



TOWN OF SMYRNA STORM WATER ADVISORY COMMITTEE
AGENDA
JANUARY 25, 2016
COUNCIL CHAMBERS, TOWN HALL
6:00 PM

- I. CALL TO ORDER**
- II. CITIZENS COMMENTS**
Speakers are limited to (3) three minutes. Additional comments may be submitted in writing.
- III. REVIEW AND APPROVE MINUTES FOR OCTOBER 19, 2015 STORM WATER ADVISORY COMMITTEE (SWAC) MEETING**
- IV. OLD BUSINESS**
 - A. None this month
- V. NEW BUSINESS**
 - A. Consent / Correction Agenda**
 - 1. *Vacant / Inactive Account List*
 - B. Adjustment Applications**
None this month
 - C. Credit Applications**
None this month
 - D. Review and approve updated By-Laws and Rules of Procedure of the Storm Water Advisory Committee**
 - E. Review and approve Smyrna Storm Water Management Ordinance 2016**
 - F. Review and approve Water Quality Buffer Zone Policy 2016**
- VI. REPORTS OF OFFICERS, COMMITTEES, OR STAFF**
 - A. Discuss Storm Water Utility inquiries to date**
 - B. Presentation of Quarterly Report**
 - C. Miscellaneous**
- VII. ADJOURNMENT**

MINUTES OF THE TOWN OF SMYRNA STORM WATER ADVISORY COMMITTEE

October 19, 2015

1st Item: Call to Order

The October meeting of the Town of Smyrna Storm Water Advisory Committee was held on Monday, October 19, 2015. The meeting was called to order by Vice Chairman Bobby Garland at 6:00 P.M. at Town Hall, Smyrna, Tennessee.

The following Storm Water Advisory Committee members and staff were present:

Members:

Bobby Garland, Vice Chairman
Paul Johns
Frank Musgrave
Pam Thompson
Ray Lee
Chase Block
Brandon Hamilton

Staff:

Greg Upham
Susan Weber
Dwaine Lawson
Jeff Peach, Staff Attorney

Absent:

Tom Rose, Director of Public Works
Kathryn Smith

2nd Item: Citizen Comments

Vice Chairman Bobby Garland asked if there were any citizen comments to be heard by the Committee. There being none, the Committee proceeded to item #3 of the agenda.

3rd Item: Election of Officers

Subsequent to the resignation of Chairman Charles King, election of officers was required to fill this vacated position. Paul Johns nominated Bobby Garland as Chairman. There being no other nominees, it was approved unanimously to elect Bobby Garland as Chairman. Paul Johns then nominated Frank Musgrave as Vice-Chairman. There being no other nominees, it was approved unanimously to elect Frank Musgrave as Vice-Chairman.

4th Item: Approval of Minutes of the July 20, 2015 Meeting

The Committee considered a motion by Frank Musgrave to approve the minutes of the July 20, 2015 meeting as presented. The motion was seconded by Chase Block. The motion was approved unanimously. A copy of the minutes as approved are attached hereto and marked Exhibit "1".

5th Item: Old Business

There was no old business to discuss at this meeting.

6th Item: New Business

A. Consent/Correction Agenda

1. Vacant / Inactive Account List

The Stormwater Fee Vacant Account List (through 9/30/15) was presented by staff. The 4 accounts on the list will be re-opened with the fees being assessed to the property owners. A copy of the Stormwater Fee Vacant Account List (through 9/30/15) is attached hereto and marked as Exhibit "2".

The Committee then considered a motion by Paul Johns to approve the Consent/Correction Agenda as recommended by staff. The motion was seconded by Chase Block. The motion was approved unanimously.

B. Adjustment Applications

There were no adjustment applications to consider at this meeting.

C. Credit Applications

There were no credit applications to consider at this meeting.

7th Item: Reports of Officers, Committees, or Staff

A. Greg Upham reported to the Committee that during the previous quarter, July 1, 2015 through September 30, 2015, staff received two calls/inquiries about the Storm Water User Fee.

B. Prior to the presentation of the Quarterly Report for the period of July 1, 2015 through September 30, 2015, Mr. Upham announced that it was during this period the Town hired a new Public Works Director, Tom Rose. He then gave a brief description of Mr. Rose's background and experience. Mr. Upham then proceeded with the presentation of the Quarterly Progress Report. A copy of the Storm Water Management Program Quarterly Progress Report is attached hereto and marked as Exhibit "3".

C. Miscellaneous

- At this time, Mr. Upham introduced and welcomed Mr. Brandon Hamilton, a newly appointed member of the Stormwater Advisory Committee.
- The Committee was then asked to consider making changes to the by-laws that would require quarterly meetings instead of monthly meetings. A special meeting could be called if an occasion arose that required attention before the next scheduled meeting. It was agreed that this item would be included on the agenda for a formal vote at the next regular SWAC meeting.

8th Item: Adjournment

There being no further business to come before the Committee, a motion was made by Paul Johns to adjourn the meeting and a second by Chase Block. Without objection, the meeting was adjourned at 6:27 PM.

Submitted by:

Certified by:

Greg Upham, Secretary

Bobby Garland, Chairman

Stormwater Fee Vacant Account List (through 9/30/15)

Item	Previous Occupant	Property Address	Account #	Monthly Fee	Vacant Date	Reason For Making Into Stormwater Only Account	Property Owner	Owner's Address
1	Thermal Balance, Inc.	408 B S. Lowry Street (across from Aldi)	104-00340	\$3.47	9/30/2015	Account to be opened up in property owner's name until occupied by another tenant.	James T. Johnson, Sr.	100 Holloway Square Smyrna, TN 37167
2	Smyrna Tobacco & Beer	37 S. Lowry Street (next to Smyrna Cleaners)	104-08390	\$5.22	10/5/2015	Account to be opened up in property owner's name until occupied by another tenant.	Shin Kim	107 Hidden Valley Rd. Arrington, TN 37014
3	True Love Christian Church	1402 & 1404 Hazelwood Drive (next to VA Call Center)	251-02895	\$15.88	8/11/2015	Account to be opened up in property owner's name until occupied by another tenant.	Country Village, LLC	500 Wilson Pike Cr #228 Brentwood, TN 37027
4	Smyrna Video	1208 Hazelwood Drive (across from Kinfolks BBQ)	256-04860	\$23.81	8/17/2015	Account to be opened up in property owner's name until occupied by another tenant.	Wholesale Other Real Estate Owned	303 Peachtree Street Atlanta, GA 30308

Memorandum

To: All SWAC members
CC:
From: Greg Upham
Date: 1/11/2016
Re: January's SWAC meeting: Review the new SWAC By-laws

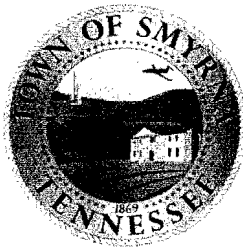
Greetings:

I have attached the document entitled By-Laws and Rules of Procedure of the Storm Water Advisory Committee. If you turn to page 2 then look at Article III, Meetings, found near the bottom of that page you will learn that the Storm Water Management Program staff is proposing that only quarterly SWAC meetings be held, unless it is ever deemed necessary to meet monthly. This will allow the staff to spend less time on canceling normally scheduled monthly meetings.

During the January meeting, you will vote on the acceptance or denial of this by-law and rules change, which is found behind this document. If you would like a better understanding of this proposal, please feel free to call me at 355-5701.

SWACcoverBylawChange2016.doc

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**BY - LAWS AND RULES OF PROCEDURE
OF
THE STORM WATER ADVISORY COMMITTEE
OF
THE TOWN OF SMYRNA, TENNESSEE**

**ARTICLE I
THE COMMITTEE**

The purpose of the Storm Water Advisory Committee is to advise and assist the Town of Smyrna in implementing a program for reducing pollutants discharged into creeks, ditches, streams, rivers and sinkholes, and to advance specific elements of the program, including, but not limited to, the following: public education and outreach programs; identification of sources and causes of pollution from runoff and discharges; and development of appropriate ordinances and regulations for Town Council consideration to govern activities that contribute to stream pollution. The Storm Water Advisory Committee shall also hear and determine appeals related to the assessment of the storm water user fee. The Storm Water Advisory Committee shall also make determinations of credits, adjustments, and the loss of credits and/or adjustments related to the storm water user fee.

Section 1. **Name of Committee.** The name of the Committee shall be the "Town of Smyrna Storm Water Advisory Committee" as established and provided in Title XIV, Chapter 5 of the Smyrna Municipal Code.

Section 2. **Records of the Committee.** The records of the Storm Water Advisory Committee shall be kept in the Town Hall and shall be available for the public.

Section 3. **Membership.** The membership of the Storm Water Advisory Committee shall conform to Section 14-502 of the Smyrna Municipal Code. An official roster of Board members shall be kept by the Town Clerk.

Section 4. **Order of Business.**

- A. Call to Order
- B. Review and approval of minutes of previous meetings.

- C. Old Business
- D. New Business
- E. Reports of officers, committees, or staff.
- F. Adjournment

ARTICLE II

OFFICERS

Section 1. **Officers.** The officers of the Committee shall be a Chairman and Vice-Chairman.

Section 2. **Elections.** The Chairman and Vice-Chairman shall be elected annually at the April meeting, with the exception that the election of officers under the amended by-laws shall be at the first regularly scheduled meeting in which the by-laws are adopted. All elected officers of the Committee shall serve for a term of one (1) year and shall be eligible for re-election.

Section 3. **Chairman.** The Chairman shall preside at all meetings of the Committee and shall perform such other duties as the Committee shall authorize. The Chairman shall exercise his voice and vote as a member of the Committee at all times.

Section 4. **Vice-Chairman.** In absence, disability or disqualification of the Chairman, the Vice-Chairman shall perform the duties of the Chairman.

Section 5. **Secretary.** The Director of Public Works shall provide a secretary from staff responsible for maintaining a full record of all proceedings of the Committee and the minutes of the Committee. The duties of the Secretary will include the preparation of minutes for the approval of the Committee, as well as the notification of members when there are changes to regularly scheduled meetings. The Secretary shall also perform such other duties in regard to records, including the certification of record transcripts and minutes, as the Committee may direct.

Section 6. **Vacancies.** Should the office of Chairman or Vice-Chairman become vacant the Committee shall elect successors to these positions to serve for the unexpired term of said offices. Should a vacancy occur due to any reason, the Director of Public Works shall give notice to the Town Manager so that a new appointment can be considered by the Town Council.

ARTICLE III

MEETINGS

Section 1. **Regular Meetings.** Meetings of the Committee shall be held quarterly on the third Monday of January, April, July and October of each year at 6:00 PM at Town Hall.

Section 2. **Special Meetings.** The Chairman of the Committee may call a special meeting at his discretion and shall, upon the request of two (2) members of the Committee call a special meeting for the purpose of transacting any business. Seven (7) days notice of the special meeting shall be given members of the Committee by the Secretary and to the general public.

Section 3. **Meeting Notices.** Notice of regular meetings as to time, place, and subject matter shall be advertised in a newspaper of general circulation in the Smyrna area at least seven (7) days prior to the meeting.

Notice of special meetings, giving time, place and subject matter, shall be advertised in a newspaper of general circulation in the Smyrna area in the next edition(s) following the decision to hold a special meeting.

Section 4. **Quorum.** A quorum (50% of the members) shall be present to transact official business of the Committee. Approval of a simple majority of those present shall be required to pass a motion or take other action unless otherwise provided by these bylaws.

Section 5. **Manner of Voting.** All matters to be voted on by the Committee shall be put in the form of a motion by one of the voting members and seconded by another voting member that will be recorded in the transcript. A motion, which will be included within the minutes, may be amended in accordance with *Robert's Rules of Order*. The Chairman shall conduct the voting by asking those in favor to signify by saying "Yes" and those opposed by saying "No". The Chairman shall then inform the recording secretary of the corresponding votes. The Chairman shall have a roll call vote if there is any question about the result of the vote or if any Committee member so requests and the record of such roll call vote shall be recorded by the secretary and included in the minutes. The record shall also reflect the abstention of any member from discussions and voting. Approval of any business or action by the Committee shall be by a favorable vote of a majority of those present and voting when a quorum is present.

Section 6. **Conflict of Interests.** If any member considers their personal interest could be involved in any matter before the Committee which calls for a vote may request to be excused from participating in any discussion as well as voting. It shall be the responsibility of the Committee members to disclose any conflict of interest. Minutes shall note if a member excuses himself or herself. Committee members shall comply with the Code of Ethics of the Town of Smyrna at all times when conducting business in any manner associated with the member's position on the Storm Water Advisory Committee.

Section 7. **Agenda.** The Director of Public Works shall have prepared for each meeting an agenda specifying the order in which the items of business shall appear before the Committee. All items shall be submitted at least twenty (20) day prior to the meeting at which the business is to be discussed.

In no event shall an application or appeal be considered which is not complete and will not be processed unless it is accompanied by the appropriate fee (if applicable), the application form and any supporting documentation.

The agenda, with accompanying application, background documentation, and other required materials, shall be delivered to Committee members no later than seven (7) days prior to the scheduled meeting.

Section 98. **Calling Recessed Meetings.** No recess shall be called until the discussion of the subject on the table has been completed and vote taken.

Section 109. **SWAC legal status.** Committee not empowered to obligate town or incur liability. Notwithstanding anything that may be herein contained or implied to the contrary, the committee shall not be empowered to obligate the town in any way or to expend or incur liability for any sum of money, it being the intent of the Town Council that the Committee shall act in an advisory capacity only and shall serve only to make recommendations to the Town of Smyrna staff, planning commission and Town Council, as appropriate.

ARTICLE IV

RULES OF ORDER

Section 1. **Rules of Order.** When a parliamentary matter arises that is not covered by these by-laws, *Robert's Rules of Order, Newly Revised, 10th Edition*, shall apply.

ARTICLE V

AMENDING OR WAIVING RULES

Section 1. **Amending Rules.** These rules may be amended by a majority of the members of the Committee, except where such amendment would be contrary to requirement or limitations set by state law or by the Smyrna Municipal Code. An amendment may be proposed at any regular meeting or a special meeting of the Committee, by presentation of written copies of the proposal to the members present, but shall not be acted upon until the following regular meeting. Copies of the proposed amendment shall be mailed to any member not present for its introduction within five (5) working days after the meeting.

Section 2. **Waiving or Suspending Rules.** A rule of procedure may be suspended or waived at any meeting by majority vote of Committee members present unless such rule is set by state law or the Smyrna Municipal Code.

ADOPTED by the Storm Water Advisory Committee on this the _____ day of _____ 2016.

Chairman

Secretary

Memorandum

To: All SWAC members

CC:

From: Greg Upham

Date: 1/11/2016

Re: January's SWAC meeting: Review the new Storm Water Management Ordinance

Greetings:

I have attached the document entitled "Stormwater Management Ordinance, Chapter 6". Upon Bobby's emailed request, we have presented this document in three colors; black, red, and blue.

Black – original MTAS version provided to us in 2014.

Red – our original revisions made in late 2014

Blue – revisions made by Tom Rose in late 2015

The Storm Water Management Ordinance must be approved by the SWAC and Town Council in order to become law within the Town of Smyrna. This ordinance allows the Town of Smyrna to enforce the Town's MS4 permit with TDEC.

If you would like a better understanding of the future changes to the SWM ordinance, please feel free to call me at 355-5701.

SWACcover11116.doc

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TITLE 14

ZONING AND LAND USE CONTROL

CHAPTER

1. ZONING ORDINANCE.
2. PLANNING DEPARTMENT.
3. PLANNING COMMISSION.
4. SIGN ORDINANCE.
5. STORM WATER ADVISORY COMMITTEE.
6. STORM WATER MANAGEMENT ORDINANCE.
7. DEVELOPMENT AGREEMENT.

