiles, motorcycles, autocycles, and low speed vehicles. For the purposes of this definition, motor vehicle does not include farm equipment, snowmobiles, all-terrain vehicles, motorized wheelchairs, go-carts, gas buggies, golf carts, ski-slope grooming machines, or vehicles that run only on rails or tracks.

"Motor vehicle surface" means any pervious or impervious surface that is intended to be used by "motor vehicles" and/or aircraft, and is directly exposed to precipitation including, but not limited to, driveways, parking areas, parking garages, roads, race-tracks, and runways.

"Municipality" means any city, borough, town, township, or village.

"New Jersey Stormwater Best Management Practices (BMP) Manual" or "BMP Manual" means the manual maintained by the Department providing, in part, design specifications, removal rates, calculation methods, and soil testing procedures approved by the Department as being capable of contributing to the achievement of the stormwater management standards specified in this chapter. The BMP Manual is periodically amended by the Department as necessary to provide design specifications on additional best management practices and new information on already included practices reflecting the best available current information regarding the particular practice and the Department's determination as to the ability of that best management practice to contribute to compliance with the standards contained in this chapter. Alternative stormwater management measures, removal rates, or calculation methods may be utilized, subject to any limitations specified in this chapter, provided the design engineer demonstrates to the municipality, in accordance with this ordinance and N.J.A.C. 7:8-5.2(g), that the proposed measure and its design will contribute to achievement of the design and performance standards established by this chapter.

"Node" means an area designated by the State Planning Commission concentrating facilities and activities which are not organized in a compact form.

"Nutrient" means a chemical element or compound, such as nitrogen or phosphorus, which is essential to and promotes the development of organisms.

"Person" means any individual, corporation, company, partnership, firm, association, political subdivision of this State and any state, interstate or Federal agency.

"Pollutant" means any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, medical wastes, radioactive substance (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. §§ 2011 *et seq.*)), thermal waste, wrecked or discarded equipment, rock, sand, cellar dirt, industrial, municipal, agricultural, and construction waste or runoff, or other residue discharged directly or indirectly to the land, ground waters or surface waters of the State, or to a domestic treatment works. "Pollutant" includes both hazardous and nonhazardous pollutants.

"Public roadway or railroad" means a pathway for use by motor vehicles or trains that is intended for public use and is constructed by, or on behalf of, a public transportation entity. A public roadway or railroad does not include a roadway or railroad constructed as part of a private development, regardless of whether the roadway or railroad is ultimately to be dedicated to and/or maintained by a governmental entity.

"Public transportation entity" means a Federal, State, county, or municipal government, an independent State authority, or a statutorily authorized public-private partnership program pursuant to P.L. 2018, c. 90 (N.J.S.A. 40A:11-52 *et seq.*), that performs a public roadway or railroad project that includes new construction, expansion, reconstruction, or improvement of a public roadway or railroad.

"Recharge" means the amount of water from precipitation that infiltrates into the ground and is not evapotranspired.

"Regulated impervious surface" means any of the following, alone or in combination:

1. A net increase of impervious surface;
2. The total area of impervious surface collected by a new stormwater conveyance system (for the purpose of this definition, a "new stormwater conveyance system" is a stormwater conveyance system that is constructed where one did not exist immediately prior to its construction or an existing system for which a new discharge location is created);
3. The total area of impervious surface proposed to be newly collected by an existing stormwater conveyance system; and/or
4. The total area of impervious surface collected by an existing stormwater conveyance system where the capacity of that conveyance system is increased.

"Regulated motor vehicle surface" means any of the following, alone or in combination:

1. The total area of motor vehicle surface that is currently receiving water;
2. A net increase in motor vehicle surface; and/or

quality treatment either by vegetation or soil, by an existing stormwater management measure, or by treatment at a wastewater treatment plant, where the water quality treatment will be modified or removed.

3. Any conversion of motor vehicle surface from a pervious or semipervious surface, such as gravel, to an impervious surface, such as asphalt, concrete or pavers.

"Sediment" means solid material, mineral or organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water or gravity as a product of erosion.

"Site" means the lot or lots upon which a major development is to occur or has occurred.

"Soil" means all unconsolidated mineral and organic material of any origin.

"State Development and Redevelopment Plan Metropolitan Planning Area (PA1)" means an area delineated on the State Plan Policy Map and adopted by the State Planning Commission that is intended to be the focus for much of the State's future redevelopment and revitalization efforts.

"State Plan Policy Map" is defined as the geographic application of the State Development and Redevelopment Plan's goals and statewide policies, and the official map of these goals and policies.

"Stormwater" means water resulting from precipitation (including rain and snow) that runs off the land's surface, is transmitted to the subsurface, or is captured by separate storm sewers or other sewage or drainage facilities, or conveyed by snow removal equipment.

