

ORDINANCE NO. 2015- 21

AN ORDINANCE TO AMEND ORDINANCE 2006-25, AS AMENDED, COMMONLY KNOWN AS THE LOWELL STORM WATER MANAGEMENT ORDINANCE

WHEREAS, the Town of Lowell, its Staff, and Consultants have reviewed and recommended various changes in the Town of Lowell Storm Water Management Ordinance; and

WHEREAS, the Town of Lowell, based on those recommendations has conducted a public hearing after due notice as required by law on the proposed amendment; and

WHEREAS, the Town of Lowell, after conducting said public hearing and after due deliberation, has concluded that an amendment to Section 53.203 Performance Criteria for Storm Water Management, and Section 53.204 Storm Water Management Plan Design Criteria is appropriate.

WHEREAS, the Lowell Town Council of the Town of Lowell deems it to be in the best interest of the general health, safety, and welfare of the citizens of the Town to amend Title 5 Public Works of the Lowell Code of Ordinances; and

NOW THEREFORE, BE IT ORDAINED THAT THE LOWELL STORM WATER MANAGEMENT ORDINANCE BE AMENDED AS FOLLOWS:

1. **§ 53.203 is hereby deleted in its entirety and replaced with the following:**

§ 53.203 PERFORMANCE CRITERIA FOR STORM WATER MANAGEMENT

(A) *Performance criteria.* Prior to design, applicants are required to consult with the administering authority to determine if they are subject to additional storm water design requirements. Unless judged by the administering authority to be exempt or granted a waiver, the following performance criteria shall be addressed for storm water management at all sites.

(1) All site designs shall establish storm water management practices to control the peak-flow rates of storm water discharge associated with specified design storms, and to reduce the generation of storm water.

(2) These practices should seek to utilize pervious areas for storm water treatment, and to infiltrate storm water runoff from driveways, sidewalks, rooftops, parking lots, and landscaped areas, to the maximum extent practical, to provide treatment for both water quality and quantity.

(3) Natural topography and land cover features, such as natural swales, natural depressions, native soil-infiltrating capacity, and natural groundwater recharge areas, shall be preserved and used, to the extent possible, to meet the requirements of this section.

(B) Minimum requirements.

(1) Quantity Calculations – estimated.

(a) Design of off-site runoff, on site conveyance network, and street drainage shall meet the minimum requirements set forth in the current edition of the Lowell Town Standards adopted by the Lowell Town Council;

(b) Lot drainage.

1. Minimum Lot grades

- a. Primary lot. The **PRIMARY LOT** is that portion of the lot between the frontage road and the rear face of the residence or building. The minimum grades permissible in the primary lot are as follows:

<i>Type of Grade</i>	<i>Recommended</i>	<i>Minimum</i>
Surface	2%	1%
Lot Line Swale	2%	1%
Cross Lot Swale	1%	0.5%

- b. Secondary lot. The **SECONDARY LOT** is that portion of the lot between the rear property line and the rear face of the residence or building. The minimum grades permissible in the secondary lot are as follows:

<i>Type of Grade</i>	<i>Recommended</i>	<i>Minimum</i>
Surface	1.5%	1%
Lot Line Swale	1%	0.5%
Cross Lot Swale	1%	0.5%
Surface Over Septic Fields	2%	1%

2. Common swales.

- a. A **COMMON SWALE** is one that serves as a drainage course, carrying the runoff from two or more lots or properties. (Side lot line swales may be excepted from this requirement.)

- (2) *Quality calculations - actual: storm water quality requirements (treatment of the WQ_v upon development completion).* The **WATER QUALITY VOLUME** is the storage needed to capture and treat the runoff from the first inch of rainfall. In numerical terms, it is equivalent to an inch of rainfall multiplied by the volumetric runoff coefficient (R_v) and the site area.