CHAPTER 6

STORM WATER MANAGEMENT ORDINANCE¹

SECTION

- 14-601. ~~Title and purpose.~~General provisions.
- 14-602. ~~Jurisdiction.~~Definitions.
- 14-603. ~~Definitions.~~Grading Permits.
- 14-604. ~~Land disturbance permits.~~Stormwater system design: Construction and Permanent stormwater management.
- 14-605. ~~Waivers.~~Permanent stormwater management: operation, maintenance, and inspection.
- 14-606. ~~Storm water system design and management standards.~~Existing locations and ongoing developments.
- 14-607. ~~Post construction.~~Illicit discharges.
- 14-608. ~~Existing locations and developments.~~Enforcement.
- 14-609. ~~Illicit discharges.~~Penalties.
- 14-610. ~~Enforcement.~~Appeals.
- 14-611. ~~Penalties.~~Amendments.
- 14-612. ~~Appeals.~~Right of Entry and Inspection.
- ~~14-613. Amendments.~~
- ~~14-614. Right of Entry and Inspection~~

¹Municipal code reference

Stormwater advisory committee: title 14, chapter 5.

14-601. ~~Title and purpose~~**General provisions**. This ordinance shall be known as the "Stormwater Management Ordinance" for the Town of Smyrna, Tennessee ~~(Town)~~.

(1) Introduction.

(a) ~~This ordinance is intended to manage stormwater runoff from new development and redevelopment projects to help maintain or improve water quality, water quantity and the effects of the quality of life and character for Town of Smyrna, Tennessee. This ordinance is intended to help eliminate soil erosion and/or sediment in stream channels that alter the integrity and profile of the stream regime, pollutes water, overloads existing drainage facilities with stormwater and sediment, undermines floodplain management in downstream communities, reduces groundwater recharge, harms or possibly eliminating, natural fauna and flora, and threatens public health and safety. More specifically, surface water runoff can carry pollutants, including the leading pollutant, sediment, into receiving waters. The potential impacts of these pollutants and the accompanying higher velocities and greater volumes include:~~Inadequate management of storm water runoff ~~from development in a watershed increases flood flows and velocities, erodes and/or silts stream channels altering the integrity and profile of the stream regime, pollutes water, overloads existing drainage facilities with storm water and sediment, undermines floodplain management in downstream communities, reduces groundwater recharge, harms, possibly eliminating, natural fauna and flora, and threatens public health and safety. More specifically, surface water runoff can carry pollutants, including the leading pollutant, sediment, into receiving waters. The potential impacts of these pollutants and the accompanying higher velocities and greater volumes include:~~

(i) Changing natural ecosystems through sediment and pollutant deposits as well as erosion of stream banks that affect the quantity and quality of water flowing, the destruction of habitats, ~~the burying of food sources~~, and the loss of plant and animal life;

(ii) Posing significant health risks through increased bacteria;

(iii) Accelerating algal growth to the extent of contamination of receiving waters by adding excessive nutrient loads;

(iv) Increasing metal deposits and total suspended solids, thus creating adverse toxicity for aquatic life;

(v) Reducing oxygen levels because of oil, grease, and organic matter;

(vi) Affecting animal and plant life adversely, due to changing temperatures, thus decreasing dissolved oxygen levels of receiving waters.

(b) Uncontrolled stormwater can increase the incidence of flooding and the level of floods which occur, altering the integrity and profile of stream regime, endangering roads, public and private property, and human life. Altered land surfaces can change runoff rate and volume as seen in the following:

(i) Erosion and slumping of stream banks, undercutting roots, blockage and diversion of stream flow directions by fallen trees;

(ii) Increased erosion rates; and

(iii) Uniform and shallow streambeds, providing less varied aquatic habitats.

(c) The adverse water quality and quantity consequences described above may result in substantial economic and/or human losses. The potential losses include, but are not limited to, increased wastewater and drinking water treatment costs, diminished property values, loss of recreational canoeing and kayaking, increased flood damages and insurance rates, increased stream bank remediation as well as state and federal fines associated with water quality violations. Many future problems can be avoided through proper stormwater management, whereby a comprehensive and reasonable program of regulations is fundamental to the public health, safety, and welfare and to the protection of the citizenry and environment.

(2) Purpose. It is the purpose of this chapter to:

(a) Protect, maintain, and enhance the environment of the Town and the public health, safety, and the general welfare of the citizens of the Town, by controlling discharges of pollutants to the Town's stormwater system and to maintain and improve the quality of the receiving waters into which the stormwater outfalls flow, including, without limitation, lakes, rivers, streams, ponds, wetlands, and groundwater of the Town;

(b) Enable the Town to comply with the National Pollutant Discharge Elimination System permit (NPDES) and applicable regulations, 40 CFR Section 122.26 for stormwater discharges; and

(c) Allow the Town of Smyrna to exercise the powers granted in Tennessee Code Annotated, § 68-221-1105, which provides that, among other powers municipalities have with respect to stormwater facilities, is the power by ordinance or resolution to:

(i) Exercise general regulation over the planning, location, construction, and operation and maintenance of storm water facilities in the Town, whether or not owned and operated by the Town;

(ii) Adopt any rules and regulations deemed necessary to accomplish the purposes of this statute, including the adoption of a system of fees for services and permits;

(iii) Establish standards to regulate the quantity of stormwater discharged and to regulate stormwater contaminants as may be necessary to protect water quality;

(iv) Review and approve plans and plats for stormwater management in proposed subdivisions or commercial developments;

(v) Issue permits for stormwater discharges, or for the construction, alteration, extension, or repair of stormwater facilities;

(vi) Suspend or revoke permits when it is determined that the permittee has violated any applicable ordinance, resolution, or condition of the permit;

(vii) Regulate and prohibit discharges into stormwater facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated; and

(viii) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of stormwater contamination, whether public or private.

(3) Administering entity. The Town's Stormwater Management coordinator or designee shall administer the provisions of this chapter.

(4) Fees. In order to fund the costs of stormwater management and of administering the provisions of this ordinance, each applicant for land disturbance permit, at the time of submitting such application therefore, shall pay a fee in the amount established by a fee schedule adopted as a part of the budget ordinance. The Town Council of the Town of Smyrna specifically reserves the right to amend this ordinance from time to time to change the amounts and/or calculation of such fees and/or to implement a different system of fees and charges to fund the costs of stormwater management and of

administering the provisions of this ordinance. Notwithstanding anything herein to the contrary, the fees established by this subsection shall not become effective until sixty (60) days following the effective date of Ord. #05-07. (Ord. #04-48, Jan. 2005, as amended by Ord #05-07, March 2005, and Ord. #05-19, May 2005)

(5) ~~14-602~~. Jurisdiction. The stormwater management ordinance shall govern all properties within the corporate limits of the Town of Smyrna. The intended purpose of this ordinance is to safeguard property and public welfare by regulating stormwater drainage and requiring temporary and permanent provisions for its control. It should be used as a planning and engineering implement to facilitate the necessary control of stormwater. (Ord. #04-48, Jan. 2005)

(6) Authority of departments. The Town Manager may provide authority in part or whole to various departments for the implementation of activities pursuant to this Title. This authority may include but is not limited to plan review, incentives negotiation, plan approval and Stormwater facilities Maintenance. The Public Works Director or Town Engineer shall have the authority of administration and enforcement of the provisions established pursuant to this Title, including, but not limited to, the issuance of civil penalties.

(7) Right-of-entry

(a) Designated Town staff shall have right of entry on or upon the property of any person subject to this Title and any permit/document issued hereunder. The Town staff shall be provided ready easy access to all parts of the premises for the purposes of inspection, monitoring, sampling, inventory, records examination and copying, and the performance of any duties necessary to determine/document compliance with this Title.

(b) Where a property, Site or facility has security measures in force which require proper identification and clearance before entry into its premises, the person shall make necessary arrangements with its security personnel so that, upon presentation of suitable identification, the designated Town staff will be permitted to enter without delay for the purposes of performing specific responsibilities.

(c) Designated Town staff shall have the right to set up on the person's property such devices as are necessary to conduct sampling and/or monitoring of the person's Stormwater operations or discharges.

(d) Any temporary or permanent obstruction to safe and easy access to the areas to be inspected and/or monitored shall be removed

promptly by the person at the written or verbal request of the Town staff. The costs of clearing such access shall be borne by the person.

(e) The Public Works Director or Town Engineer or designee, may inspect the facilities of any user in order to ensure compliance with this Title. Such inspection shall be made with the consent of the owner, manager, or signatory official. If such consent is refused, denied or not promptly addressed, the designated Town staff may seek issuance of an administrative search warrant.

(f) The Town has the right to determine and impose inspection schedules necessary to enforce the provisions of this article. Inspections may include, but are not limited to, the following:

(i) An initial inspection prior to Stormwater Management Plan approval;

(ii) A bury inspection prior to burial of any underground drainage structure;

(iii) Erosion control inspections as necessary to ensure effective control of Erosion and sedimentation; and

(iv) A finish inspection when all work, including installation of storm management facilities, has been completed.

(v) Regular or random follow-up inspections to ensure the storm management facilities remain in compliance.

14-6023. Definitions. For the purpose of this section, the following definitions shall apply: Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary. The word "may" is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

(1) "100-Year Flood Event." See Base Flood.

(2) "Active Channel." The portion of the Stream Channel that is subject to frequent flows (approximately once every two (2) years) and the portion of the Channel below the Floodway.

(3) "Active construction site." Any site that has a permit for grading or other related activities (even if actual construction is not proceeding) and any site where construction is occurring regardless of permits acquired.

(4) "Appeal." A request for a review of the Town of Smyrna Engineer's interpretation of any provisions of these regulations.

(5) "[Aquatic Resource Alteration Permit \(ARAP\).](#)" [Examples of stream](#)

alterations that require a permit from the TDEC Division of Water Resources and/or U.S. Army Corp of Engineers include:

- (a) Dredging, excavation, channel widening, or straightening
- (b) Bank sloping; stabilization
- (c) Channel relocation
- (d) Use of any motorized equipment between the top of banks
- (e) Water diversions or withdrawals
- (f) Construction/removal of dams, weirs, dikes, levees, similar structures
- (g) Flooding, excavating, draining and/or filling a wetland
- (h) Road and utility crossings
- (i) Structural fill

_____ **Note:** No person or entity shall violate any provision of a general or specific ARAP permit. "Architect." An Architect duly registered, licensed or otherwise authorized by the State of Tennessee to practice in the field of Building architecture.

(6) "As-built plans." means drawings depicting conditions as they were actually constructed. Their submittal and approval is a requirement for the issuance of a certificate of occupancy.

(7) "Base flood." A Flood that has an average frequency of occurrence of once in one hundred (100) years, determined from an analysis of Floods on a particular watercourse and other watercourses in the same general region. Statistically, it has a one percent chance of occurring in any given year. ~~The flood having a one percent chance of being equaled or exceeded in any given year. While this statistical event may occur more frequently,~~ it may also be known as the "100-year flood event."

(8) "Blue line streams." Streams that are represented on the United States Department of the Interior, Geological Survey (USGS) 1:24,000 topographic quadrangle maps.

(9) "Best management practices or (BMP's)." means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMP's also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. ~~The physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of water, that have been approved by the Town of Smyrna, and that have been incorporated by reference into this ordinance as if fully set out therein.~~²

²~~See § 14-606(1) for recommended BMP manual.~~

(10) "BMP treatment train." A technique for progressively selecting various stormwater management practices to address water quality, by which groups of practices may be used to achieve a treatment goal while optimizing effectiveness, maintenance needs, and space.

(11) "Borrow pit." is an excavation from which erodible material (typically soil) is removed to be used as fill for another site. There is no processing or separation of erodible material conducted at the site. Given the nature of activity and pollutants present at such excavation, a borrow pit is considered a construction activity for the purpose of this permit. An excavated area where material has been dug for use as fill at another location.

(12) "Bridge." A manmade structure spanning and providing passage over a waterway to allow for the conveyance of Stormwater flows. Spans of twenty feet (20') or more are considered a Bridge. A man-made conveyance over storm water flows.

(13) "Buffer Zone." means a setback from the top of water body's bank of undisturbed vegetation, including trees, shrubs and herbaceous vegetation; enhanced or restored vegetation; or the re-establishment of native vegetation bordering streams, ponds, wetlands, springs, reservoirs, or lakes, which exists or is established to protect those water bodies. The goal of the water quality buffer is to preserve undisturbed vegetation that is native to the streamside habitat in the area of the project. Vegetated, preferably native, water quality buffers protect water bodies by providing structural integrity and canopy cover (maintain cooler water temperatures) as well as stormwater infiltration, filtration, and evapotranspiration. Specific channel protection criteria shall be provided as prescribed in the BMP manuals and the Water Quality Buffer Zone Policy as adopted under 14-604.1(a).

(6) "Buffer Zone Requirements."

(a) "Construction" applies to all streams adjacent to construction sites, with an exception for streams designated as impaired or Exceptional Tennessee waters, as designated by the Tennessee Department of Environment and Conservation. A 30-foot natural riparian buffer zone adjacent to all streams at the construction site shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state located within or immediately adjacent to the boundaries of the project, as identified using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals, TN Rules Chapter 0400-40-17). Buffer zones are not primary sediment control measures and should not be relied on as such. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites. The riparian buffer zone should be preserved between the top of stream bank and the disturbed construction area. The 30-foot criterion

for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 15 feet at any measured location.

(b) Buffer zone requirements for discharges into impaired or exceptional waters:

A 60-foot natural riparian buffer zone adjacent to the receiving stream designated as impaired or exceptional waters shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state (e.g., perennial and intermittent streams, rivers, lakes, wetlands) located within or immediately adjacent to the boundaries of the project, as identified on a 7.5-minute USGS quadrangle map, or as determined by the director. Buffer zones are not sediment control measures and should not be relied upon as primary sediment control measures. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites. The riparian buffer zone should be established between the top of stream bank and the disturbed construction area. The 60-foot criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 25 feet at any measured location.

(c) "Permanent" new development and significant redevelopment sites are required to preserve water quality buffers along waters within the MS4. Buffers shall be clearly marked on site development plans, Grading Permit applications, and/or concept plans. Buffer width depends on the size of a drainage area. Streams or other waters with drainage areas less than 1 square mile will require buffer widths of 30 feet minimum. Streams or other waters with drainage areas greater than 1 square mile will require buffer widths of 60 feet minimum. The 60-foot criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 30 feet at any measured location.

(14) "Building." Any structure built for support, shelter, or enclosure for any occupancy or storage.

(15) "Channel." A natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.

(16) “Common plan of development or sale.” is broadly defined as any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different operators.

(17) “Community water.” Any rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wetlands, wells, and other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the Town of Smyrna.

(18) “Contaminant.” Any physical, chemical, biological, or radiological substance or matter in surface or groundwater that is not naturally found there.

(19) “Cross-Drain.” A Culvert used to convey flow under a road or other obstruction between Channels or surface flow.

(20) “Critical design-storm period.” Refers to the time in which detention volume must be controlled with the pre-development flow volume as a maximum limit.

(21) “Culvert.” A man-made conveyance of stormwater flows, including a pipe or other constructed conveyance .

(22) “Cut.” Portion of land surface or area from which earth has been removed or will be removed by excavation; the depth below original ground surface to the excavated surface.