"Stormwater management BMP" means an excavation or embankment and related areas designed to retain stormwater runoff. A stormwater management BMP may either be normally dry (that is, a detention basin or infiltration system), retain water in a permanent pool (a retention basin), or be planted mainly with wetland vegetation (most constructed stormwater wetlands).

"Stormwater management measure" means any practice, technology, process, program, or other method intended to control or reduce stormwater runoff and associated pollutants, or to induce or control the infiltration or groundwater recharge of stormwater or to eliminate illicit or illegal non-stormwater discharges into stormwater conveyances.

"Stormwater runoff" means water flow on the surface of the ground or in storm sewers, resulting from precipitation.

"Stormwater management planning agency" means a public body authorized by legislation to prepare stormwater management plans.

"Stormwater management planning area" means the geographic area for which a stormwater management planning agency is authorized to prepare stormwater



management plans, or a specific portion of that area identified in a stormwater management plan prepared by that agency.

“Urban Enterprise Zones” means a zone designated by the New Jersey Enterprise Zone Authority pursuant to the New Jersey Urban Enterprise Zones Act, N.J.S.A. 52:27H-60 et. seq.

“Urban Redevelopment Area” is defined as previously developed portions of areas:

1. Delineated on the State Plan Policy Map (SPPM) as the Metropolitan Planning Area (PA1), Designated Centers, Cores or Nodes;
2. Designated as CAFRA Centers, Cores or Nodes;
3. Designated as Urban Enterprise Zones; and
4. Designated as Urban Coordinating Council Empowerment Neighborhoods.

“Water control structure” means a structure within, or adjacent to, a water, which intentionally or coincidentally alters the hydraulic capacity, the flood elevation resulting from the two-, 10-, or 100-year storm, flood hazard area limit, and/or floodway limit of the water. Examples of a water control structure may include a bridge, culvert, dam, embankment, ford (if above grade), retaining wall, and weir.

“Waters of the State” means the ocean and its estuaries, all springs, streams, wetlands, and bodies of surface or groundwater, whether natural or artificial, within the boundaries of the State of New Jersey or subject to its jurisdiction.

“Wetlands” or “wetland” means an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

### **17-82.3. Design and Performance Standards for Stormwater Management Measures**

- A. Stormwater management measures for major development shall be designed to provide erosion control, groundwater recharge, stormwater runoff quantity control, and stormwater runoff quality treatment as follows:
  1. The minimum standards for erosion control are those established under the Soil and Sediment Control Act, N.J.S.A. 4:24-39 et seq., and implementing rules at N.J.A.C. 2:90.
  2. The minimum standards for groundwater recharge, stormwater quality, and stormwater runoff quantity shall be met by incorporating green infrastructure.
- B. The standards in this ordinance apply only to new major development and are intended to minimize the impact of stormwater runoff on water quality and water quantity in receiving water bodies and maintain groundwater recharge. The standards do not apply to new major development to the extent that alternative design and performance standards are applicable under a regional stormwater management plan or Water Quality Management Plan adopted in accordance with Department rules.

#### **17-82.4. Minor Development Design Standards**

- A. All construction meeting the definition of "minor development" shall comply with the requirements specified herein.
- B. All construction meeting the definition of "minor development" shall be required to provide groundwater recharge within the same property as the proposed construction.
- C. Soil erosion and sediment control measures shall be installed in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey.
- D. The minimum volume of stormwater required to be recharged shall be calculated as three inches per each square foot of surface area calculated as follows:
  - 1. For all development that complies with the total lot coverage for the applicable zoning district but exceeds the limits for regulated motor vehicle surface, the recharge requirements shall be applied to the surface area in excess of the limits established for minor development (i.e., >250 square feet for residential development, and >1,000 square feet for commercial development).
  - 2. For all development that requires a variance for total lot coverage, pursuant to N.J.S.A. 40:55D-70c or d, the recharge requirements shall be applied to a surface area equal to 120% (1.2 times) the area in excess of the maximum total lot coverage permitted by the applicable zoning district.
- E. The stormwater recharge requirements shall be met using any one or combination of methods permitted in the current Best Management Practices Manual for Green Infrastructure BMPs.
- F. Any alternate methods for achieving the stormwater recharge requirements, not contained within the Best Management Practices Manual, shall be required to provide a detailed design, prepared by a New Jersey State licensed professional engineer.