- (a) The following equation is used to calculate WQ_v (in acre-feet):

$$WQ_v = \frac{(P)(R_v)(A)}{12}$$

where:

WQ_v = water quality volume (acre-feet)

P = one inch of rainfall

R_v = 0.05 + 0.009 (I) where I is the percent impervious cover

A = area in acres

(3) *Impact drainage areas – special requirements in protective areas.*

(a) The administering authority is authorized, but is not required, to classify certain geographical areas as impact drainage areas, and to enact and promulgate regulations, which are generally applied. In determining impact drainage areas, the administering authority shall consider such factors as topography, soil type, capacity of existing regulated drains, and distance from adequate drainage facilities. In addition to specific impact drainage areas classified by the administering authority, the following areas are hereby designated as impact drainage areas, unless good reason for not including them is presented and approved by the Storm Water Management Board:

1. A floodway, floodway fringe or floodplain boundary as designated by the Indiana Department of Natural Resources.
2. A flood boundary area or floodway as designated by the Federal Emergency Management Agency National Flood Insurance Program.
3. Land within 75 feet of each bank of any open channel, regulated drain.
4. Land within 75 feet of the centerline of any regulated drain tile.

(b) Impervious surfaces shall be kept out of the protective area to the maximum extent practicable.

(c) Where land-disturbing construction activity occurs within a protective area, and where no impervious surface is present, adequate sod or self-sustaining vegetative cover of 70% or greater shall be established and maintained. The adequate sod or self-sustaining vegetative cover shall be sufficient to provide for bank stability, maintenance of fish habitat, and filtering of pollutants from upslope overland flow areas under sheet flow conditions. Non-vegetative materials, such as rock riprap, may be employed on the bank as necessary to prevent erosion, such as on steep slopes or where high velocity flows occur.

Note to users: It is recommended that seeding of non-aggressive vegetative cover be used in the protective areas. Vegetation that is flood- and drought-tolerant, and can provide long-term bank stability because of an extensive root system, is preferable.

(d) Best management practices, such as filter strips, swales, or wet detention basins, that are designed to control pollutants from non-point sources may be located in the protective area.

(e) This paragraph does not apply to:

1. Redevelopment sites;
2. In-fill development less than five acres; or
3. Structures that cross or access surface waters, such as boat landings,

bridges and culverts.

(f) Storm water discharges to critical areas with sensitive resources (i.e., navigable waters, receiving waters with approved TMDL limits, recharge areas, water supply reservoirs) may be subject to additional performance criteria, or may need to utilize or restrict certain storm water management practices.

(4) *Fueling and vehicle maintenance areas.* Special requirements for new retail gasoline outlets, new municipal, state, federal, institutional or commercial refueling areas, or refueling areas that replace their existing tank systems. (Excludes individual or agricultural users.)

(a) Fueling and vehicle maintenance areas shall, to the maximum extent practicable, have BMPs designed, installed and maintained to reduce petroleum within runoff, such that the runoff that enters waters of the state contains no visible petroleum sheen.

(b) **Note to users:** A combination of the following BMPs may be used:

1. Oil and grease separators;
2. Canopies;
3. Petroleum spill cleanup materials; or,
4. Any other structural or nonstructural method of preventing or treating petroleum in runoff.

(5) *Alternative requirements.* The administrative authority may establish storm water management requirements more stringent than those set forth in this section, if the MS4 Operator determines that an added level of protection is needed to protect sensitive resources.

2. **§ 53.204 is hereby deleted in its entirety and replaced with the following:**

§ 53.204 STORM WATER MANAGEMENT PLAN DESIGN CRITERIA

(A) *Minimum requirements.* All development disturbing at least one acre and all redevelopment disturbing at least 10,000 square feet must include provisions to preserve or minimize impacts to pre-development site hydrology and topography, to the maximum extent practicable, through runoff pollution prevention techniques. In addition to runoff pollution prevention measures, storm water treatment BMPs shall be incorporated into plan design as needed to meet the performance criteria in § 53.203.

(B) *Runoff pollution prevention.*

(1) *Storm water management begins with thoughtful design.* Site planning that integrates comprehensive storm water management from the outset is the most effective way to reduce and prevent pollution and flooding. Good site planning can also reduce the size and cost of structural solutions. When BMP storm water structures are proposed only at the final stages of design and construction, the result is often unnecessarily large and costly facilities. Planning ahead can prevent the need for large structures.