(23) “Design storm event.” A hypothetical storm event, of a given frequency interval and duration, used in the analysis and design of a stormwater facility. The estimated design rainfall amounts, for any return period interval (2-yr, 5-yr, 10-yr, 25-yr, 50-yr, 100-yr, etc.) in terms of either 24-hour depths or intensities for any duration, can be found by accessing the following NOAA National Weather Service Atlas 14 data for Tennessee:

[http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=tn.](http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=tn)
Other data sources may be acceptable with prior written approval by TDEC Water Pollution Control.

(24) “Detention.” The temporary delay of storm runoff prior to discharge into receiving waters.

(25) “Developer.” Any individual, firm, corporation, association, partnership, trust, or authorized agents involved in commencing proceedings to effect Development of land for him/her or others.

(26) “Development.” Any man-made change to improved or unimproved real estate, including but not limited to, Buildings or other Structures, mining, dredging, Filling,

Grading, paving, excavating, drilling operations, or permanent storage of materials (as defined as materials of like nature stored in whole or in part for more than six months).

(27) "Discharge." Dispose, deposit, spill, pour, inject, seep, dump, leak, or place by any means, or that which is disposed, deposited, spilled, poured, injected, seeped, dumped, leaked, or placed by any means including any direct or indirect entry of any solid or liquid matter into the municipal separate storm sewer system either accidental or intentional.

(28) "Drainage Basin." A part of the surface of the earth that is occupied by and provides surface water runoff into a Stormwater Management System (MS4 or Waters of the State), which consists of a surface Stream or a body of impounded surface water together with all tributary surface Streams and bodies of impounded surface water.

(29) "Easement." An acquired privilege or right of use or enjoyment that a person, party, firm, corporation, Town, or other legal entity has in the land of another. Maintenance of easements is the sole responsibility of the property owner.

(30) "Engineer" or "Professional Engineer." An Engineer duly registered, licensed or otherwise authorized by the State of Tennessee to practice in the field of civil engineering.

(31) "Erosion." The removal of soil particles by the action of water, wind, ice, gravity, or other geological agents, whether naturally occurring or acting in conjunction with or promoted by man-made activities or effects.

(32) "Erosion Prevention (EP)." Practices implemented to prevent, through shielding, binding or other mechanism(s), the suspension of Soil particles, often associated with Erosion Prevention and Sedimentation control.

(33) "Erosion and sediment control plan." A written plan (including drawings or other graphic representations) that is designed to minimize the accelerated erosion and sediment runoff at a site during construction activities.

(34) "Excavation." See Cut.

(35) "Existing Construction." Any Structure for which the "start of construction" commenced before the effective date of these regulations.

(36) "Existing Grade." The Slope or elevation of existing ground surface prior to Cutting or Filling.

(37) "Fill." Portion of land surface or area to which Soil, rock, or other materials have been or will be added; height above original ground surface after the material has been or will be added.

(38) "Finished Grade." The final Slope or elevation of the ground surface, after Cutting or Filling.

(39) "Flood or Flooding." Water from a river, Stream, watercourse, lake, or other body of standing water that temporarily overflows and inundates adjacent lands and which may affect other lands and activities through increased surface water levels and/or increased groundwater level.

(40) "Floodplain." The relatively flat or lowland area adjoining a river, Stream, watercourse, lake, or other body of standing water, which has been or may be covered temporarily by Floodwater. For purposes of this Title, the Floodplain is defined as the 100-year Floodplain having a one percent (1%) chance of being equaled or exceeded in any given year.

(41) "Floodway." That portion of the Stream Channel and adjacent Floodplain required for the passage or conveyance of a 100-year Flood discharge. The Floodway boundaries are placed to limit encroachment in the Floodplain so that a discharge can be conveyed through the Floodplain without materially increasing (less than one (1) foot) the water surface elevation at any point and without producing hazardous velocities or conditions. This is the area of significant depths and velocities and due consideration should be given to effects of Fill, loss of cross sectional flow area, and resulting increased water surface elevations.

(42) "Floor." The top surface of an enclosed area in a Building (including basement), i.e., top of slab in concrete slab construction or top of wood flooring in wood frame construction. The term does not include the floor of a garage used solely for parking vehicles.

(43) "Green Infrastructure." The interconnected network of natural areas and other open spaces that conserves natural ecosystem values and functions, sustains clean air and water, and provides environmental and community benefits.

(44) "Green Infrastructure Practices." Management measures that are designed, built and maintained to infiltrate, evapotranspire, harvest and/or use rainwater through the use of natural hydrologic features.

(45) "Greenways." Linear undeveloped areas linking various types of Development by such facilities as bicycle paths, footpaths, and bridle paths. Greenways are usually kept in their natural state except for the pathway and areas immediately adjacent to the pathway.

(46) "Groundwater." all naturally occurring water beneath the surface of the ground. Groundwater is in conveyance with the overlying surface water.

(47) "Highest Adjacent Grade." The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a Structure.

(48) "Hotspot"("priority area"). An area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater.

(49) "Illicit connections." Illegal and/or unauthorized connections to the Town's separate stormwater system whether or not such connections result in discharges into that system.

(50) "Illicit discharge." Any discharge to the Town's separate storm sewer system that is not composed entirely of stormwater and not specifically exempted under §4(3).

(51) “Impaired Waters”. Any segment of surface waters that has been identified by the Tennessee Department of Environment and Conservation (TDEC) as failing to support classified uses. The TDEC periodically compiles a list of such waters known as the “303(d) List”.

(52) “Impervious Surface.” A term applied to any ground or structural surface that water cannot penetrate or through which water penetrates with great difficulty.

(53) “Improved sinkhole.” a natural surface depression that has been altered in order to direct fluids into an opening to the subsurface (throat). An improved sinkhole is a type of injection well regulated under TDEC’s Underground Injection Control (UIC) program. Underground injection constitutes an intentional disposal of waste waters in natural depressions, open fractures, and crevices (such as those commonly associated with weathering of limestone/karst topography) and shall be adequately pre-treated prior to subsurface discharge.

(54) “Infiltration.” means the process of surface runoff seeping/soaking into the soils rather than flowing into a detention basin, sinkhole, open fracture, or stream. Only suitable soils, determined by a qualified soil engineer or soil scientist, can serve as media used for infiltration. Infiltration areas shall be protected from any disturbance during construction by use of an orange, plastic barricade construction fence.

(55) “Inspector.” a person that has successfully completed (has a valid certification from) the “Fundamentals of Erosion Prevention and Sediment Control, Level I” course or equivalent course. An inspector performs and documents the required inspections, paying particular attention to time-sensitive permit requirements, such as stabilization and maintenance activities. An inspector may also have the following responsibilities:

(a) oversee the requirements of other construction-related permits, such as Aquatic Resources Alteration Permit (ARAP) or Corps of Engineers permit for construction activities in or around waters of the state;

(b) update field SWPPP’s;

(c) conduct pre-construction inspection to verify that undisturbed areas have been properly marked and initial measures have been installed; and

(d) inform the permit holder of activities that may be necessary to gain or remain in compliance with the Construction General Permit (CGP) and other environmental permits.

(56) “Invasive Exotic Plants.” Plants that have been introduced from other regions and compete so successfully against natives plants that they can crowd out their competitors, thus providing a monoculture that discourages the growth of native plant species.

(57) “Land disturbing activity.” Any activity on property that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or

the existing soil topography. Land disturbing activities include, but are not limited to, development, re-development, demolition, construction, reconstruction, grading, filling, and excavation. Land disturbing activity does not include clearing and grubbing, unless such clearing and grubbing is within fifty (50) feet of a drainage way, wetland, stream bank, or body of water and in such instance prior to approval from the department of public works is required.

(58) "Landscape Architect." A Landscape Architect duly registered, licensed or otherwise authorized by the State of Tennessee to practice in the field of Landscape Architecture.

(59) "Land Surveyor." A Land Surveyor duly registered, licensed or otherwise authorized by the State of Tennessee to practice in the field of land surveying.

(60) "Maintenance." Any activity that is necessary to keep a stormwater facility in good working order so as to function as designed. Maintenance shall include complete reconstruction of a stormwater facility if reconstruction is needed in order to restore the facility to its original operational design parameters. Maintenance shall also include the correction of any problem on the site property that may directly impair the functions of the stormwater facility.

(61) "Maintenance agreement." A document recorded in the land property records that acts as a property deed restriction, and which provides for long-term maintenance of stormwater management practices and facilities.

(62) "Master Plan." Any study or plan prepared by or accepted by the Town of Smyrna that identifies solutions to water quantity or quality problems. Also known as basin study or plan, Flood management study or plan or water quality management study or plan.

(63) "Municipal Separate Storm Sewer System (MS4)." The conveyances owned or operated by the Town for the collection and transportation of stormwater, including the roads and streets and their drainage systems, catch basins, curbs, gutters, ditches, manmade and natural channels, and storm drains, and where the context indicates, it means the Town that owns the separate storm sewer system.

(64) "National Pollutant Discharge Elimination System Permit" or "NPDES Permit." A permit issued pursuant to 33 U.S.C. 1342.

(65) "Native Vegetation." The normal vegetation that grows or would reestablish normally after a disturbance. This does not include Invasive Exotic Plants.

(66) "Natural Ground Surface." The ground surface in its original state before any Grading, excavating, or Filling.

(67) "New Construction." Structures for which the "start of construction" commenced on or after the effective date of these regulations. The term also includes any subsequent improvements to such Structures.

(68) "NRCS." National Resources Conservation Service.

(69) "Off-site facility." A structural BMP located outside the subject property boundary described in the permit application for land development activity.

(70) "On-site facility." A structural BMP located within the subject property boundary described in the permit application for land development activity.

(71) "Peak flow." The maximum instantaneous rate of flow of water at a particular point resulting from a storm event.

(72) "Permittee." Any person, firm, or any other legal entity to which a Site disturbance, Grading, Stormwater, Building or other related permit is issued in accordance with Town of Smyrna regulations.

(73) "Person." Any and all persons, natural or artificial, including any individual, firm or association, and any ~~county~~ municipal or private corporation organized or existing under the laws of this or any other state or country.

(74) "Pollutant." Anything which causes or contributes to pollution. Pollutants may include, but are not limited to, paints, varnishes, and solvents; oil and other automotive fluids; nonhazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded and abandoned objects, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes, wastes and residues that result from constructing a Building or Structure; Sediment; and noxious or offensive matter of any kind.

(75) "Priority area"--See "Hot spot." (§ 14-603(21) of this chapter).

(76) "Redevelopment." The alteration of developed land that adds 5,000 square feet of Impervious Surface area or more, or offers a new opportunity for Stormwater controls. Demolition and reconstruction is considered Development and not Redevelopment. Note: Redevelopment is not intended to include such activities as exterior remodeling, which would not be expected to cause adverse Stormwater quality impacts.

(77) "Retention." The prevention of storm runoff from direct discharge into receiving waters. Examples include Systems which discharge through percolation, exfiltration, filtered bleed-down and evaporation processes.

(78) "Riparian Buffer Zone" See Buffer Zone.

(79) "Riparian Zone." Areas adjacent to Water Resources with a differing density, diversity, and productivity of plant and animal species relative to nearby uplands. This area provides a transition from an aquatic ecosystem to a terrestrial ecosystem.

(80) "Runoff." That portion of the precipitation which lands on a drainage watershed area that is discharged from the area into the Town's separate stormwater system.

(81) "SCS." Soil Conservation Service now known as NRCS.

(82) "Sediment." Solid material, both mineral and organic, that is in suspension, or in bed load, is being transported, or has been moved from its site of origin by water, wind, ice, or gravity and has come to rest on the earth's surface either above or below sea level.

(83) "Sedimentation." The action of soil particles suspended in stormwater that settle in streambeds and can disrupt the natural flow of the stream and suffocate biota.

(84) "Sensitive Areas." Areas that supply critical habitat in supporting aquatic or semi-aquatic life such as Streams, sinkholes, springs, Wetlands, ponds, etc.

(85) "Slope." Degree of deviation of a surface from the horizontal, usually expressed in percent or ratio.

(86) "Soil." All unconsolidated mineral and organic material of any origin that overlies bedrock and that can be readily excavated.

(87) "Soil Engineer." A Professional Engineer who is qualified, licensed and/or registered in the State of Tennessee to practice applied Soil mechanics and foundation engineering.

(88) "Soils report." A study of soils on a subject property with the primary purpose of characterizing and describing the soils. The soils report shall be prepared by a qualified soils engineer or Tennessee Certified Soil Scientist, who shall be directly involved in the soil characterization either by performing the investigation or by directly supervising employees conducting the investigation.

(89) "Stabilization." Providing adequate measures, vegetative and/or structural, that will prevent or minimize erosion from occurring.

(90) "Steep Slope" A natural or created slope of 35% grade or greater. Designers of sites with steep slopes must pay attention to stormwater management in the SWPPP to engineer runoff nonerosively around or over a steep slope. In addition, site managers should focus on erosion prevention on the slope(s) and stabilize the slope(s) as soon as practicable to prevent slope failure and/or sediment discharges from the project.

(91) "Stop Work Order." An order directing the Developer and/or Permittee responsible for the Development to cease and desist all or any portion of the work which violates the provisions of this Title.

(92) "Stormwater." Stormwater runoff, snow melt runoff, surface runoff, street cleaning or maintenance, infiltration, and drainage.

(93) "Stormwater entity." the entity designated by the Town to administer the Stormwater Management Ordinance, and other stormwater rules and regulations adopted by the Town. More specifically, stormwater entity refers to the Stormwater Management Program coordinator or other Stormwater Management Program designee in their absence.

(94) "Stormwater management." The programs assigned to maintain quality and quantity of stormwater runoff to pre-development levels.

(95) "Stormwater management facilities." The drainage structures, conduits, ponds, ditches, combined sewers, sewers, and all device appurtenances by means of which stormwater is collected, transported, pumped, treated, or disposed of either manmade or natural.

(96) "Stormwater management plan." The set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMPs, concepts, and techniques intended to maintain or restore quality and quantity of stormwater runoff to pre-development levels.

(97) "Stormwater Pollution Prevention Plan (SWPPP)." means a written plan that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the stormwater, and a description of measures or practices to control these pollutants. It must be prepared and approved before construction begins. In order to effectively reduce erosion and sedimentation impacts, Best Management Practices (BMP's) must be designed, installed, and maintained during land disturbing activities. The SWPPP should be prepared in accordance with the current Tennessee Erosion and Sediment Control Handbook. The handbook is intended for use during the design and construction of projects that require erosion and sediment controls to protect waters of the state. It also aids in the development of SWPPPs and other reports, plans, or specifications required when participating in Tennessee's water quality regulations. All SWPPP's shall be prepared and updated in accordance with Section 3 of the General NPDES Permit for Discharges of Stormwater Associated with Construction Activities and submitted with the Notice of Intent (NOI) to TDEC.

(98) "Stormwater runoff." means water flow on the surface of the ground, resulting from precipitation.

(99) "Stormwater utility." The stormwater utility created by ordinance of the Town of Smyrna or other entity designated by the Town of Smyrna, to administer the stormwater management ordinance, and other stormwater rules and regulations adopted by the Town of Smyrna.

(100) "Stripping." Any activity that removes or significantly disturbs the vegetative surface cover, including clearing and grubbing operations.

(101) "Structural BMPs." ~~Devices-Facilities~~ that are constructed to provide control of stormwater runoff in accordance with current approved BMP manuals.

(102) "Structure." Anything constructed or erected, the use of which requires a permanent location on or in the ground. Such construction includes but is not limited to objects such as Buildings, towers, smokestacks, carports, and walls.

(103) "Surface water." Waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other watercourses, lakes, wetlands, marshes, [reservoirs](#), and [plugged](#) sinkholes.

(104) "TDEC." The Tennessee Department of Environment and Conservation .