#### **17-82.5. Major Development Design Standards**

- A. All construction meeting the definition of "major development" shall comply with the requirements specified herein.
- B. All construction meeting the definition of "major development" shall be required to include stormwater management measures designed in accordance with the Residential Site Improvement Standards (RSIS, N.J.A.C. 5:21), and the NJDEP Stormwater Rule (N.J.A.C. 7:8).
- C. Design and performance standards for stormwater management measures shall comply with last amended N.J.A.C. 7:8 and the New Jersey Stormwater BMP Manual, all incorporated herein by reference.
- D. Where the BMP tables in the NJ Stormwater Management Rule are different due to updates or amendments with the tables in this ordinance, the BMP Tables in the Stormwater Management rule at N.J.A.C. 7:8-5.2 shall take precedence.
- E. The standards included herein by reference shall apply to all residential and nonresidential projects; Township projects; Board of Education projects; and other public agency projects meeting the definition of "major development" and subject to review by the Township.
- F. The development shall incorporate a maintenance plan for the stormwater management measures incorporated into the design of a major development in accordance with 17-82.9.
- G. Stormwater management measures shall avoid adverse impacts of concentrated flow on habitat for threatened and endangered species as documented in the Department's Landscape Project or Natural Heritage

- Database established under N.J.S.A. 13:1B-15.147 through 15.150, particularly *Helonias bullata* (swamp pink) and/or *Clemmys muhlnebergi* (bog turtle).
- H. The following linear development projects are exempt from the groundwater recharge, stormwater runoff quality, and stormwater runoff quantity requirements of this section and Minor Development standards of 17-82.4:
1. The construction of an underground utility line provided that the disturbed areas are revegetated upon completion;
  2. The construction of an aboveground utility line provided that the existing conditions are maintained to the maximum extent practicable; and
  3. The construction of a public pedestrian access, such as a sidewalk or trail with a maximum width of 14 feet, provided that the access is made of permeable material.
- I. A waiver from strict compliance from the green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quantity requirements of this section may be obtained for the enlargement of an existing public roadway or railroad; or the construction or enlargement of a public pedestrian access, provided that the following conditions are met:
1. The applicant demonstrates that there is a public need for the project that cannot be accomplished by any other means;
  2. The applicant demonstrates through an alternatives analysis, that through the use of stormwater management measures, the option selected complies with the requirements of this section to the maximum extent practicable;
  3. The applicant demonstrates that, in order to meet the requirements of this section existing structures currently in use, such as homes and buildings, would need to be condemned; and
  4. The applicant demonstrates that it does not own or have other rights to areas, including the potential to obtain through condemnation lands not falling under subsection 3 above within the upstream drainage area of the receiving stream, that would provide additional opportunities to mitigate the requirements of this section that were not achievable onsite.

#### **17-82.6. Solids and Floatable Materials Control Standards:**

- A. Site design features identified under 17-82.5 above, or alternative designs in accordance with 17-82.5.I above, to prevent discharge of trash and debris from drainage systems shall comply with the following standard to control passage of solid and floatable materials through storm drain inlets. For purposes of this paragraph, "solid and floatable materials" means sediment, debris, trash, and other floating, suspended, or settleable solids. For exemptions to this standard see section A.2 below.
1. Design engineers shall use one of the following grates whenever they use a grate in pavement or another ground surface to collect stormwater from that surface into a storm drain or surface water body under that grate:
    - a. The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines; or
    - b. A different grate, if each individual clear space in that grate has an area of no more than seven (7.0) square inches, or is no greater than 0.5 inches across the smallest dimension.

- c. Examples of grates subject to this standard include grates in grate inlets, the grate portion (non-curb-opening portion) of combination inlets, grates on storm sewer manholes, ditch grates, trench grates, and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater system floors used to collect stormwater from the surface into a storm drain or surface water body.
  - d. For curb-opening inlets, including curb-opening inlets in combination inlets, the clear space in that curb opening, or each individual clear space if the curb opening has two or more clear spaces, shall have an area of no more than seven (7.0) square inches, or be no greater than two (2.0) inches across the smallest dimension.
2. The standard in A.1. above does not apply:
- a. Where each individual clear space in the curb opening in existing curb-opening inlet does not have an area of more than nine (9.0) square inches;
  - b. Where the municipality agrees that the standards would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets;
  - c. Where flows from the water quality design storm as specified in N.J.A.C. 7:8 are conveyed through any device (e.g., end of pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed, at a minimum, to prevent delivery of all solid and floatable materials that could not pass through one of the following:
    - i. A rectangular space four and five-eighths (4.625) inches long and one and one-half (1.5) inches wide (this option does not apply for outfall netting facilities); or
    - ii. A bar screen having a bar spacing of 0.5 inches.
  - d. Note that these exemptions do not authorize any infringement of requirements in the Residential Site Improvement Standards for bicycle safe grates in new residential development (N.J.A.C. 5:21-4.18(b)2 and 7.4(b)1).
  - e. Where flows are conveyed through a trash rack that has parallel bars with one-inch (1 inch) spacing between the bars, to the elevation of the Water Quality Design Storm as specified in N.J.A.C. 7:8; or
  - f. Where the New Jersey Department of Environmental Protection determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register listed historic property.