(2) *Site-planning practices.* With careful site planning, developers and municipalities can reduce the amount of impervious area created by pavement and roofs, and thus, reduce the volume of runoff and associated pollutants requiring control. Practices that could be considered:

(a) Select site designs that preserve or minimize impacts to pre-development site hydrology and topography.

(b) Protect environmentally sensitive areas.

(c) Practice conservation development.

(a) Use cluster development.

(e) Create open space.

(f) Maximize the flow path from inflow points to outflow points.

(g) Provide underdrain systems, where applicable.

(h) Reduce hydraulic connectivity of impervious surfaces.

(i) Practice rooftop greening.

(j) Relax frontage and setback requirements.

(k) Modify sidewalk standards.

(l) Modify driveway standards.

(m) Use alternative cul-de-sac designs.

(n) Use alternative parking lot surfaces.

(C) *Storm water treatment BMPs.*

(1) *Types of treatment BMPs.*

(a) A variety of BMPs are effective in:

1. Filtering storm water;
2. Reducing the speed at which it leaves a site; and
3. Reducing the volume of runoff.

(b) These three actions are critical to reducing non-point-source water pollution and protecting downstream water bodies.

(c) Some types of storm water treatment BMPs are:

1. Retention systems;
2. Detention systems;
3. Infiltration systems;
4. Filtration systems;
5. Constructed wetlands; and
6. Alternative outlet designs.

(2) *Location and regional treatment options.* All storm water storage facilities shall be constructed within a dedicated storm water storage easement, which meets the minimum requirements set forth in the latest edition of the Lowell Town Standards adopted by the Lowell Common Council.

(3) *Location of BMPs.* BMPs may be located on site or off site as part of a regional storm water device, practice or system.

(4) *Off-site management conditions.* The administering authority may approve off-site management measures, provided that all of the following conditions are met:

(a) The administering authority determines that the post-construction runoff is covered by a storm water management system plan that is approved by the local public agency; and

(b) The plan approved contains specific management requirements consistent with the stated purposes and intent of this subchapter.

(5) *Off-site facility conditions.* The off-site facility shall meet all of the following conditions:

(a) The facility is in place;

(b) The facility is designed and adequately sized to provide a level of storm water control equal to or greater than that which would be afforded by on-site practices meeting the performance standards of this subchapter; and

(c) The facility has a person or entity legally obligated and responsible for its long-term operation and maintenance.

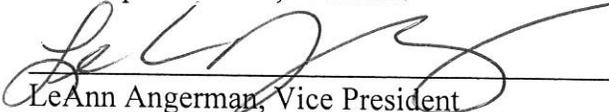
(6) *Exemption fee.* Where a regional treatment option is utilized, such that the Storm Water Management Board may exempt the applicant from all or part of the minimum on-site storm water management requirements, the applicant shall be required to pay a fee in an amount determined in negotiation with the Board. In determining the fee for post-construction runoff, the Board shall consider an equitable distribution of the cost for land, engineering design, construction and maintenance of the regional treatment option.

DULY ORDAINED and APPROVED by the Town Council of the Town of Lowell, Lake County, Indiana, this 14th day of September, 2015 by a vote of 5 in favor and 0 opposed.

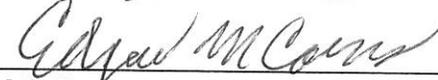
**TOWN OF LOWELL, LAKE COUNTY, INDIANA
BY ITS TOWN COUNCIL:**



Christopher Salatas, President



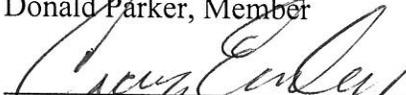
LeAnn Angerman, Vice President



Edgar M. Combs, Member



Donald Parker, Member



Craig Earley, Member

Attest:



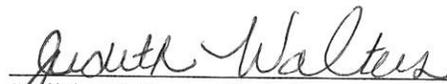
Judith Walters, Clerk-Treasurer

Approved by the Executive this
14th day of September, 2015.



Christopher Salatas, President

Attest:



Judith Walters, Clerk-Treasurer