(105) ["Top of Bank". The ordinary high water level and break in Slope for a Water Resource.](#)

(106) ["Town." The Town of Smyrna, Tennessee.](#)

(107) ["Town Engineer." Refers to the Town of Smyrna, Town Engineer or Public Works Director who has the authority to delegate to designated staff.](#)

(108) ["Waste site." means an area where waste material from a construction site is deposited. When the material is erodible, such as soil or spoils, the site must be treated as a construction site.](#)

(109) "Watercourse." or "Waterway." A permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

(110) ["Water Quality Buffer." see Buffer Zone.](#)

(111) ["Water Resources." Streams, seeps, springs, Wetlands, sinkholes, or lakes as determined by the Public Works Director or Town Engineer.](#)

(103) "Watershed." All land area that contributes runoff to a particular point ~~in a stream~~ along a waterway as well as the entire waterway.

(112) ["Waters or waters of the state" any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership, which do not combine or effect a junction with natural surface or underground waters.](#)

(113) ["Wetland\(s\)." those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted to life in saturated, hydric soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas.](#)

(114) ["Wet-weather conveyances." are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and are not suitable for drinking water supplies; and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow, there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months. \(Rules and Regulations of the State of Tennessee, Chapter 1200-4-3-.04\(3\)\).](#)

(Ord. #04-48, Jan. 2005, modified)

14-603. ~~Land disturbance~~Grading Permits. (1) Requirements. No Grading or Building Permit shall be issued until the applicant has submitted all required State and/or Federal permits which include but are not limited to a Notice of Coverage (NOC), Wetland Permit, Aquatic Resource Alteration Permit (ARAP), Injection Well Permit, and/or TDOT permit(s).

(2) Requirements. ~~(a)~~ Every person shall be required to obtain a ~~land disturbance~~Grading Permit from the State of Tennessee which will be utilized as the permit required by the Town of Smyrna ~~Engineering~~Public Works Department in the following cases:

(a) Land disturbing activity disturbs one (1) or more acres of land, unless exempted under Section 4(3);

(b) Land disturbing activity of less than one (1) acre of land if such activity is part of a larger common plan of development that affects one (1) or more acre of land;

(c) Land disturbing activity of less than one (1) acre of land, if, at the discretion of the Town of Smyrna ~~engineering~~Public Works Department, such activity poses a unique threat to water, public health, or safety; and

(d) The creation and use of borrow pits.

~~(2) Wetlands permit. No grading or building permit shall be issued until the applicant has obtained the appropriate wetlands permits from the U.S. Army Corps of Engineers and TDEC.~~

~~(3) Aquatic resource alteration program permit. No grading or building permit shall be issued until the applicant has obtained the appropriate Aquatic Resource Alteration Program (ARAP) permit from TDEC.~~

~~(4) Grading or building permits. No grading or building permit shall be issued until the applicant has obtained a land disturbance permit where the same is required by this ordinance.~~

(35) Exemptions. The following activities are exempt from the permit requirement:

(a) Any emergency activity that is immediately necessary for the protection of life, property, or natural resources;

(b) Existing nursery and agricultural operations conducted as a permitted main or accessory use;

(c) Any logging or farming activity that complies with conservation practices or timber management practices prepared or approved by the Rutherford County Soil Conservation District or University of Tennessee Agricultural Extension Service;

(d) Additions or modifications to existing single family structures.

| (46) Application for ~~land-disturbance~~grading permit. (a) Each application shall include the following:

(i) Name of applicant;

(ii) Business or residence address of applicant;

| (iii) Name, physical address, email address, and telephone number of the owner of the property of record in the office of the assessor of property;

(iv) Address and legal description of subject property including the tax map reference number and parcel number of the subject property;

| (v) Name, physical address, email address and telephone number of the contractor and any subcontractor(s) who will perform the land disturbing activity and who shall implement the erosion and sediment control plan;

(vi) A statement indicating the nature, extent, and purpose of the land disturbing activity including the size of the area for which the permit shall be applicable and a schedule for the starting and completion dates of the land disturbing activity;

(vii) Where the property includes a sinkhole, the applicant shall obtain the appropriate permits from TDEC, Division of Water Supply;

(viii) The applicant shall obtain from all other state or federal agencies any other appropriate environmental permits that pertain to the property. However, the inclusion of those permits in the application shall not foreclose the Town of Smyrna ~~Engineering-Public Works~~ Department from imposing additional development requirements and conditions, commensurate with this ordinance, on the development of property covered by those permits.

(ix) A pre-construction meeting with the Public Works Director, Town Engineer, or designee shall be held after all Erosion Protection Sediment Control (ESPC) measures have been installed, inspected, and approved by the Town prior to the issuance of a Grading Permit.

(x) Site Owner or Developer and/or contractor that wish to transfer Grading Permit coverage to a new Owner or Developer and/or contractor shall do so by applying for a Notice of Transfer request in the Town's Public Works Department. The Site Owner or Developer shall also be required to transfer performance sureties to the New Site Owner or Developer prior to the Town of Smyrna approving the Notice of Transfer.

(b) Each application shall be accompanied by:

(i) An erosion and sediment control plan as described in § 14-606(5); and

(ii) A stormwater management plan as described in § 14-606(4), providing for stormwater management during the land disturbing activity and after the activity has been completed.

(c) The Permittee(s) shall be responsible for all EPSC measures and maintenance located within the sites or sections defined in the permit regardless of individual lot ownership until a Notice of Transfer is issued by the Town of Smyrna Public Works Department.

(57) Review and approval of application. (a) The Town of Smyrna ~~Engineering-Public Works~~ Department will review each application for a ~~land disturbancegrading~~ permit to determine its conformance with the provisions of this ordinance. Within fourteen (154) working days after receiving an application, the ~~engineering-Public Works De~~partment shall provide one of the following responses in writing:

(i) Approval of the permit application;

(ii) Approval of the permit application, subject to such reasonable conditions as may be necessary to substantially secure the objectives of this ordinance, and issue the permit subject to these conditions; or

(iii) Denial of the permit application, indicating the reason(s).

(b) If the ~~engineering~~ Public Works Department has granted conditional approval of the permit, the applicant shall submit a revised plan that conforms to the conditions established by the department. However, the applicant shall be allowed to proceed with ~~his-their land disturbinggrading~~ activity, so long as it conforms to conditions established by the department. The revised plan shall be submitted to the ~~engineering~~ Public Works Department within ten (105) working days from the date of conditional approval.

(c) No ~~development~~ construction plans will be released until the ~~land-disturbancegrading~~ permit has been approved.

(68) Permit duration. Every ~~land-disturbancegrading~~ permit shall expire and become null and void if substantial work authorized by such permit has not commenced within one hundred and eighty (180) calendar days of issuance, or is not complete within eighteen (18) months from the date of the commencement of construction.

(79) Notice of construction inspections. ~~The applicant must notify the Town of Smyrna Engineering Department in writing ten (10) working days in advance of the commencement of construction. Once a Grading Permit is issued,~~ tThe department shall conduct regular inspections of the stormwater management system construction. All inspections shall be documented and written reports prepared that contain the following information:

- (a) The date and location of the inspection;
- (b) Whether construction is in compliance with the approved stormwater management plan;
- (c) Variations from the approved construction specifications; and
- (d) Any violations that may exist.

(108) Performance agreement/letter of credit. (a) The Town of Smyrna ~~Engineering~~ Public Works Department may, at its discretion, require the submittal of a performance agreement/letter of credit prior to issuance of a permit in order to ensure that the stormwater practices are installed by the permit holder as required by the approved stormwater management plan. The amount of the installation performance agreement/letter of credit shall be the total estimated construction cost of the structural BMPs approved under the permit plus any reasonably foreseeable additional related costs, e.g., for damages or enforcement. The performance agreement/letter of credit shall contain forfeiture provisions for failure to complete work specified in the stormwater management plan. The applicant shall provide an itemized construction cost estimate complete with unit prices, which shall be subject to

acceptance, amendment, or rejection by the ~~engineering-public works~~ department. Alternatively, the ~~engineering-public works~~ department shall have the right to calculate the construction cost estimates.

(i) The performance agreement/letter of credit shall be released in full only upon submission of as-built plans and written certification by a registered professional engineer licensed to practice in the State of Tennessee that the structural BMP has been installed in accordance with the approved plan and other applicable provisions of this ordinance. The Town of Smyrna ~~Engineering-Public Works~~ Department will make a final inspection of the Structural BMP to ensure that it is in compliance with the approved plan and the provisions of this ordinance. Provisions for a partial pro-rata reduction of the performance agreement/letter of credit based on the completion of various development stages can be made at the discretion of the ~~engineering-public works~~ department. (Ord. #04-48, Jan. 2005)

~~14-605(8) Waivers. (1) General. No waivers will be granted to any construction or site work project. All construction and site work shall provide for stormwater management as required by this ordinance. However, alternatives to the 2010 NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems primary requirement for on-site permanent stormwater management may be considered, if:~~

~~(a) Management measures cannot be designed, built and maintained to infiltrate, evapotranspire, harvest and/or use, at a minimum, the first inch of every rainfall event preceded by 72 hours of no measurable precipitation. This remainder of the first inch of rainfall must be 100% managed with no discharge to surface waters as per section 14-604.6~~

~~(b) It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of this chapter. Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by the Town. Every applicant shall provide for storm water management as required by this ordinance, unless a written request is filed to waive this requirement. Requests to waive these requirements shall be submitted to the Town of Smyrna Engineering Department for approval.~~

~~(2) Conditions for waiver. The minimum requirements for storm water management may be waived in whole or in part upon written request of the applicant, provided that at least one of the following conditions applies:~~

~~(a) It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of this ordinance;~~

~~(b) — Alternative minimum requirements for on-site management of storm water discharges have been established in a storm water management plan that has been approved by the engineering department; or~~

~~(c) — Provisions are made to manage storm water by an off-site facility. The off-site facility shall be in place and designed to provide the level of storm water control that is equal to or greater than that which would be afforded by on-site practices. Further, the facility must be operated and maintained by an entity that is legally obligated to continue the operation and maintenance of the facility.~~

(2) Downstream damage, etc. prohibited. In order to receive a waiver consideration, the applicant ~~shall~~ must demonstrate, to the satisfaction of the ~~engineering department~~ Public Works Department, the ~~waiver proposed alternative~~ will not lead to any of the following conditions downstream:

(a) Deterioration of existing culverts, bridges, dams, and other structures;

(b) Degradation of biological functions or habitat;

(c) Accelerated stream bank or streambed erosion or siltation;

or

(d) Increased threat of flood damage to public health, life, or property.

(3) ~~Land disturbance~~ Grading P permit not issued where waiver requested. No ~~land disturbance~~ Grading P permit shall be issued where an ~~waiver alternative~~ has been requested until the ~~waiver alternative~~ is approved ~~granted~~. If no ~~waiver alternative~~ is granted ~~approved~~, the plans ~~shall~~ must be resubmitted with a stormwater management plan that meets the primary requirement for on-site stormwater management section 14-604.6. (Ord. #04-48, Jan. 2005)

14-6046. Stormwater system design: Construction and Permanent stormwater management standards.

(1) MS4 Stormwater design or BMP manuals, and Illicit Discharge Detecton and Elimination. (a) Adoption. The Town of Smyrna adopts as its MS4 stormwater design and BMP manuals for stormwater management, construction and permanent, the following publications (as such publications may hereafter be amended and/or restated from time to time), which are incorporated by reference in this ordinance as is fully set out herein:

(i) Town of Smyrna Subdivision Regulations (as adopted and/or amended from time to time by the Smyrna Municipal Planning Commission), and including specifically, but not limited to, the Town of Smyrna Water Quality Buffer Zone Policy and the Town of Smyrna Dry Detention Basin Policy.

(ii) TDEC Erosion Prevention and Sediment Control Manual~~Handbook~~; most current edition.

(iii) Guide to the Selection and Design of Stormwater Best Management Practices: A Guide for Phase II MS4 Communities for Protecting Post-Construction Stormwater Quality and Managing Stormwater Flow, with the exception that Appendices A, B, C, and D are expressly excluded from adoption and reference herein.

(iv) TDEC Tennessee Permanent Stormwater Management and Design Manual.

(v) Nashville-Davidson County Metro Stormwater Management Manual (BEST MANAGEMENT PRACTICES (BMP) MANUAL - Volume 4); most current edition.

(vi) Nashville-Davidson County Low Impact Development Stormwater Management Manual, volume 5.

(vii) Collection of MS4 approved BMP's developed or collected by the MS4 that comply with the goals of the MS4 permit and/or the CGP.

(viii) EPA Illicit Discharge Detection and Elimination Manual; most current addition.

(b) The Town's BMPse manual(s) include ~~policies for dry detention basin design and water quality buffer zones and~~ a list of acceptable BMPs, including the specific design performance criteria and operation and maintenance requirements for each stormwater practice. These include Town approved BMP's for permanent stormwater management, including green infrastructure BMP's.

(c) The ~~Storm Water Design and BMP~~Town's mManual(s) may be updated and expanded from time to time, at the discretion of the Smyrna Town Council, upon the recommendation of the Town of Smyrna Engineering-Public Works Department, based on improvements in engineering, science, monitoring, and local maintenance experience, or changes in federal or state law or regulation. Stormwater facilities that are designed, constructed, and maintained in accordance with these BMP criteria will be presumed to meet the minimum water quality performance standards.

(2) Land development. This section shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, and grading permit applications. These standards apply to any new development or redevelopment site that meets one or more of the following criteria:

(a) One (1) acre or more;

- (i) New development that involves land development activities of one (1) acre or more;
 - (ii) Redevelopment that involves other land development activity of one (1) acre or more;
- (b) Projects or developments of less than one acre of total land disturbance may also be required to obtain authorization under this ordinance if:
 - (i) the stormwater entity has determined that the stormwater discharge from a site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard;
 - (ii) the stormwater entity has determined that the stormwater discharge is, or is likely to be a significant contributor of pollutants to waters of the state;
 - (iii) changes in state or federal rules require sites of less than one acre that are not part of a larger common plan of development or sale to obtain a stormwater permit;
 - (iv) Any new development or redevelopment, regardless of size, that is defined by the stormwater entity to be a hotspot land use; or
 - (v) Minimum applicability criteria set forth in item (a) above if such activities are part of a larger common plan of development even multiple that is part of a separate and distinct land development activity that may take place at different times on different schedules.

Note: Any discharge of stormwater or other fluid to an existing sinkhole or other injection well, as defined, must be authorized by permit or be ruled as a Class V Underground Injection well under the provisions of Tennessee Department of Environment and Conservation (TDEC) Rules, Chapter 1200-4-6.

(3) Submittal of a copy of the NOC, SWPPP, and NOT to the local MS4:

Permittees who discharge stormwater through an NPDES-permitted municipal separate storm sewer system (MS4), who are not exempted in section 1.4.5 (Permit Coverage through Qualifying Local Program) of the Construction General Permit (CGP) must provide proof of coverage under the Construction General Permit (CGP); submit a copy of the Stormwater Pollution Prevention Plan (SWPPP); and at project completion, a copy of the signed Notice of Termination (NOT) to the stormwater entity. Permitting status of all permittees covered (or previously covered) under this general permit as well as the most

current list of all MS4 permits is available at the TDEC's DataViewer website. Copies of additional applicable local, state, or federal permits (i.e. ARAP, etc.) must also be provided upon request. If requested, these permits must be provided before the issuance of any grading permit or the equivalent.

(4) Stormwater Pollution Prevention Plan (SWPPP) for Construction Stormwater Management: The applicant must prepare a stormwater pollution prevention plan for all construction activities that complies with subsection (5) below. The purpose of this plan is to identify construction/contractor activities that could cause pollutants in the stormwater, and to describe measures or practices to control these pollutants during project construction.