#### **17-82.7. Safety Standards for Stormwater Management Basins:**

- A. This section sets forth requirements to protect public safety through the proper design and operation of stormwater management BMPs. This section applies to any



new stormwater management BMP or existing stormwater management basin modified or altered as part of a major development.

B. Requirements for Trash Racks, Overflow Grates and Escape Provisions

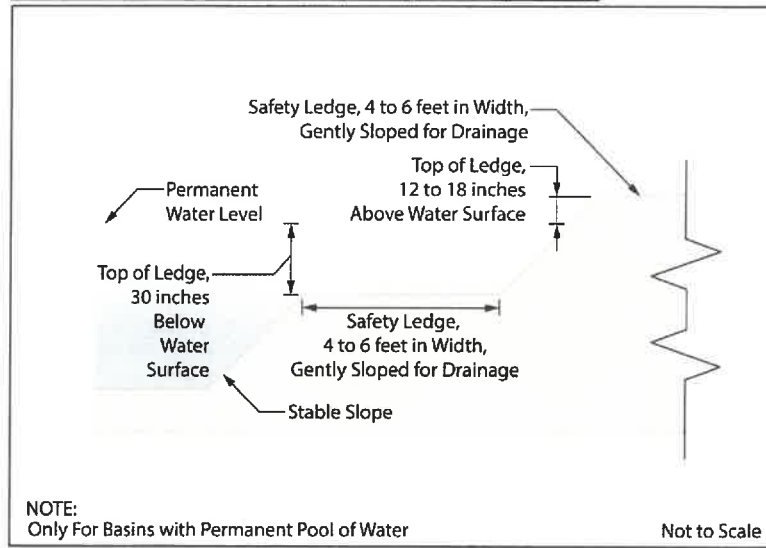
1. A trash rack is a device designed to catch trash and debris and prevent the clogging of outlet structures. Trash racks shall be installed at the intake to the outlet from the Stormwater management BMP to ensure proper functioning of the BMP outlets in accordance with the following:
  - a) The trash rack shall have parallel bars, with no greater than six-inch spacing between the bars;
  - b) The trash rack shall be designed so as not to adversely affect the hydraulic performance of the outlet pipe or structure;
  - c) The average velocity of flow through a clean trash rack is not to exceed 2.5 feet per second under the full range of stage and discharge. Velocity is to be computed on the basis of the net area of opening through the rack; and
  - d) The trash rack shall be constructed of rigid, durable, and corrosion resistant material and designed to withstand a perpendicular live loading of 300 pounds per square foot.
2. An overflow grate is designed to prevent obstruction of the overflow structure. If an outlet structure has an overflow grate, such grate shall meet the following requirements:
  - a) The overflow grate shall be secured to the outlet structure but removable for emergencies and maintenance.
  - b) The overflow grate spacing shall be no greater than two inches across the smallest dimension
  - c) The overflow grate shall be constructed and installed to be rigid, durable, and corrosion resistant, and shall be designed to withstand a perpendicular live loading of 300 pounds per square foot.
3. Stormwater management BMPs shall include escape provisions as follows:
  - a) If a stormwater management BMP has an outlet structure, escape provisions shall be incorporated in or on the structure. Escape provisions include the installation of permanent ladders, steps, rungs, or other features that provide easily accessible means of egress from stormwater management BMPs. With the prior approval of the municipality pursuant to VIII.C, a free-standing outlet structure may be exempted from this requirement;
  - b) Safety ledges shall be constructed on the slopes of all new stormwater management BMPs having a permanent pool of water deeper than two and one-half feet. Safety ledges shall be comprised of two steps. Each step shall be four to six feet in width. One step shall be located approximately two and one-half feet below the permanent water surface, and the second step shall be located one to one and one-half feet above the permanent water surface. See VIII.E for an illustration of safety ledges in a stormwater management BMP; and
  - c) In new stormwater management BMPs, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.

C. Variance or Exemption from Safety Standard

A variance or exemption from the safety standards for stormwater management BMPs may be granted only upon a written finding by the Township Engineer that the variance or exemption will not constitute a threat to public safety.

D. Safety Ledge Illustration

Elevation View –Basin Safety Ledge Configuration



**17-82.8. Requirements for a Site Development Stormwater Plan:**

A. Submission of Site Development Stormwater Plan

1. Whenever an applicant seeks municipal approval of a development subject to this ordinance, the applicant shall submit all of the required components contained in subsection C below.
2. The applicant shall demonstrate that the project meets the standards set forth in this ordinance.
3. The applicant shall submit one hard paper copy and one electronic copy in PDF format on CD/DVD or USB flash drive of the materials listed in subsection C below.

B. Site Development Stormwater Plan Approval

The applicant's Site Development project shall be reviewed as a part of the review process by the municipal board or official from which municipal approval is sought. That municipal board or official shall consult the Township Engineer to determine if all of the checklist requirements have been satisfied and to determine if the project meets the standards set forth in this ordinance.

