

REGULATIONS

The purpose of this chapter is to provide a brief overview of each of the local, state and federal laws, regulations and programs which are applicable to property development activities in Knox County. This chapter is not intended to be a detailed analysis of each requirement, as specific requirements and policies are included throughout the Knox County Stormwater Management Manual. A number of pertinent regulations are provided in Appendix A. Site developers and designers are advised to obtain copies of applicable regulations from the appropriate regulatory agency prior to beginning development planning activities. A list of agency contacts is included in Appendix C.

3.1 Applicable Local Ordinances

3.1.1 Stormwater Management Ordinance

The Knox County Stormwater Management Ordinance is provided in Appendix A. The ordinance regulates grading, excavation, clearance, and other land alteration activities, erosion prevention, sediment and construction related waste control, the design and construction of storm drainage facilities for purposes of water quality and quantity control, floodplain management, developments in or near sinkholes, and water quality buffers. The ordinance strives to limit the dangers of personal injury, and/or property or environmental damage that may be caused by stormwater runoff.

3.1.2 Zoning Ordinance

The Zoning Ordinance for Knox County, Tennessee is administered by the Metropolitan Planning Commission (MPC). A copy of the Zoning Ordinance can be obtained from the MPC website, www.knoxmpc.org.

The Zoning Ordinance serves two functions. First, the ordinance has been adopted as the official zoning “plan” for Knox County, Tennessee, excluding the municipal jurisdictions of the City of Knoxville and the Town of Farragut. As such, the zoning plan is typically the first consideration of a developer in the site planning process (i.e., does the intended use of the proposed development conform to the intentions of the zoning plan). Second, the ordinance regulates the layout and construction of buildings on the lot to be developed. In accordance with Article 1 of the Zoning Ordinance, its purposes are to:

- regulate and restrict the location and use of buildings, structures, and land for residence, trade industry, and other purposes, the height, number of stories and size of buildings and other structures, and the size of yards, courts, and other open spaces on the lot or tract;
- provide definite official land use plans for property publicly and privately owned in Knox County outside the municipal corporations of Knoxville and Farragut;
- guide, control, and regulate the future growth and development of Knox County in accordance with the zoning plan; and,
- provide for the administration of the zoning plan.

3.1.3 Minimum Subdivision Regulations

The Knoxville-Knox County Minimum Subdivision Regulations govern the subdivision of land within the City of Knoxville and Knox County. In general, the subdivision regulations are administered by

MPC, however Knox County and other agencies have regulatory approval for specific aspects of plans submitted to conform with these regulations. A copy of the subdivision regulations can be obtained from the MPC website, www.knoxmpc.org.

The Subdivision Regulations establish procedures for the submission and review of concept plans, subdivision plats, standards for the design and installation of improvements to the subdivision, and provisions for the administration, enforcement and penalties for violations. In accordance with Section 1 of the Subdivision Regulations, its purposes are as follows:

- to provide for the harmonious development of the City of Knoxville and Knox County and their environs;
- for the coordination of roads within the subdivided land, with other existing or planned roads, or with the state or regional plan, or with the plans of municipalities in or near the region;
- for adequate open spaces for traffic, light, air and recreation;
- for the conservation or production of adequate transportation, water, drainage and sanitary facilities;
- for the avoidance of population congestion;
- for the avoidance of such scattered or premature subdivision of land as would involve danger or injury to health, safety, or prosperity by reason of the lack of water supply, drainage, transportation or other public services or would necessitate an excessive expenditure of public funds for the supply of such services; and,
- to control the manner in which roads shall be graded and improved, and water, sewer and other utility mains, piping, connections or other facilities shall be installed.

3.1.4 Flood Damage Prevention Ordinance

The Knox County Flood Damage Prevention Ordinance (No. O-94-3-101) is provided in Appendix A. The ordinance regulates development in and around Special Flood Hazard Areas, as designated by the Federal Emergency Management Agency (FEMA), in Knox County for general purposes of flood damage prevention and the protection of life, health, commerce, property and public funds that can be impacted by flooding. In accordance with Section 1 of the ordinance, its purposes are to:

- restrict or prohibit uses which are dangerous to health, safety, and property due to water, erosion, or damaging increases in flood heights or velocities;
- require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;
- control filling, grading, dredging and other development which may increase erosion or flood damage; and,
- prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

From a floodplain management perspective, the Flood Damage Prevention Ordinance proceeded, and is complimented by, the Stormwater Management Ordinance. Both ordinances regulate development in the floodplain but differ in overall objectives. The Flood Damage Prevention Ordinance was originally developed to satisfy Federal requirements for Knox County's participation

in the National Flood Insurance Program (NFIP), which is administered by FEMA. Knox County continues to administer the ordinance specifically for that purpose. In addition to the Flood Damage Prevention Ordinance, the floodplain management requirements contained in the Knox County Stormwater Management Ordinance further strengthen Knox County's floodplain management regulations beyond FEMA's minimal requirements. In addition, the Stormwater Management Ordinance expands flood management regulations to unstudied streams and sinkhole areas, and secures the County's participation in FEMA's Community Rating System (CRS).