(5) Stormwater Pollution Prevention Plan requirements. The Erosion Prevention and Sediment Control Plan component of the SWPPP shall accurately describe the potential for soil erosion and sedimentation problems resulting from grading activity and shall explain and illustrate the measures that are to be taken to control these problems. The length and complexity of the plan is to be commensurate with the size of the project, severity of the site condition, and potential for off-site damage. If necessary, the plan shall be phased so that changes to the site during construction, which alter drainage patterns or characteristics, will be addressed by an appropriate phase of the plan. The plan shall be sealed by a registered professional engineer or landscape architect licensed in the State of Tennessee. The plan shall conform to the requirements found in the TDEC General NPDES Permit for Construction Activities, MS4 BMP manuals, and shall include at least the following:

(a) Project description - Briefly describe the intended project and proposed land disturbing activity including number of units and structures to be constructed and infrastructure required.

(b) A topographic map with contour intervals of five (5) feet or less showing present conditions and proposed contours resulting from land disturbing activity.

(c) All existing drainage ways, including intermittent and wet-weather. Include any designated floodways or flood plains. Include any designated floodways or flood plains whether published by the Federal Emergency Management Agency (FEMA) or as designated by sound engineering practices and hydraulic calculations.

(d) A general description of existing land cover. Individual trees and shrubs do not need to be identified.

(e) Stands of existing trees as they are to be preserved upon project completion, specifying their general location on the property. Differentiation shall be made between existing trees to be preserved, trees to be removed and

proposed planted trees. Tree protection measures must be identified, and the diameter of the area involved must also be identified on the plan and shown to scale. Information shall be supplied concerning the proposed destruction of exceptional and historic trees in setbacks and buffer strips, where they exist. Complete landscape plans may be submitted separately. The plan must include the sequence of implementation for tree protection measures.

(f) Approximate limits of proposed clearing, grading, and filling.

(g) Approximate flows of existing stormwater leaving any portion of the site.

(h) A general description of existing soil types and characteristics and any anticipated soil erosion and sedimentation problems resulting from existing characteristics.

(i) Location, size, and layout of proposed stormwater and sedimentation control improvements.

(j) Existing and proposed drainage network.

(k) Proposed drain tile or waterway sizes.

(l) Approximate flows leaving site after construction and incorporating water run-off mitigation measures. The evaluation must include projected effects on property adjoining the site and on existing drainage facilities and systems. The plan must address the adequacy of outfalls from the development: when water is concentrated, what is the capacity of waterways, if any, accepting stormwater off-site; and what measures, including infiltration, sheeting into buffers, etc., are going to be used to prevent the scouring of waterways and drainage areas off-site, etc.

(m) The projected sequence of work represented by the grading, drainage, and sedimentation and erosion control plans as related to other major items of construction, beginning with the initiation of excavation and including the construction of any sediment basins or retention/detention facilities or any other structural BMP's.

(n) Specific remediation measures to prevent erosion and sedimentation run-off. Plans shall include detailed drawings of all control measures used; stabilization measures including vegetation and non-vegetation measures, both temporary and permanent, will be detailed. Detailed construction notes and a maintenance schedule shall be included for all control measures in the plan.

(o) Specific details for: the construction of stabilized construction entrance/exits, concrete washouts, check dams, rock rings, storm drain protection, and sediment basins for controlling erosion; road access points; eliminating or keeping soil, sediment, and debris on streets and public ways at a level acceptable to the Town. Soil, sediment, and debris brought onto streets and public ways must be removed by the end of the work day to the satisfaction

of the Town. Failure to remove the sediment, soil, or debris/litter shall be deemed a violation of this ordinance.

(p) Proposed structures: location and identification of any proposed additional buildings, structures, or development on the site.

(q) A description of on-site measures to be taken to recharge surface water into the groundwater system through runoff reduction practices.

(r) Specific details for construction waste management. Construction site operators shall control waste, such as discarded building materials, concrete truck washout, petroleum products, and petroleum related products, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality. When the material is erodible, such as soil or spoils, the site must be treated as a construction site. Containment pits for fuel and other fluids kept on site shall have 110% containment.

(6) General design performance criteria for permanent stormwater management: The following performance criteria shall be addressed for permanent stormwater management at all development sites:

(a) **Applicable to all sites approved prior to April 29, 2016.** All sites shall control the first flush storm event (0.5-inch) as specified in this ordinance or in the approved BMP Manuals and Water Quality Buffer Zone Policy. These practices shall seek to utilize impervious areas for stormwater treatment and to infiltrate stormwater runoff from driveways, sidewalks, rooftops, parking lots and landscaped areas to the maximum extent practical to provide treatment for both water quality and quantity.

Applicable to all sites approved after April 29, 2016. Site design standards for all new and redevelopment require, in combination or alone, management measures that are designed, built, and maintained to infiltrate, evapo-transpire, harvest, and/or use, at a minimum, the first inch of every rainfall event preceded by 72 hours of no measurable precipitation. This first inch of rainfall must be 100% managed with no discharge to surface waters.

(b) Limitations to the application of runoff reduction requirements include, but are not limited to:

(i) Where a potential for introducing pollutants into the groundwater exists, unless pretreatment is provided;

(ii) Where pre-existing soil contamination is present in areas subject to contact with infiltrated runoff;

(iii) Presence of sinkholes or other karst features.

(c) Pre-development infiltrative capacity of soils at the site must be taken into account in selection of runoff reduction management measures.

- (d) For projects that cannot meet 100% of the runoff reduction requirement, the remainder of the stipulated amount of rainfall must be treated prior to discharge with a technology documented to remove 80% total suspended solids (TSS) unless an alternative provided under this ordinance is approved. The treatment technology must be designed, installed and maintained by the property owner or Home Owner's Association (HOA) to continue to meet this performance standard.
 - (e) To protect stream channels from degradation, specific channel protection criteria shall be provided as prescribed in the MS4 BMP manuals and the Water Quality Buffer Zone policy.
 - (f) Stormwater discharges to critical areas with sensitive resources (i.e., sinkholes, wetlands, cold water fisheries, shellfish beds, swimming beaches, recharge areas, water supply reservoirs) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.
 - (g) Stormwater discharges from hot spots may require the application of specific structural BMP's and pollution prevention practices. In addition, stormwater from a hot spot land use may not be infiltrated.
 - (h) Prior to or during the site design process, applicants for grading permits shall consult with the stormwater entity to determine if they are subject to additional stormwater design requirements.
 - (i) The calculations for determining peak flows as found in the subdivision regulations shall be used for sizing all stormwater facilities.
- (7) Minimum volume control requirements. The following performance criteria shall be addressed for permanent stormwater management at all development sites:
 - (a) Stormwater designs shall meet the multi-stage storm frequency storage requirements as identified in the subdivision regulations. All sites shall control peak flow rates of stormwater discharge associated with the design storms specified in the subdivision regulations and reduce the generation of post-construction stormwater runoff to a minimum of pre-construction levels.
 - (b) If hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the stormwater entity may impose any and all additional requirements deemed necessary to control the volume, timing, release velocities, and rate of runoff.
- (8) Permanent Stormwater Management Plan requirements. The Stormwater Management Plan shall include sufficient information to allow the stormwater entity to evaluate the environmental characteristics of the

project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, and the effectiveness and acceptability of the measures proposed for managing stormwater generated at the project site. To accomplish this goal, the Stormwater Management Plan shall include the following:

(a) Topographic base map: Topographic base map of the site which extends a minimum of 100 feet beyond the limits of the proposed development and indicates:

(i) Existing surface water drainage, including streams, ponds, culverts, ditches, sinkholes, wetlands; and the type, size, elevation, etc., of nearest upstream and downstream drainage structures;

(ii) Topographic contours at a reasonable interval to infer surface water flow patterns.

(iii) Current land use, including all existing structures, locations of utilities, roads, and easements;

(iv) All other existing significant natural and artificial features;

(v) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; the limits of clearing and grading.

(b) BMP: Proposed structural and non-structural BMP's;

(c) Description: A written description of the site plan and justification of proposed changes in natural conditions may also be required;

(d) Calculations: Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the subdivision regulations. These calculations must show that the proposed stormwater management measures are capable of controlling runoff from the site in compliance with this chapter and the guidelines of the subdivision regulations. Such calculations shall include:

(i) A description of the design storm frequency, duration, and intensity where applicable;

(ii) Time of concentration;

(iii) Soil curve numbers or runoff coefficients, including assumed soil moisture conditions;

(iv) Peak runoff rates and total runoff volumes for each watershed area;

(v) Infiltration rates, where applicable;

(vi) Culvert, stormwater sewer, ditch and/or other stormwater conveyance capacities;

(vii) Flow velocities;

(viii) Data on the increase in rate and volume of runoff for the design storms referenced in the subdivision regulations; and

(ix) Documentation of sources for all computation methods and field test results.

(e) Soils information: If a stormwater management control measure depends on the hydrologic properties of soils (e.g. detention / infiltration basins) then a soils report, investigated and reported by a *Tennessee Certified Soil Scientist or Soils Engineer*, shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles and soil survey reports to include at a minimum depth to seasonal high groundwater table elevation (if encountered), groundwater table elevation (if encountered), depth to bedrock, and hydraulic soil group. If infiltration is used during stormwater design in-situ infiltration rates must be provided. 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 soil types present at the location of the control measure. At least one (1) soil boring or soil pit will be installed within the vicinity of the proposed stormwater management facility.

(f) Gutter spread Requirements: Gutter spread within new, widened, and extended roadways is limited to ½ the travel lane as specified in the Subdivision Regulations.

(9) Maintenance and repair plan: The design and planning of all permanent stormwater management facilities including detention basins shall include detailed maintenance and repair procedures to ensure their continued performance. These plans will identify the parts or components of a stormwater management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan. A permanent elevation benchmark shall be identified in the plans to assist in the inspection of the facility. All common space containing components such as detention basin or other permanent BMPs must be managed by a Homeowner's Association (HOA), Condominium Association, or other property management company. The applicant shall present a detailed plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.

(10) Maintenance easements. The applicant shall ensure access to the site for the purpose of inspection and repair by securing all the maintenance easements needed. These easements shall be binding on the current property owner and all subsequent owners of the property and shall be properly recorded with the Rutherford County Register of Deeds in perpetuity.~~(2) General performance criteria for storm water management. Unless granted a waiver or judged by the engineering department to be exempt, the following performance criteria shall be addressed for storm water management at all sites:~~

~~(a) All site designs shall control the peak flow rates of storm water discharge associated with design storms specified in this ordinance or in the Town of Smyrna Subdivision Regulations and reduce the generation of post-construction storm water runoff to a minimum of pre-construction levels. 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;~~

~~(b) To protect stream channels from degradation, specific channel protection criteria shall be provided as prescribed in the BMP manual;~~

~~(c) Storm water discharges to critical areas with sensitive resources (i.e., cold water fisheries, shellfish beds, swimming beaches, recharge areas, and water supply reservoirs and intakes) may be subject to additional performance criteria, or may need to utilize or restrict certain storm water management practices;~~

~~(d) Storm water discharges from hot spots may require the application of specific Structural BMPs and pollution prevention practice;~~

~~(e) Prior to or during the site design process, applicants for land disturbance permits shall consult with the engineering department to determine if they are subject to additional storm water design requirements; and~~

~~(f) The calculations for determining peak flows as found in the Town of Smyrna Subdivision Regulations shall be used for sizing all storm water facilities.~~

~~(3) Minimum control requirements. (a) Storm water designs shall meet the multi-stage storm frequency storage requirements as identified in the Town of Smyrna Subdivision Regulations unless the engineering department has granted the applicant a full or partial waiver for a particular regulation under § 14-605.~~

~~(b) If hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the engineering department may impose any and all additional requirements deemed necessary to control the volume, timing, and rate of runoff.~~

~~(4) Storm water management plan requirements. The storm water management plan shall include sufficient information to allow the engineering department to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, and the effectiveness and acceptability of the measures proposed for managing storm water generated at the project site. To~~

~~accomplish this goal the storm water management plan shall include the following:~~

~~(a)——Topographic Base Map: A 1"=200' topographic base map of the site which extends a minimum of 500 feet beyond the limits of the proposed development and indicates:~~

~~(i)——Existing surface water drainage including streams, ponds, culverts, ditches, sinkholes, wetlands; and the type, size, elevation, etc., of nearest upstream and downstream drainage structures;~~

~~(ii)——Current land use, including all existing structures, locations of utilities, roads, and easements;~~

~~(iii)——All other existing significant natural and artificial features;~~

~~(iv)——Proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; and the limits of clearing and grading;~~

~~(v)——Proposed Structural BMPs; and~~

~~(vi)——A written description of the site plan and justification of proposed changes in natural conditions may also be required.~~

~~(b)——Calculations. Hydrologic and hydraulic design calculations for the predevelopment and post-development conditions for the design storms specified in the Town of Smyrna Subdivision Regulations. These calculations shall show that the proposed storm water management measures are capable of controlling runoff from the site in compliance with this ordinance and the guidelines of the Town of Smyrna Subdivision Regulations. Such calculations shall include:~~

~~(i)——A description of the design storm frequency, duration, and intensity where applicable;~~

~~(ii)——Time of concentration;~~

~~(iii)——Soil curve numbers or runoff coefficients, including assumed soil moisture conditions;~~

~~(iv)——Peak runoff rates and total runoff volumes for each watershed area;~~

~~(v)——Infiltration rates, where applicable;~~

~~(vi)——Culvert, storm water sewer, ditch, and/or other storm water conveyance capacities;~~

~~(vii)——Flow velocities;~~

~~(viii)——Data on the increase in rate and volume of runoff for the design storms referenced in the Town of Smyrna Subdivision Regulations; and~~

~~(ix) Documentation of sources for all computation methods and field test results.~~

~~(e) Soils Information. If a storm water management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles and soil survey reports. 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 soil types present at the location of the control measure.~~

~~(d) Maintenance and repair plan. The design and planning of all storm water management facilities shall include detailed maintenance and repair procedures to ensure their continued performance. These plans will identify the parts or components of a storm water management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan. A permanent elevation benchmark shall be identified in the plans to assist in the inspection of the facility.~~

~~(e) Landscaping plan. The applicant shall present a detailed plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. Where it is required by the BMP, this plan must be prepared by a registered landscape architect licensed in the State of Tennessee.~~

~~(f) Maintenance easements. The applicant shall ensure access to the site for the purpose of inspection and repair by securing all the maintenance easements needed. These easements shall be binding on the current property owner and all subsequent owners of the property and shall be properly recorded with the Rutherford County Register of Deeds in perpetuity.~~

~~(g) Maintenance Agreement. (i) The owner of property to be served by an on-site storm water management facility shall execute an inspection and maintenance agreement that shall operate as a deed restriction binding on the current property owner and all subsequent property owners.~~

~~(ii) The maintenance agreement shall:~~

~~(A) Assign responsibility for the maintenance and repair of the storm water facility to the owner of the property upon which the facility is located and be recorded as such on the plat for the property by appropriate notation;~~

~~(B) Provide for a periodic inspection by the property owner for the purpose of documenting maintenance and repair needs and ensure compliance with the purpose and requirements of this ordinance. The property owner will arrange for this inspection to be conducted by a person certified by TDEC through the Tennessee Erosion Prevention and Sediment Control Training and Certification Program who will submit a sealed report of the inspection to the engineering department. It shall also grant permission to the Town of Smyrna to enter the property at reasonable times and to inspect the storm water facility to ensure that it is being properly maintained;~~