C. Submission of Site Development Stormwater Plan

The following information shall be required:

1. Topographic Base Map

The reviewing engineer may require upstream tributary drainage system information as necessary. It is recommended that the topographic base map of the site be submitted which extends a minimum of 50 feet beyond the limits of the proposed development, at a scale of 1"=200' or greater, showing 2-foot contour intervals. The map as appropriate may indicate the following: existing surface water drainage, shorelines, steep slopes, soils, erodible soils, perennial or intermittent streams that drain into or upstream of the Category One waters,

wetlands and flood plains along with their appropriate buffer strips, marshlands and other wetlands, pervious or vegetative surfaces, existing man-made structures, roads, bearing and distances of property lines, and significant natural and manmade features not otherwise shown.

2. Environmental Site Analysis

A written and graphic description of the natural and man-made features of the site and its surroundings should be submitted. This description should include a discussion of soil conditions, slopes, wetlands, waterways and vegetation on the site. Particular attention should be given to unique, unusual, or environmentally sensitive features and to those that provide particular opportunities or constraints for development.

3. Project Description and Site Plans

A map (or maps) at the scale of the topographical base map indicating the location of existing and proposed buildings roads, parking areas, utilities, structural facilities for stormwater management and sediment control, and other permanent structures. The map(s) shall also clearly show areas where alterations will occur in the natural terrain and cover, including lawns and other landscaping, and seasonal high groundwater elevations. A written description of the site plan and justification for proposed changes in natural conditions shall also be provided.

4. Land Use Planning and Source Control Plan

This plan shall provide a demonstration of how the goals and standards of 17-82.3 through 17.82.5 are being met. The focus of this plan shall be to describe how the site is being developed to meet the objective of controlling groundwater recharge, stormwater quality and stormwater quantity problems at the source by land management and source controls whenever possible.

5. Stormwater Management Facilities Map

The following information, illustrated on a map of the same scale as the topographic base map, shall be included:

- i. Total area to be disturbed, paved or built upon, proposed surface contours, land area to be occupied by the stormwater management facilities and the type of vegetation thereon, and details of the proposed plan to control and dispose of stormwater.
- ii. Details of all stormwater management facility designs, during and after construction, including discharge provisions, discharge capacity for each outlet at different levels of detention and emergency spillway provisions with maximum discharge capacity of each spillway.

6. Calculations

- i. Comprehensive hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in this ordinance.
- ii. When the proposed stormwater management control measures depend on the hydrologic properties of soils or require certain separation from the seasonal high water table, then a soils report shall be submitted. The soils report shall be based on onsite boring logs or soil pit profiles. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soils present at the location of the control measure.

7. Maintenance and Repair Plan

The design and planning of the stormwater management facility shall meet the maintenance requirements of 17-82.9.

8. Waiver from Submission Requirements

The municipal official or board reviewing an application under this ordinance may, in consultation with the Township's review engineer, waive submission of any of the requirements in section C when it can be demonstrated that the information requested is impossible to obtain or it would create a hardship on the applicant to obtain and its absence will not materially affect the review process.

**17-82.9. Maintenance and Repair:**

A. All major development projects requiring stormwater management shall comply with the requirements of this section.

B. General Maintenance

1. The design engineer shall prepare an operation, maintenance and repair plan (often referred to as "Operations and Maintenance Manual" or "O&M Manual") for the stormwater management measures/facilities incorporated into the design of a development project. The O&M Manual shall contain all of the following:

- a. Specific maintenance tasks, maintenance schedules for each stormwater facility, inspection guidance, repairs and replacement of components, required permits, erosion control, vegetation management, as well as any tasks specific to the type of BMP needed to maintain the functional parameters of the facility as contained in the BMP Manual; and
- b. Cost estimates, including estimated costs of routine inspections, maintenance (e.g., sediment, debris, trash removal), costs to repair structures, costs to replace structures, estimated life span of various cost planning, labor, equipment, materials, and other information related to perpetual upkeep of the stormwater facility; and
- c. The name, address, and telephone number, and any other relevant contact information of the persons responsible for preventative and corrective maintenance (including replacement) and any persons to which the stormwater facilities will be dedicated. If the responsible maintenance party is different than the owner, the owner's information shall be indicated as well; and
- d. Facility location, including block and lot numbers, and (NJ State plane) coordinates; and
- e. Accurate and comprehensive as-built drawings of the site's stormwater management measures and applicable details; and
- f. Copies of the inspection log forms and maintenance reporting sheets.

2. Preventative and corrective maintenance shall be performed to maintain the functional parameters (storage volume, infiltration rates, inflow/outflow capacity, etc.) of the stormwater management measure, including, but not limited to, repairs or replacement to the structure; removal of sediment, debris, or trash; restoration of eroded areas; snow and ice removal; fence repair or replacement; restoration of vegetation; and repair or replacement of non-vegetated linings



- C. Stormwater management facilities cannot be removed or modified without the approval of the Township Engineer and, if applicable, the appropriate land use board of the Township of Hopewell having jurisdiction over the development.
- D. Private Stormwater Facilities
1. If the party responsible for maintenance is not Hopewell Township or another public agency, the stormwater management facilities/measures shall be considered private facilities.
  2. Responsibility for maintenance shall not be assigned or transferred to the owner or tenant of an individual property in a residential development or project, unless such owner or tenant owns or leases the entire residential development or project. The individual property owner may be assigned incidental tasks, such as weeding of a green infrastructure BMP, provided the individual agrees to assume these tasks; however, the individual cannot be legally responsible for all of the maintenance required.
  3. For all private facilities, the maintenance plan, and any future revisions of the maintenance plan, shall be recorded upon the deed of record for each property on which the maintenance described in the maintenance plan must be undertaken following approval by the Township Engineer and Township Attorney.
  4. The party responsible for maintenance of all private facilities, regardless whether the stormwater facility existed before or is created after the adoption of this section, shall perform the following requirements:
    - a. Maintain a detailed log of all preventative and corrective maintenance for the stormwater management measures incorporated into the design of the development, including a record of all inspections and copies of all maintenance-related work; and
    - b. Evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and deed as needed; and
    - c. Document the changes to the Maintenance and Plan and deed and provide copies to the Township Engineer; and
    - d. Submit inspection and maintenance logs to the Hopewell Township Engineer's office annually by March 1 of the following calendar year for any stormwater measure or BMP in accordance with the NJ Pollution Discharge Elimination System requirements of N.J.A.C. 7:14A.
  5. In the event that a privately owned stormwater management facility becomes a danger to public safety or public health, is in need of maintenance and repair, and/or is not functioning properly in the opinion of the Township Engineer, the Township Engineer shall so notify the responsible party in writing. Upon receipt of notice from the Township Engineer, the responsible party shall have 14 calendar days to effectuate maintenance and repair of the facility in a manner that is approved by the Township Engineer. In the case of an emergency where repairs and/or corrective action must take place sooner, the Township Engineer may specify a shorter time frame to correct the eminent safety concern. The Township Engineer may also extend the time allowed for effecting maintenance and repair for good cause.
    - a. If the responsible party fails or refuses to perform such maintenance and repair, Hopewell Township may immediately proceed to complete the required emergency repairs with its own forces and equipment, and/or through contracted companies. The Township Engineer will decide the appropriate measure for corrective action up to, and including, placing the stormwater facility back to its as-designed and/or as-built accepted condition.

- b. The costs and expenses of such maintenance and repair by Hopewell Township shall be billed to the responsible person or owner. Nonpayment by the responsible party or owner may result in placement of a lien on the property.
- c. If the stormwater facility continues to malfunction, the responsible party will be notified, in writing, and will be given a reasonable time frame in which to submit a plan to bring the stormwater facility into compliance with the originally accepted design. If the original design is not available or determined to be appropriate to address the failing condition, the responsible party shall provide an alternate design, prepared by a NJ State licensed professional engineer, to meet current standards. The costs for the design and construction of the corrective measures shall be borne by the owner or responsible party.
- E. Nothing in this section shall preclude Hopewell Township from requiring the posting of guarantees in accordance with N.J.S.A. 40:55D-53.

#### **17-82.10 Ownership of Stormwater Management Facilities.**

- A. For stormwater facilities not dedicated to or not accepted by Hopewell Township:
  - 1. If the maintenance plan identifies a party other than the property owner as having the responsibility for maintenance, the plan shall include documentation of such party's or entity's agreement to assume maintenance of this responsibility, or the owner's obligation to dedicate a stormwater management facility to such party. Evidence of the dedication shall be provided to the Township Engineer.
  - 2. Responsibility for the maintenance of community stormwater management facilities shall not be assigned or transferred to the owner or tenant of an individual property in a residential development or project, unless such owner or tenant owns or leases the entire residential development or project.
  - 3. Responsibility for the maintenance of individual stormwater management facilities may be assigned or transferred to the owner or tenant of an individual property/lot in a residential development if all of the following conditions are met:
    - a. The individual stormwater facilities are situated and fully contained on the residential lot.
    - b. The stormwater facilities are only designed to handle runoff from a structure or improvement on the residential lot where the facility is located or will be constructed.
    - c. The facilities do not control runoff from a public street.
    - d. The maintenance of the individual stormwater management facilities on residential lots are to remain as the lot owners' responsibility. Ownership or maintenance may not be transferred to Hopewell Township.
    - e. The area of the stormwater facility shall be recorded on the deed in metes and bounds. The maintenance obligation shall be recorded as a deed restriction.
    - f. No such facility shall be modified or eliminated following issuance of the initial certificate of occupancy unless the Township of Hopewell permits such modification or elimination through formal action by the Township Committee or Township land use board having jurisdiction over the matter.
    - g. Any existing community stormwater management facility where maintenance or ownership was transferred to an individual residential property owner or required by agreement in accordance with the rules permitted at that time shall remain the responsibility of the owner.
- B. Stormwater management facilities for nonresidential (commercial) developments.