~~(C) Provide that the minimum maintenance and repair needs include, but are not limited to: the removal of silt, litter, and other debris, the cutting of grass, grass cuttings and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, and inlets and drainage pipes and any other storm water facilities. It shall also provide that the property owner shall be responsible for additional maintenance and repair needs consistent with the needs and standards outlined in the BMP manual;~~

~~(D) Provide that maintenance needs shall be addressed in a timely manner, on a schedule to be determined by the engineering department; and~~

~~(E) Provide that if the property is not maintained or repaired within the proscribed schedule, the engineering department shall perform the maintenance and repair at its expense, and bill the same to the property owner. The maintenance agreement shall also provide that the engineering department's cost of performing the maintenance shall be a lien against the property.~~

~~(iii) The Town of Smyrna shall have the discretion to accept the dedication of any existing or future storm water management facility, provided such facility meets the requirements of this ordinance, and includes adequate and perpetual access and sufficient areas, by easement or otherwise, for inspection and regular maintenance. Any storm water facility accepted by the Town of Smyrna must also meet the town's construction standards and any other standards and specifications that apply to the particular storm water facility in question.~~

~~(h) — Erosion and sediment control plans. The applicant shall prepare an erosion and sediment control plan for all construction activities that complies with the following, § 14-606(5).~~

~~(5) — Erosion and sediment control plan requirements. The erosion and sediment control plan shall accurately describe the potential for soil erosion and sedimentation problems resulting from land disturbing activity and shall explain and illustrate the measures that are to be taken to control these problems. The length and complexity of the plan is to be commensurate with the size of the project, severity of the site condition, and potential for offsite damage. A registered professional engineer licensed in the State of Tennessee shall seal the plan. The plan shall also conform to the requirements found in the BMP manual, and shall include, at a minimum, the following:~~

~~(a) — Project description. Briefly describe the intended project and proposed land disturbing activity, including number of units and structures to be constructed and infrastructure required;~~

~~(b) — A topographic map with contour intervals of five (5) feet or less showing present conditions and proposed contours resulting from land disturbing activity;~~

~~(c) — All existing drainage ways, including intermittent and wet weather, or sinkholes. Include any designated floodways or flood plains;~~

~~(d) — A general description of existing land cover. Individual trees and shrubs do not need to be identified;~~

~~(e) — Stands of existing trees as they are to be preserved upon project completion, specifying their general location on the property. Differentiation shall be made between existing trees to be preserved, trees to be removed, and proposed planted trees. Tree protection measures must be identified, and the diameter of the area involved shall also be identified on the plan and shown to scale. Information shall be supplied concerning the proposed destruction of exceptional and historic trees in setbacks and buffer strips, where they exist. Complete landscape plans may be submitted separately. The plan shall include the order of implementation for tree protection efforts;~~

~~(f) — Approximate limits of proposed clearing, grading, and filling;~~

~~(g) — Approximate flows of existing storm water leaving any portion of the site;~~

~~(h) — A general description of existing soil types and characteristics and any anticipated soil erosion and sedimentation problems resulting from existing characteristics;~~

~~(i) — Location, size, and layout of proposed storm water and sedimentation control improvements;~~

~~(j) — Proposed drainage network;~~

~~(k) — Proposed drain tile or waterway sizes;~~

~~(l) — Approximate flows leaving site after construction and incorporating water runoff mitigation measures. The evaluation shall include projected effects on property adjoining the site and on existing drainage facilities and systems. The plan shall address the adequacy of outfalls from the development: when water is concentrated, what is the capacity of waterways, if any, accepting storm water offsite; and what measures, including infiltration, sheeting into buffers, etc., will be used to prevent the scouring of waterways and drainage areas off site, etc.;~~

~~(m) — The projected sequence of work represented by the grading, drainage, and erosion and sedimentation control plans as related to other major items of construction, beginning with the initiation of excavation and including the construction of any sediment basins, detention or retention facilities, or any other structural BMPs;~~

~~(n) — Specific remediation measures to prevent erosion and sedimentation runoff. Plans shall include detailed drawings of all control measures used; stabilization measures including vegetation and non-vegetation measures, both temporary and permanent, shall be detailed. Detailed construction notes and a maintenance schedule shall be included for all control measures in the plan;~~

~~(o) — Specific details for: the construction of rock pads, wash down pads, and settling basins for controlling erosion; road access points; eliminating or keeping soil, sediment, and debris on streets and public ways at a level acceptable to the engineering department. Soil, sediment, and debris brought onto streets and public ways shall be removed by the end of the workday by machine, broom, or shovel to the satisfaction of the engineering department. Failure to remove the sediment, soil, or debris shall be deemed a violation of this ordinance;~~

~~(p) — Proposed structures, location (to the extent possible) and identification of any proposed additional buildings, structures, or development on the site; and~~

~~(q) — A description of on-site measures to be taken to recharge surface water into the groundwater system through infiltration. (Ord. #04-48, Jan. 2005)~~

14-6057. Post constructionPermanent stormwater management: operation, maintenance, and inspection. (1) As-built plans. All applicants are required to submit actual as-built plans for any structures located on-site after final construction is completed. The plan ~~shall~~must show the final design specifications for all stormwater management facilities and ~~shall~~must be sealed by a registered professional engineer licensed to practice in the State of Tennessee. A final inspection by the engineering Public Works Department is required before any performance agreement/letter of credit will be released. The

~~engineering-Public Works De~~partment shall have the discretion to adopt provisions for a partial pro-rata reduction of the performance agreement/letter of credit on the completion of various stages of development. In addition, occupation permits certificate of occupation permits or signing of the final plat ~~shall-may~~ not be granted until corrections to all BMPs have been made and accepted by the ~~engineering-Public Works De~~partment.

- (2) Landscaping and stabilization requirements. (a) Any area of land from which the natural vegetative cover has been either partially or ~~wholly-entirely~~ cleared by development activities shall be revegetated according to a schedule approved by the Town of Smyrna ~~Engineering Public Works~~ Department. Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased. Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed no later than 15 days after the construction activity in that portion of the site has temporarily or permanently ceased. In the following situations, temporary stabilization measures are not required:
- (i) where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions or adverse soggy ground conditions, stabilization measures shall be initiated as soon as practicable; or
 - (ii) where construction activity on a portion of the site is temporarily ceased, and grading will be resumed within 15 days.
 - (iii) Areas of steep slope that have not been worked in 7 days must be stabilized.

(b) Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable. Unpacked gravel containing fines (silt and clay sized particles) or crusher runs will be considered an eroding surface.

- (c) The following criteria shall apply to revegetation efforts:
- (i) Reseeding ~~shall-must~~ be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over ninety percent (90%) of the seeded area.
 - (ii) Placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion shall accompany replanting with native woody and herbaceous vegetation;
 - (iii) Any area of re-vegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop

throughout the year immediately following re-vegetation or exhibit no erosion based on [engineering Public Works Department](#) field review. Re-vegetation shall be repeated in successive years until the aforementioned criteria are achieved. If erosion should occur anywhere on-site it should be repaired to the satisfaction of the [engineering Public Works Department](#).

(b) [In accordance with the TDEC's General Construction Permit, an Erosion Prevention and Sediment Control \(EPSC\) plan must](#) ~~In addition to the above requirements, a landscaping plan shall be~~ submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover. [general landscaping, and landscaping located around the perimeter of the detention and retention basin are](#) ~~is~~ preserved.

(3) [Inspection of stormwater management facilities.](#) Periodic inspections of facilities shall be [documented, and reported in accordance with this chapter, as detailed in §14-606.3.](#) ~~performed as provided for in § 14-506(4)(g)(ii)(B) of this chapter.~~

(4) [Records of installation and maintenance activities.](#) Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation of the stormwater facility, and of all maintenance and repairs to the facility, and shall retain the records for at least ~~five-three (35)~~ years. [These records shall be made available to the Town during inspection of the facility and at other reasonable times upon request.](#)

(5) [Failure to meet or maintain design or maintenance standards.](#) If a responsible party fails or refuses to meet the design or maintenance standards required for stormwater facilities under this ordinance, the [engineering Public Works Department](#), after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the stormwater management facility becomes a danger to public safety or public health, the [engineering Public Works Department](#) shall notify, in writing, the party responsible for maintenance of the stormwater management facility. Upon receipt of that notice the responsible party shall have ~~twenty-onethirty (2130)~~ calendar days to effect maintenance and repair of the facility in an approved manner. In the event that corrective action is not undertaken within that time, the [engineering Public Works Department](#) may take necessary corrective action. The cost of any action by the [engineering Public Works Department](#)

under this section shall be charged to the responsible party. (Ord. #04-48, Jan. 2005)

(6) Stormwater Management on New Build Lots. Drainage on new construction build lots shall be managed complementary to the plan engineered for the larger or neighboring development. Storm gutters and down spouts, sump pumps, and other outlets draining stormwater or other authorized runoff shall be piped or otherwise channeled into a conveyance that will adequately drain runoff from the property. At no time shall runoff be directed onto a neighboring lot, so that it flows outside of the drainage easement. Stormwater and other drainage shall be managed on each lot, property, or site, so it will not cause damage or become a nuisance to a neighboring property. Storm drainage shall be properly routed to the nearest main drainage swale, street curb, or other appropriate stormwater conveyance structure to ensure proper drainage from the site.

14-6068. Existing locations and ongoing developments. (1) On-site stormwater management facilities maintenance agreement. Requirements for existing locations and developments. The following requirements shall apply to all locations and development at which land disturbing activities have occurred previous to the enactment of this ordinance:-

(a) The owners of property, including any HOA or management company, to be served by an on-site stormwater management facility must execute an inspection and maintenance agreement that shall operate as a deed restriction binding on the current property owners and all subsequent property owners and their lessees and assigns, including but not limited to, homeowner associations or other groups or entities. Denuded areas shall be vegetated or covered under the standards and guidelines specified in the BMP manual and on a schedule acceptable to the engineering department;

(b) The maintenance agreement shall: Cuts and slopes shall be properly covered with appropriate vegetation and/or retaining walls constructed;

(i) Assign responsibility for the maintenance and repair of the stormwater facility to the owners of the property upon which the facility is located and be recorded as such on the plat for the property by appropriate notation. Provide for a periodic inspection by the property owners in accordance with the requirements of subsection (3) below for the purpose of documenting maintenance and repair needs and to ensure compliance with the requirements of this ordinance.

(ii) The property owners shall also grant permission to the Town to enter the property at reasonable times to inspect the

stormwater management facility to ensure that it is being properly maintained.

(iii) Provide that the minimum maintenance and repair needs include, but are not limited to: the removal of silt, litter, and other debris, the cutting of grass, cutting and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, inlets and drainage pipes, and any other stormwater facilities. It shall also provide that property owners shall be responsible for additional maintenance and repair needs consistent with the needs and standards outlined in the MS4 BMP manuals.

(iv) Provide that maintenance needs must be addressed in a timely manner, on a schedule to be approved by the Stormwater Management Program.

(v) Provide that if the property is not maintained or repaired within the prescribed schedule, the stormwater entity shall perform the maintenance and repair at its expense, and bill the same to the property owner. The maintenance agreement shall also provide that the stormwater entity's cost of performing the maintenance shall be a lien against the property.~~Drainage ways shall be properly covered in vegetation or secured with rip-rap, channel lining, etc., to prevent erosion;~~

~~(d) Trash, junk, rubbish, etc. shall be cleared from drainage ways; and~~

~~(e) Storm water runoff shall be controlled to the extent reasonable to prevent pollution of local waters. Such control measures may include, but are not limited to, the following:~~

~~(i) Ponds:~~

~~(A) Detention pond;~~

~~(B) Extended detention pond;~~

~~(C) Wet pond; and~~

~~(D) Alternative storage measures.~~

~~(ii) Constructed wetlands.~~

~~(iii) Infiltration systems:~~

~~(A) Infiltration/percolation trench;~~

~~(B) Infiltration basin;~~

~~(C) Drainage (recharge) well; and~~

~~(D) Porous pavement.~~

~~(iv) Filtering systems:~~

~~(A) Catch basin inserts/media filter;~~

~~(B) Sand filter;~~

~~(C) Filter/absorption bed; and~~

~~(D) Filter and buffer strips.~~

~~(v) Open channel:~~

~~(A) Swale.~~

(2) Requirements for Existing problem locations – no maintenance agreement.

(a) Upon approval by the town manager, the ~~engineering~~ Public Works Department shall, in writing, notify the owners of existing locations and developments of specific drainage, erosion, or sediment problems affecting or cause by such locations and developments, and the specific actions required to correct those problems. The notice shall also specify a reasonable time for compliance. Discharges from existing BMP's that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.

(b) Inspection of existing facilities. The Public Works department may, to the extent authorized by state and federal law, enter and inspect private property for the purpose of determining if there are illicit non-stormwater discharges and/or establish inspection programs to verify that all stormwater management facilities, including those built before as well as after the adoption of this ordinance, are functioning within design limits. These inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of the Town of Smyrna's NPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to:

(i) Reviewing maintenance and repair records;

(ii) Sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and

(iii) Evaluating the condition of drainage control facilities and other BMPs.

(3) Owner/Operator Inspections of stormwater management facilities-general. The owners and/or the operators of stormwater management practices with or without maintenance agreements shall:

(a) Perform routine inspections to ensure that the BMP's are properly functioning. These inspections shall be conducted on an annual basis, at a minimum. These inspections shall be conducted by a person familiar with control measures implemented at a site. Owners or

operators shall maintain documentation of these inspections. The stormwater entity may require submittal of this documentation.

(b) Perform comprehensive inspection of all stormwater management facilities and practices. These inspections shall be conducted once every five years, at a minimum. Such inspections must be conducted by either a professional engineer or landscape architect, licensed in the State of Tennessee. Complete inspection reports for these five-year inspections shall include:

(i) Facility type,

(ii) Inspection date,

(iii) Latitude and longitude and nearest street address,

(iv) BMP owner information (e.g. name, address, phone number, fax, and email),

(v) A description of BMP condition including: vegetation and soils; inlet and outlet channels and structures; embankments, slopes, and safety benches; spillways, weirs, and other control structures; and any sediment and debris accumulation,

(vi) Photographic documentation of BMP's, and

(vii) Specific maintenance items or violations that need to be corrected by the BMP owner along with deadlines and re-inspection dates.

(c) For underground stormwater management systems, the owner or their assigned is required to conduct a stormwater inspection based on manufacturer's recommendations for inspections. This inspection must be conducted by an engineer licensed in the State of Tennessee or someone under their responsible charge. A copy of the inspection report must be submitted to the Town

(d) Owners or operators shall maintain documentation of these inspections. The stormwater entity may require submittal of this documentation.

(4) Requirements for all existing locations and ongoing developments. The following requirements shall apply to all locations and development at which land disturbing activities have occurred previous to the enactment of this ordinance:

a. Denuded areas must be vegetated or covered under the standards and guidelines specified in 14-605 and on a schedule acceptable to the stormwater entity.

b. Cuts and slopes must be properly covered with appropriate vegetation and/or retaining walls constructed.

c. Drainage ways shall be properly covered in vegetation or secured with rip-rap, channel lining, or other appropriate BMPs, to prevent erosion.

d. Trash, junk, litter, etc. shall be cleared from drainage ways.

e. Stormwater runoff shall, at the discretion of the stormwater entity be controlled to the maximum extent practicable to prevent its pollution. Such control measures may include, but are not limited to, the following:

(i) Ponds:

(1) Detention pond

(2) Extended detention pond

(3) Wet pond

(4) Alternative storage measures

(ii) Constructed wetlands.