1. Whenever a stormwater management facility is required for a nonresidential development, the stormwater management facility shall be a part of an individual lot owned and maintained by the property owner, or in the case of a business park or other similar complex, part of the common open space owned by a business association. Provisions for long term maintenance of the facility shall be established. No responsibility, maintenance or otherwise, shall be transferred to Hopewell Township.
- C. Stormwater management facilities for multifamily (e.g., apartments or townhouses) developments.
  1. Whenever a stormwater management facility is required for a development approval for a multifamily building, the stormwater management facility shall be a part of the individual lot owned and maintained by the property owner of the development consisting of rental units or a part of the common open space owned by a homeowners' association of a development of for-sale units, and provisions for long term maintenance of the stormwater facility shall be established. No responsibility, maintenance or otherwise, shall be transferred to Hopewell Township.
- D. Stormwater management facilities for conventional, nonclustered development of single-family detached dwellings.
  1. Whenever a stormwater management facility is required in connection with a development approval for any conventional, nonclustered development of single-family detached dwellings, the stormwater facility shall be owned and maintained by a homeowners' association.

#### **17-82.11 Deed Records and Dedications.**

- A. Any stormwater management measure authorized under the municipal stormwater management plan or this section and any revisions thereof shall be reflected in a deed notice recorded in the Mercer County Clerk's office. A form of deed notice shall be submitted to the Township Engineer and Township Attorney for approval prior to filing. The deed notice shall contain a description of the stormwater management measure(s) used to meet the green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards and shall identify the location of the stormwater management measure(s) in NAD 1983 State Plane New Jersey FIPS 2900 US feet or latitude and longitude in decimal degrees. The deed notice shall also include the maintenance plan also required to be recorded upon the deed. Furthermore, access easements shall be provided to Hopewell Township to provide the Township the right, but not obligation, to access the facility. Prior to signing the site plan, subdivision plan, or approving a permit, proof that the above required deed notice has been filed shall be submitted to the municipality. Proof that the required information has been recorded on the deed shall be in the form of a complete electronic or original recorded copy of the document.
- B. A stormwater management measure approved under the municipal stormwater management plan or ordinance may be altered or replaced with the approval of the Township Engineer, if the Township Engineer determines that the proposed alteration or replacement meets the design and performance standards pursuant to this subsection and provides the same level of stormwater management as the previously approved stormwater management measure that is being altered or replaced. If an alteration or replacement is approved, a revised deed notice shall be submitted to the Township Attorney and Township Engineer for review and approval, and subsequently recorded with



the Mercer County Clerk's office. The instrument shall contain a description and location of the stormwater management measure, as well as include the maintenance plan, as noted above. Prior to signing the site plan, subdivision plan, or approving a permit, proof that the required information has been recorded on the deed in the form of a complete electronic or original recorded copy of the document shall be provided.

- C. The approving board may require dedication of easements or deed restrictions along drainage ways, natural water courses, stream corridors, steep slopes and other unique botanical, historical, geological and paleontological areas located therein or adjacent to a proposed development. The easement or deed restriction shall be indicated on the plan and shall be marked on the land by concrete monuments at angle points and or property corners at sufficient locations to enable the dedicated area to be surveyed. In such cases, the approving Board shall consult with the Township Planner and Township Engineer in determining the required shape and size of the easement. The easement or deed restriction shall be in a form approved by the Township Attorney and shall include provisions assuring the following:
  - 1. Preservation of the channel and floodplain of the watercourse, including the right to clean, de-snap and all such work necessary to maintain the shape, slope and water flow of the watercourse.
  - 2. Prohibition of any removal of trees and other cleaning and grading not directly related to the preservation of the channel of a watercourse.
  - 3. Grant of a right to the Township to install and maintain any drainage facilities necessary for the health and safety of the public, if applicable.
  - 4. Right of entry to the Township to install and maintain any drainage facilities therein, if applicable.
- D. Stream corridors shall be preserved by a conservation easement. Stream corridors extend from 50 feet up to 300 feet, depending on classification of the stream, from each bank of permanently flowing streams as these streams are shown on Natural Resource Conservation Service (NRCS) soil maps. If the natural floodplain is greater, the corridor shall extend to the limits of the floodplain. Stream corridors shall also be extended to include contiguous wetlands and slopes over 12% where the toe of the slope is within 20 feet of the wet soils. Within the stream corridor and 20 feet of its edge, natural coverage shall be maintained, no alteration of the natural terrain shall occur, and no structures or impervious surfaces shall be constructed. All roads and utilities, including septic systems, shall be at least 100 feet from stream corridors.
  - 1. Stream corridors as defined in § 17-181 shall be preserved by a conservation easement, which shall specify the prohibited uses and contain the customary provisions for a conservation easement as required by the Township Committee.
- E. Land designated as a flood hazard area shall not be designed for any occupancy nor for any other purpose which may endanger life or property or aggravate the flood hazard. Such land may be considered for yard areas, or other similar uses and shall be preserved by a conservation easement.
- F. In such cases in which an easement extends into a lot for a distance wider than that which is restricted against building by the required yard space regulations of this section, the Planning Board may require the lot to be enlarged to the degree necessary to provide additional building area.
- G. Upon completion of the project and prior to any approval or acceptance of the stormwater facilities, the applicant shall submit electronically to Hopewell Township a record drawing "as-built" of the stormwater facilities as a georeferenced (NJ State Plane coordinates) shapefile or geodatabase, (with all other non-applicable data removed). The file shall contain the size, type and location of each culvert, inlet, green infrastructure, BMP, outfall,