(iii) Infiltration systems:

(1) Infiltration/percolation trench

(2) Infiltration basin

(3) Drainage (recharge) well

(4) Porous pavement

(iv) Filtering systems:

(1) Catch basin inserts/media filter

(2) Sand filter

(3) Filter/absorption bed

(4) Filter and buffer strips

(v) Open channel:

(1) Swale

(2) Natural conveyance

(4) Corrections of problems subject to appeal. Corrective measures imposed by the Town of Smyrna Engineering Public Works Department under this section are subject to appeal under section 14-610§ 14-612 of this chapter. (Ord. #04-48, Jan. 2005)

14-6079. Illicit discharges. (1) Scope. This section shall apply to all water generated on developed or undeveloped land entering the Town of Smyrna's separate storm sewer system.

(2) (2) Prohibition of illicit discharges. No person shall introduce or cause to be introduced into the Town of Smyrna separate storm sewer system or state water any discharge that is not composed entirely of stormwater. ~~The commencement, conduct, or continuance of any non-storm water discharge to the Town of Smyrna's separate storm sewer system is prohibited except as described as follows:~~ or any discharge that flows from stormwater

facility that is not inspected in accordance with section 14-606 shall be an illicit discharge.

Non-stormwater discharges shall include, but shall not be limited to, sanitary wastewater, car wash wastewater, radiator flushing disposal, spills from roadway accidents, carpet cleaning wastewater, compactor/dumpster leakage, effluent from septic tanks, improper oil disposal, laundry wastewater/gray water, improper disposal of auto and household toxics. The commencement, conduct, or continuance of any non-stormwater discharge to the municipal separate storm sewer system is prohibited except as described as follows:

- (a) Uncontaminated discharges from the following sources:
 - (i) Water line flushing or other potable water sources;
 - (ii) Landscape irrigation or lawn watering with potable water;
 - (iii) Diverted stream flows;
 - (iv) Rising groundwater; i.e. storm drain infiltration
 - (v) Pumped groundwater;
 - (vi) Foundation or footing drains;
 - (vii) Crawl space pumps;
 - (viii) Air conditioning condensation;
 - (ix) Springs;
 - (x) Non-commercial washing of vehicles;
 - (xi) Natural riparian habitat or wetland flows;
 - (xii) Swimming pools [if dechlorinated - typically less than one part per million (ppm) chlorine];
 - (xiii) Fire fighting activities; and
 - (xiv) Any other uncontaminated water source.

(b) Discharges specified in writing by the ~~engineering~~ Public Works Department as being necessary to protect public health and safety.

(c) Dye testing is an allowable discharge if the ~~engineering~~ Public Works Department has so specified in writing.

(d) Discharges authorized by the Construction General Permit (CGP), which comply with Section 3.5.9 of the same:

- (i) dewatering of work areas of collected stormwater and ground water (filtering or chemical treatment may be necessary prior to discharge);
- (ii) waters used to wash vehicles (of dust and soil, not process materials such as oils, asphalt or concrete) where

detergents are not used and detention and/or filtering is provided before the water leaves site;

(iii) water used to control dust in accordance with CGP section 3.5.5;

(iv) potable water sources, including waterline flushings from which chlorine has been removed to the maximum extent practicable;

(v) routine external building wash-down that does not use detergents or other chemicals;

(vi) uncontaminated groundwater or spring water; and

(vii) foundation or footing drains where flows are not contaminated with pollutants, such as process materials such as solvents, heavy metals, etc.

(3) Prohibition of illicit connections. (a) The construction, use, maintenance, or continued existence of illicit connections to the Town of Smyrna separate storm sewer system is prohibited.

(b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

(4) Reduction of stormwater pollutants by use of BMPs. Any person responsible for a property or premises, which is, or may be, the source of an illicit discharge, may be required to implement, at the person's expense, the BMPs necessary to prevent the further discharge of pollutants to the Town of Smyrna separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed in compliance with the provisions of this section. Discharges from existing BMP's that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.

(4) (5) Notification of spills. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation, has information of any known or suspected release of materials which are resulting in, or may result in, illicit discharges or pollutants discharging into stormwater, the Town of Smyrna separate storm sewer system, the person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials, the person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, the person shall notify the engineering Public Works Department in person or by telephone, email, or facsimile no later than the next business

day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the ~~engineering-public works~~ department within three (3) business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and actions taken to prevent recurrences. Records shall be retained for at least ~~five~~three (~~53~~) years. (Ord. #04-48, Jan. 2005)

~~(3)~~(5) No illegal dumping allowed. No person shall dump or otherwise deposit outside an authorized landfill, convenience center or other authorized garbage or trash collection point, any trash or garbage of any kind or description on any private or public property, occupied or unoccupied, inside the Town.

14-~~610~~608. Enforcement. (1) Enforcement authority. The town manager, or his or her designee, hereinafter called the "director," shall have the authority to issue notices of violation (NOV) and citations, and to impose the civil penalties provided in this section. Measures authorized include:

(a) Verbal Warnings – At a minimum, verbal warnings must specify the nature of the violation and required corrective action.

(b) Written Notices – Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.

(c) Stop Work Orders – Stop work orders that require construction activities to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate control measures.

(d) Consent Orders with Administrative Penalties – The MS4 has the authority to assess monetary penalties, which may include civil and administrative penalties.

(e) Withholding of Plan Approvals, Permits or Other Authorizations – Where a facility is in noncompliance, the MS4's own approval process affecting the facility's ability to discharge to the MS4 can be used to abate the violation.

(f) Additional Measures – The MS4 may also use other escalated measures provided under local legal authorities. The MS4 may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the project's bond or directly billing the responsible party to pay for work and materials.

(2) Notification of violation. (a) Verbal warning. Verbal warning may be given at the discretion of the inspector when it appears the condition

can be corrected by the violator within a reasonable time, which time shall be approved by the inspector.

(ab) Written notice. Whenever the director finds that any permittee or any other person discharging stormwater has violated or is violating this ordinance or a permit or order issued hereunder, the Director may serve upon such person a written NOV. Within ten (10) working days of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the director. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the NOV.

(bc) Consent orders. The director is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the noncompliance. Such orders will include specific action to be taken by the person to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to the following subsections (d) and (e).

(ed) Show cause hearing. The director may order any person who violates this ordinance or permit or order issued hereunder, to show cause why a proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt required) at least ten (10) working days prior to the hearing.

(de) Compliance order. When the director finds that any person has violated or continues to violate this ordinance or a permit or order issued there under, he/she may issue an order to the violator directing that, following a specific time period, adequate structures and/or devices be installed or procedures implemented and properly operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring, and BMPs.

(ef) Cease and desist orders. When the director finds that any person has violated or continues to violate this ordinance or any permit or order issued hereunder, the director may issue an order to cease and desist all such violations and direct those persons in noncompliance to:

- (i) Comply forthwith; or

(ii) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and terminating the discharge.

(g) Suspension, revocation, or modification of permit. The stormwater entity may suspend, revoke or modify the permit authorizing the land development project or any other project of the applicant or other responsible person within the Town. A suspended, revoked, or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the Notice of Violation or has otherwise cured the violations described therein, provided such permit may be reinstated upon such conditions as the stormwater entity may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

(3) Conflicting standards. Whenever there is a conflict between any standard contained in this ordinance and in the BMP manual adopted by the Town of Smyrna under this ordinance, the strictest standard shall prevail. (Ord. #04-48, Jan. 2005)

14-611609. Penalties. (1) Violations. Any person who shall commit any act declared unlawful under this ordinance, who violates any provision of this ordinance, who violates the provisions of any permit issued pursuant to this ordinance, or who fails or refuses to comply with any lawful communication, order, or notice to abate or take corrective action issued by either the Town of Smyrna Engineering Public Works Department or the director, shall be guilty of a civil offense.

~~(1)~~(2) Penalties. Under the authority provided in Tennessee Code Annotated, § 68-221-1106, penalties may include:

(a) The Town of Smyrna declares that any person violating the provisions of this ordinance may be assessed a civil penalty by the director of not less than fifty dollars (\$50.00) or ~~not~~ more than ~~five-ten~~ thousand dollars (\$~~5~~10,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation. The Town of Smyrna shall give the violator reasonable notice of the assessment of any penalty.

(b) Any person unlawfully polluting the waters of the state or not complying with TDA 69-3-101 will be committing a Class C felony.

(c) Any person knowingly and willfully falsifying records, information, plans, data required by the board or commissioner will be committing a Class E felony and pay a \$25,000 fine and may be incarcerated.

(3) Measuring civil penalties. In assessing a civil penalty, the director may consider:

- (a) The harm done to the public health and/or the environment;
 - (b) Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
 - (c) The economic benefit gained by the violator;
 - (d) The amount of effort put forth by the violator to remedy this violation;
 - (e) Any unusual or extraordinary enforcement costs incurred by the Town of Smyrna;
 - (f) The amount of penalty established by ordinance or resolution for specific categories of violations; and
 - (g) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.
- (4) Recovery of damages and costs. In addition to the civil penalty in the prior subsection (2), the Town of Smyrna may recover, but is not limited to recover, the following:
- (a) All damages proximately caused by the violator to the Town of Smyrna, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this ordinance, or any other actual damages caused by the violation; and
 - (b) The costs of the Town of Smyrna's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this ordinance.
- (5) Referral to TDEC.
- (a) If the MS4 becomes aware that a construction activity, or an industrial stormwater discharge, exists and that the discharge must be permitted under an NPDES permit but is not so permitted, the MS4 must notify TDEC of this situation by supplying the following information to the local EFO:
 - Construction project or industrial facility location;
 - Name of owner or operator;
 - Estimated construction project size or type of industrial activity (including SIC code if known);
 - Records of communication with the owner or operator regarding filing requirements.
 - (b) Where the Town has used progressive enforcement to achieve compliance with this ordinance, and in the judgment of the Town has not been successful, the Town may refer the violation to TDEC. For the purposes of this provision, "progressive enforcement" shall mean two (2) follow-up inspections and two (2) warning letters. In addition, enforcement referrals to TDEC must include, at a minimum, the following information:

- (a) Construction project or industrial facility location;
- (b) Name of owner or operator;
- (c) Estimated construction project or size or type of industrial activity (including SIC code, if known);
- (d) Records of communications with the owner or operator regarding the violation, including at least two follow-up inspections, two warning letters or notices of violation, and any response from the owner or operator.

(65) Other remedies. The Town of Smyrna may bring legal action to enjoin the continuing violation of this ordinance, and the existence of any other remedy, at law or equity, shall be no defense to any such actions.

(76) Remedies cumulative. The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action, civil or criminal, that one (1) or more of the remedies set forth herein has been sought or granted. (Ord. #04-48, Jan. 2005)

14-612610. Appeals. Pursuant to Tennessee Code Annotated, § 68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this ordinance may appeal said penalty or damage assessment to the town council.

(1) Written appeals. The appeal shall be in writing and filed with the town clerk within thirty (30) days after the civil penalty and/or damage assessment is served in any manner authorized by law. If a petition for review is not filed within such time, the violator shall be deemed to have consented to the damage assessment and/or civil penalty and it shall become final.

(2) Public hearing. The town council shall hold a public hearing not less than thirty (30), and not more than sixty (60), days after receipt of a petition for review. At least ten (10) days advance written notice, by registered mail, shall be provided to the aggrieved party, such notice to be sent to the address provided by the aggrieved party at the time of appeal.

(3) Appealing decisions. Any alleged violator may appeal a decision of the Town Council pursuant to the provisions of Tennessee Code Annotated, title 27, chapter 8. (Ord. #04-48, Jan. 2005)

14-613611. Amendments. The town council shall have the authority to enact amendments to this ordinance from time to time. (Ord. #04-48, Jan. 2005)

14-614612. Right of Entry and Inspection. The Public Works Director, Stormwater Coordinator, inspector, or other duly authorized employee of the Town, upon reasonable notice to any person who is owner, tenant, or occupant of any real estate, is empowered to enter, upon presentation of proper credentials, upon or through any premises for the purposes of carrying out the

objectives of this Ordinance. This right of entry shall include, but not be limited to, any equipment necessary to conduct such inspections. It shall be the duty of the person to provide all necessary clearance before entry and not to unnecessarily delay or hinder the inspector in carrying out the inspection. The
| right of entry shall exist at any time.

Memorandum

To: All SWAC members

CC:

From: Greg Upham

Date: 1/11/2016

Re: January's SWAC meeting: Review the new Water Quality Buffer Zone Policy

Greetings:

I have attached the document entitled Water Quality Buffer Zone Policy. We have presented this document in just two colors; black and white.

The Water Quality Buffer Zone (WQBZ) Policy must be approved by the SWAC and Town Council in order to become law within the Town of Smyrna. This policy is the same as the existing policy, but has had its Section III, which addresses widths, changed to comply with the standard statewide width being enforced by TDEC in the new MS4 permit. This policy allows the Town of Smyrna to enforce the Town's MS4 permit with TDEC.

You will notice that there are two sets of widths that are dependent upon the size of the watershed upstream of the proposed development site in question. If this watershed is less than one square mile in area then the smaller width applies. A watershed of this size would typically be found near the watershed divide, i.e. the very upper reaches of the stream, where the stream is quite narrow. The vast majority of our streams have upstream watersheds that are far greater than one square mile in area and are not found near the watershed divide. The WQBZ width along these streams would be the larger width.

If you would like a better understanding of the future changes to the SWM ordinance, please feel free to call me at 355-5701.

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TOWN OF SMYRNA

Water Quality Buffer Zone Policy

Section I - Description

A water quality buffer zone (WQBZ) is a strip of undisturbed native (indigenous) vegetation, either original or re-established, that borders surface water, streams and rivers, ponds and lakes, wetlands, and seeps as defined on page 18 of the Stormwater Management Ordinance (2016). WQBZs, a.k.a. buffer zones, are most effective when storm water runoff is flowing into and through them as shallow sheet flow, rather than in concentrated form such as in channels, gullies, splays, or wet weather conveyances. Therefore, it is critical that the design of any development include management practices, to the maximum extent practical, that will result in storm water runoff flowing into and through the WQBZ as shallow sheet flow.

WQBZs protect the physical and ecological integrity of water bodies from surrounding upland activities in the following ways:

- filtering excess amounts of sediment, organic material, nutrients, and other chemicals;
- reducing storm runoff velocities;
- providing flood protection;
- protecting channel bank areas from scour and erosion;
- providing shade for cooling adjacent water; which allows waters to hold a greater level of dissolved oxygen;
- providing leaf litter and large woody debris important to aquatic organisms; and
- improving stream bank habitat for aquatic organisms

Section II – Intent

The intent of this policy is to protect and maintain the native vegetation in **permanent** WQBZs by implementing specifications for the establishment, protection, and long-term maintenance of buffer zones along all surface waters, intermittent and perennial stream waterways, wetlands, and seeps, in or adjacent to new development and significant redevelopment within our jurisdictional authority. This policy serves to clarify the requirements for WQBZs. It applies to all development approved after its enactment, including significant redevelopment of properties approved prior to its enactment. The WQBZ shall not be used as a sediment control measure in any manner. Natural enhancement, i.e. the addition of indigenous vegetation is allowed, but only if needed to improve the effectiveness of the WQBZ.

Section III - Design Standards for Permanent Water Quality Buffer Zones

A WQBZ is required along all surface waters, perennial and intermittent streams, rivers, lakes, and wetlands as identified on a 7.5-minute USGS quadrangle map, or as determined by the Tennessee Department of Environment and Conservation (TDEC) or Town of Smyrna Public Works Department.

Where a subdivision is traversed by surface water, either an intermittent or perennial stream, river, lake, or wetland, there shall be provided a **permanent** WQBZ with widths depending on the size of drainage area (watershed) upstream of said subdivision. Watercourses with drainage areas less than 1 square mile will require WQBZ widths equal to or greater than 30 feet. Watercourses with drainage areas 1 mile or greater will require WQBZ widths equal to or greater than 60 feet. If this case should prevail the WQBZ width can be established on an average width basis along the watercourse, but must be greater than 30 feet. WQBZ widths are always measured perpendicular to the top of bank of the watercourse in question.

All WQBZs shall be clearly marked on concept, site development, and grading plans. Prior to the issuance of the associated grading permit, the perimeter of all WQBZs will be delineated by silt fence or an equivalent and approved by the Public Works Department.

During construction activities, the WQBZ is regulated by the General NPDES Permit for Discharges of Stormwater Associated with Construction Activities (<http://www.tnepsc.org/>).

WQBZ width adjustments:

- A) If there are 15% to 24% slopes which are within the required WQBZ, the width shall be adjusted to include an additional 20 feet.
- B) If there are 25% or greater slopes which are within the required WQBZ, the width shall be adjusted to include an additional 50 feet.
- C) If the adjacent land use involves drainfields from on-site sewage disposal and treatment systems (i.e. STEP system collection / sand filter treatment / disposal field lines) or subsurface sewage disposal systems (i.e. conventional, alternative, and experimental septic systems) current TDEC-Division of Water Pollution Control and Rutherford County Health Department regulations, requiring a 25 foot setback from top of bank, shall govern. No septic tanks shall be allowed within the WQBZ, while disposal field lines are allowed within the WQBZ, so long as they abide by the aforementioned state and county regulations.
- D) If the land use or activity involves the storage of hazardous substances or petroleum facilities, the WQBZ width shall be adjusted to include an additional 100 feet.
- E) If the land use involves animal feedlot operations, the WQBZ width shall be adjusted to include an additional 200 feet.
- F) If the land use or activity involves solid waste landfills or junkyards, the WQBZ width shall be adjusted to include an additional 250 feet.
- G) If the adjacent land use involves surface discharges of collected septage current Rutherford County Health Department regulations, requiring a 300-foot setback from the top of bank, shall govern.
- H) If the adjacent land use involves surface discharges from a wastewater treatment plant, land application of bio-solids, or animal waste the WQBZ width shall be governed by current TDEC-Division of Water Pollution Control regulations.
- I) If more than one of the aforementioned are applicable, the greater width adjustment shall apply.

Section IV - Water Quality Buffer Zone Management and Maintenance

The function of the WQBZ is to protect the physical and ecological integrity of the waterway, to reduce flooding potential, and to filter runoff from residential, commercial, institutional, recreational, and industrial development. The WQBZ vegetative objective is undisturbed native vegetation.

- A) Management of the WQBZ includes specific limitations on alteration of the natural conditions. The following practices and activities are restricted within the WQBZ, except with prior approval by the Town of Smyrna Public Works Department:
 - 1) Clearing or grubbing of existing vegetation;
 - 2) Clearcutting of vegetation;
 - 3) Soil disturbance by grading, stripping, or other practices;

Town of Smyrna Water Quality Buffer Zone Policy

- 4) Filling or dumping;
 - 5) Use, storage, or application of pesticides, herbicides, and fertilizers; and
 - 6) Conversion of vegetation from native to exotic species.
- B) The following structures, practices, and activities are permitted in the water quality buffer zone, subject to the prior approval of the Town of Smyrna Public Works Department, the acquisition of an Aquatic Resources Alteration Permit (ARAP) from the Natural Resources Section, Division of Water Pollution Control, TDEC, and the following specific design or maintenance features:
- 1) Stream crossings, paths (i.e. trails and greenways), stream bank stabilization efforts, riparian zone enhancements, instream deflector structures, and utilities
 - a) An analysis needs to be conducted to ensure that no economically feasible alternative is available;
 - b) The right of way should be the minimum width needed to allow for maintenance access and installation;
 - c) The angle of a crossing shall be perpendicular to the stream or buffer in order to minimize clearing requirements;
 - d) The minimum number of crossings should be used within each development, and no more than one crossing is allowed for every 1,000 linear feet of the WQBZ. Where possible, the design of roadways and lots within a development should be aligned such that all streams are either to the rear or the side of individual lots, never along the front.
 - 2) Individual trees within the WQBZ may be cut down if in danger of falling, causing damage to dwellings or other structures, or causing blockage of the stream. The remaining root wad or stump should be left in place, where feasible, to maintain soil stability and instream habitat.
- C) All site development plans and plats prepared for recording shall:
- 1) Show the extent of any water quality buffer zone on the subject property by metes and bounds and be labeled as "Water Quality Buffer Zone";
 - 2) Provide a note to reference any WQBZ stating, "There shall be no clearing, grading, construction, or disturbance of soil and/or native vegetation except as permitted by the Town of Smyrna Public Works Department"; and
 - 3) Provide a note to reference any protective covenants governing all water quality buffer zones stating, "Any water quality buffer zone shown hereon is subject to protective covenants which may be found in the land records and which restrict disturbance and use of these areas."
- D) All WQBZ must be protected during development activities. Prior to the initiation of development activities, ensure adequate visibility of the WQBZ by staking and flagging and onsite visitation and discussion(s) with all appropriate contractors. Permanent boundary markers, in the form of signage approved by the Town of Smyrna Public Works Department, shall be installed prior to the completion of the development activities.
- E) Stream banks and other areas within the WQBZ shall be left in a stabilized condition upon completion of the development activities. The vegetative condition of the entire buffer zone shall be monitored and landscaping or stabilization performed to repair erosion, damaged vegetation, or other problems

identified. Only native vegetation may be used in conjunction with stabilization activities. A guide to selecting native vegetation can be found at www.tva.com/river/landandshore/stabilization/plantsearch.htm, or obtained by contacting the Town of Smyrna Public Works Department.

All landscaping or stabilization activities within the WQBZ zone shall have prior approval by the Town of Smyrna Public Works Department. In addition, performing work in and around waters of the state may require coverage under a state and possibly a federal permit. Contact the nearest TDEC, Division of Water Pollution Control, Environmental Field Office (1-888-891-8332) for more information on whether a proposed activity requires a permit.

- F) No buildings shall be allowed in the WQBZ with the exception of open type recreation areas as detailed in the Town of Smyrna Municipal Zoning Ordinance.
- G) All WQBZs shall be maintained through a declaration of protective covenant, which is required to be submitted for approval by the Town of Smyrna Public Works Department. The covenant shall be recorded in the land records and shall run with the land and continue in perpetuity.
- H) WQBZs shall be recorded on the plat for parcels subject to plat revision as water quality buffer easements. On parcels not subject to plat revisions, the buffer zone shall be applied as a setback from the edge of channel and labeled on the site plan as a "Water Quality Buffer Zone".
- I) All lease agreements shall contain a notation regarding the presence and location of protective covenants for WQBZs. The aforementioned agreement shall contain information on the management and maintenance requirements for the WQBZ for the new resident.

Section V - Waivers/Variances

- A) This WQBZ policy shall apply to all proposed development except for a development which was approved prior to the effective date of this ordinance:
 - 1) Is covered by a valid, unexpired plat in accordance with development regulations;
 - 2) Is covered by a current, executed public works agreement;
 - 3) Is covered by a valid, unexpired building permit; or
 - 4) Has been granted a waiver in accordance with current development regulations.
- B) The Town of Smyrna Public Works Director may grant a variance for the following:
 - 1) Those projects or activities where it can be demonstrated that strict compliance with the ordinance would result in practical difficulty or financial hardship; or
 - 2) Those projects or activities serving a public need where no feasible alternative is available; or
 - 3) The repair and maintenance of public improvements where avoidance and minimization of adverse impacts to wetlands and associated aquatic ecosystems have been addressed.

- C) Waivers for development may also be granted in two additional forms, if deemed appropriate by the Town of Smyrna Public Works Director:
- 1) The WQBZ width may be relaxed and permitted to become narrower at some points. However, the overall average width of the buffer zone must meet the minimum requirement set forth in Section III, Design Standards for Permanent Water Quality Buffer Zones (width determination), on page 1 of this policy. The minimum width shall be approved by the Public Works Director.
 - 2) The Town of Smyrna may consider credit for additional density elsewhere on the site in compensation for the loss of developable land due to the requirements of this ordinance. This compensation may increase the total number of dwelling units on the site up to the amount permitted under the base zoning.
- D) The applicant shall submit a written request for a variance to the Town of Smyrna Public Works Director. The application shall include specific reasons justifying the variance and any other information necessary to evaluate the proposed variance request. The Town of Smyrna Public Works Director may require an alternatives analysis that clearly demonstrates that no other feasible alternatives exist and that minimal impact will occur as a result of the project or development.
- E) When considering a request for a variance, the Town of Smyrna Public Works Director may require additional information such as, but not limited too, site design, landscape planting, fencing, the placement of signs, and the establishment of water quality best management practices in order to reduce adverse impacts on water quality, watercourses, and wetlands.

Section VI - Conflict with Other Regulations

Where the standards and management requirements of this buffer ordinance are in conflict with other laws, regulations, and policies regarding streams, steep slopes, erodible soils, wetlands, floodplains, timber harvesting, land disturbance activities, or other environmental protective measures, the more restrictive requirements shall apply.

Town of Smyrna
Storm Water Management Program
Progress Report to the
Storm Water Advisory Committee
January 25, 2016 at 6:00 PM
Smyrna Town Hall /Council Chambers

- I. Discuss the following Storm Water Management (SWM) Program achievements made from: October 1 through December 31, 2015.
- A. Tom Rose, Certified Professional Engineer, directed the Public Works staff to address several new projects, including the tracking of all recently issued certificates of occupancy then assessing what SWU fee is to be collected. This new information is reported monthly to CUD and Utilities. 127 were completed, while 14 are outstanding. In addition, all SWU fee delinquent accounts were also tracked and reported to Utilities.
 - B. Mr. Rose directed staff to initiate the gathering and composing of data related to a TDOT grant entitled Safe Routes to School, which will, hopefully, pay for much needed sidewalks leading up to school properties. Staff mailed a questionnaire to all 12 public school principals requesting counts for bus riders, car riders, walkers, and bikers. Only four principals responded.
 - C. Mr. Rose reviewed all grading permits, in tandem with sediment control reviews by the program coordinator, and attends most pre-construction meetings, where he requires the submittal of as-built drawings for each and every project as well as all applicable water quantity concerns.
 - D. Received no citizen inquiries about the Storm Water Utility (SWU) user fee.
 - E. Completed writing the quarterly report for SWAC review. This satisfies a MS4 permit requirement.
 - F. Town of Smyrna staff facilitated one monthly SWAC meeting (October) where the quarterly progress report and several Vacant Accounts were reviewed and approved. This satisfies a MS4 permit requirement.
 - G. Submitted a request to Legal to change the SWAC by-laws to require quarterly meetings only, with monthly meetings being called only on an as needed basis. Jeff Peach and his staff did so in time for the January SWAC meeting.
 - H. Reviewed seven sets of grading plans during three monthly staff plan review meetings then created project files once these projects were Planning Commission-approved. This satisfies a MS4 permit requirement.
 - I. Began contacting developers soon after their projects are Planning Commission-approved to encourage them to pass the grading permit procedures (mailed with their planning office letter) on to their project manager.
 - J. Corresponded with developers and contractors about several imminent projects concerning grading permit issues. This satisfies a MS4 permit requirement.
 - K. Completed sediment control measure inspections at ten construction sites prior to the issuance of their grading permits, none of which were a Town of Smyrna project. This satisfies a MS4 permit requirement.
 - L. Facilitated ten official grading permit pre-construction meetings, of which the last two were the first times the Town ever requested as-built plans. This satisfies a MS4 permit requirement.
 - M. Issued 11 grading permits. This satisfies a MS4 permit requirement.
 - N. Met with Mike Moss and Janet York to discuss the possibility of using porous concrete in the upcoming outdoor plaza and parking lot additions associated with the Smyrna Town Center – Outdoor Adventure Center. The SWM Program staff also dedicated itself to providing Ms. York with education and outreach material, which included four DVDs generated by the SWM Program. Both Parks staff members are in full support of this assistance. This satisfies a MS4 permit requirement.
 - O. Investigated two Illicit Discharge Detection and Elimination (IDDE) issues. This satisfies a MS4 permit requirement.
 - P. Dwaine Lawson, Environmental Tech/Inspector accomplished the following, which all satisfy MS4 permit requirements:
 - i. Organized and tracked monthly inspection calendar for all construction sites.
 - ii. Conducted monthly construction inspections and electronically recorded them in PubWorks, and worked with supervisors, developers, builders, and engineers during 164 (55/Oct. + 52/Nov. + 57/Dec.) construction site inspections (Of these ~50 per month are active).
 - iii. Participated in ten grading permit pre-construction meetings
 - iv. Conducted another round of grease receptacle inspections, by inspecting 93 receptacles and updating the inspection sheet. No letters of warning were issued, but one NOV was.
 - v. Inspected no Illicit Discharge Detection and Elimination issues.
 - vi. Continued to work with business owners, property owners, et al to educate and enforce detention basin corrections.
 - vii. Conducted annual inspections of all 206 detention basins, updating the inspection form with contact information.

- viii. Continued to respond to citizens' concerns.
- ix. Reviewed two as-built plan submittals.
- x. Conducted 52 individual lot erosion control inspections.
- xi. Represented the Public Works Department at United Way campaign meetings.
- xii. Attended a karst field trip in Murfreesboro.
- xiii. Worked with Public Works Director on several projects pertaining to ongoing construction projects, drainage issues, and a variety of other projects.
- xiv. Gathered documents for an open-records request of The Preserve at Stewart Creek.
- Q. Held one fall stream cleanup event, where nine volunteers removed 16 bags of litter from the entrant of an open fracture on the Stone Crest Medical Center property. This satisfies a MS4 permit requirement and marks the end of the tenth consecutive year of stream cleanups.
- R. Met with Mr. Rose about the drainage concerns related to the downtown Patton property and Soccer Park and the proposed Florence Road widening project then completed some on the ground flow direction determinations, which was given to Mr. Rose.
- S. Introduced concept to Mr. Rose then wrote letter to Stone Crest Medical Center, C.O.O., Andrew Tyrer, to construct a two-layered rock berm, on the boundary of TDOT and its property, set perpendicular to runoff/litter flow. Once completed, this structure will separate the floatable litter from the runoff, which will flow litter-free into the entrant of an open fracture. This may be the first time this type of Best Management Practice has ever been constructed on TDOT right of way.
- T. Staff attended a local karst field trip, hosted by Murfreesboro and the Stones River Watershed Association, where Dr. Albert Ogden, former MTSU hydrogeology professor, Josh Upham, GIS expert with the City of Murfreesboro, and the Town of Smyrna SWM Program Coordinator.
- U. Based on direction from Mr. Rose, began creating a stream cleanup website intentionally designed to assist in the automation of events, while inviting even more citizens to participate in this constructive event than ever before.
- V. Prepared and submitted for Mayor Reed's signature nine certificates of appreciation for volunteers assisting in the aforementioned fall stream cleanup then distributed them. This satisfies a MS4 permit requirement.
- W. Continued to care for the 12 surviving seedlings until they began losing their leaves. Have made tentative arrangements to plant them in the newly initiated West Fork Neighborhood Park in the late winter of 2016. The SWM Program will be working in conjunction with the Parks Department on this project.
- X. The Public Works Office Coordinator handled 19 citizen inquiries regarding storm water drainage issues during this same time frame.
- Y. Continued to provide public works director with daily reports from which this quarterly report was written. (25 program achievements and 14 achievements for Dwaine Lawson).