and other features that comprise the drainage and stormwater system. Review and approval of the record drawings shall be a condition of issuance of any Certificate of Occupancy or Certificate of Approval.

#### **17-82.12 Design of Runoff Collection System.**

- A. The design of the stormwater runoff collection system for all residential and commercial construction shall conform to N.J.A.C. 5:21-7.3 except as follows:
1. Minimum pipe size in the surface water drainage system shall be 15 inches in diameter.
  2. High density polyethylene pipe (HDPE) shall not be used in rights-of-way to be dedicated to Hopewell Township, for driveway culverts, or in locations that do not have adequate cover.
  3. Inlet or manhole spacing shall not exceed 400 feet unless otherwise approved by the Township Engineer.
  4. Drainage inlets shall be located on both sides of street at all intersections. Surface runoff in streets shall not exceed six cubic feet per second at the drainage inlet, and surface runoff in parking, loading, and walkway areas shall not exceed three cubic feet per second. Access manholes shall be placed at maximum 500-foot intervals throughout the system and at pipe junctions where there are no drainage inlets. Inlets shall be placed at intervals not exceeding 400 feet.
  5. Storm drain pipes shall be constructed longitudinally along streets and shall cross streets perpendicular to the center line thereof. Pipe shall be located under or behind the curb line with the installation of inlet or manhole structures. Curvilinear alignments, i.e., curved pipe, pipe bends, or tees, wyes, etc., shall not be permitted.
  6. Storm drain pipes shall be the size specified and laid to the exact lines and grades approved by the Township Engineer. Specifications for construction of manholes, inlets, and storm drains shall conform with the New Jersey Department of Transportation 2019 N.J.D.O.T. Standard Specifications for Road and Bridge Construction, as amended or supplemented.
  7. Manhole frames and covers shall be of American-made cast iron conforming to ASTM Specification A-48 Class 30 and be suitable for H-20 loading capacity. All manhole covers in remote areas or areas subject to flooding shall require a locking device. "HOPEWELL TOWNSHIP STORM SEWER" shall be cast integrally in the cover.
  8. All discharge pipes shall terminate with a precast or cast-in-place concrete headwall with or without wingwalls as conditions require. In normal circumstances, a cast-in-place concrete headwall is preferred. Use of other types shall be justified by the designer and approved by the Township Engineer.
- B. Any underground drainage conveyance system outside a street or other public right-of-way shall be accompanied by a fifteen-foot wide (minimum) drainage easement dedicated to the Township and conforming with the lines of such system. Sufficient width shall be provided so as to accommodate maintenance vehicle access.

#### **17-82.13. Penalties:**

Any person(s) who erects, constructs, alters, repairs, converts, maintains, or uses any building, structure or land in violation of this section shall be subject to penalties stipulated in §3-1.

#### **17-82.14. Effective Date:**

This Ordinance shall be in full force and effect from and after its adoption and any publication as required by law.

**Severability.** The various parts, sections, and clauses of this ordinance are hereby declared to be severable. If any part, sentence, paragraph, or clause is adjudged unconstitutional on invalid by a court of competent jurisdiction, the remainder of the Ordinance shall not be affected thereby.


**Repealer.** Any ordinances or parts thereof in conflict with the provisions of this Ordinance are hereby repealed to the extent of such conflict.

Date Introduced: June 10, 2024

Date Advertised: June 14, 2024

Date Adopted: July 15, 2024

  
\_\_\_\_\_  
Courtney Peters-Manning  
Mayor

  
\_\_\_\_\_  
Katherine Fenton-Newman, RMC  
Municipal Clerk