3.2 Applicable State and Federal Regulations

3.2.1 Tennessee Construction General Permit

The State of Tennessee General NPDES Permit for Discharges of Stormwater Associated with Construction Activities is henceforth referred to as the "Construction General Permit" (CGP). Applicable to all areas of the State of Tennessee, the CGP is intended to regulate the pollution prevention and the control of wastes during construction activities. Specific to site developments, the CGP emphasizes the application of best management practices for purposes of erosion prevention and sediment control and the control of other construction related materials and wastes. In general, the CGP authorizes point source discharges of stormwater from construction activities that result in the disturbance of one acre or more of total land area. Projects or developments of less than one acre of land disturbance are required to obtain authorization under the CGP if the construction activities at the site are part of a larger common plan of development or sale. Further, there are permit provisions for development less than one acre of land disturbance, and for construction support activities.

The CGP is administered by the Tennessee Department of Environment and Conservation (TDEC). Development owners or operators can obtain CGP coverage by filing a Notice of Intent (NOI) with TDEC prior to initiating construction activities. A Stormwater Pollution Prevention Plan (SWPPP) and applicable permit fees must be submitted with the NOI. Both the CGP and the Knox County Stormwater Management Ordinance require that development owners or operators obtain coverage under the CGP and provide proof of such coverage (in the form of a Notice of Coverage) prior to obtaining a grading permit from Knox County. Further, the CGP requires that the owner or operator also submit the CGP Notice of Termination (NOT) to TDEC and a copy to Knox County after construction activities are completed.

The CGP, along with the NOI, NOT and inspection documentation forms can be obtained from the local TDEC office, or on-line at: <http://www.state.tn.us/environment>.

3.2.2 Aquatic Resource Alteration Permit (ARAP)

Persons who conduct any activity that involves the alteration of waters of the State must obtain a State ARAP, and possibly a Federal Section 401 Certification. ARAPs and 401 Certifications are administered by TDEC. The Section 401 Certification is required for projects involving the discharge of dredged or fill material into waters of the United States (US), or wetlands. An ARAP is required for any alteration of State waters, including wetlands that do not require a federal permit. Examples of stream alteration activities that require an individual ARAP include:

- dredging, widening, straightening, or bank stabilization;
- levee construction if excavation or fill of a stream channel is involved;
- channel relocation;
- water withdrawals, diversions or dams;
- flooding, excavating, draining and/or filling a wetland; and,

- bridge construction.

Not every activity requires a separate, individual permit. TDEC issues general permits for specific stream alterations that cause minimum impact to water quality. Typically little or no paperwork is involved with these permits. Typically, the following activities are eligible for a general ARAP permit:

- construction of boat launching ramps;
- alteration of wet weather conveyances;
- construction of road crossings of waters;
- utility line crossings;
- bank stabilization;
- sand and gravel dredging;
- bridge scour repair;
- stream restoration and habitat enhancement; and,
- alteration of up to one acre of isolated wetlands.

3.2.3 Section 404 (Wetlands) Permit

Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. Activities in waters of the United States that are regulated under this program include fills for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and conversion of wetlands to uplands for farming and forestry. The US Army Corps of Engineers administers the 404 permit program. The program governs such activities on all surface waters, such as inland waters, lakes, rivers, streams and their tributaries; interstate waters and their tributaries; wetlands adjacent to the above (e.g., swamps, marshes, bogs, or other land areas); and isolated wetlands and lakes, intermittent streams, and other waters where degradation could affect interstate commerce. Section 404 permits (and possibly Section 10 permits) are required for stormwater activities that may impact natural wetlands.

3.2.4 26a Permits for Shoreline Construction

The Tennessee Valley Authority (TVA) administers a permit program that governs shoreline construction along, across, or in the Tennessee River or any of its tributaries. Thus, TVA's jurisdiction for the 26a permit extends to the limits of the Tennessee River watershed. In accordance with TVA requirements, the permit applied to construction in the 500-year floodplain or to the upper limits of TVA flowage rights, whichever is higher, for developments located along regulated rivers (tailwaters) and TVA reservoirs (e.g., Fort Loudoun Lake). Along off-reservoir, unregulated streams and rivers, jurisdiction is typically applied to the limits of the 100-year floodplain. More information on the TVA 26a permit can be found at <http://www.tva.gov>.

3.2.5 Section 9 and 10 Permits for Navigable Waters

Sections 9 and 10 of the Rivers and Harbors Act of 1899 address the construction of bridges and other potential modifications or alterations of navigable waters of the United States. A Section 9 permit is required for construction of a bridge or other structure spanning navigable waters of the United States, without fill or dredging. The United States Coast Guard, as a part of the Department of Homeland Security, administers Section 9 permits. Section 10 permits are issued for fill, dredging, and other alterations of navigable waters. Section 10 permits are administered by the United States Army Corps of Engineers.



3.2.6 Endangered Species Act

The Federal Endangered Species Act (ESA) of 1973 protects plants and animals that are listed by the government as “endangered” or “threatened”. The ESA makes it unlawful for any landowner to harm an endangered animal, or to significantly modify an endangered animal’s habitat. This applies to both public and private lands. More information on the Endangered Species Act can be gathered from the Tennessee Wildlife Resources Agency (<http://www.state.tn.us/twra>), or the United States Fish and Wildlife Service (www.fws.gov).

3.3 Other Pertinent Regulations

In accordance with the Knox County Stormwater Management Ordinance, the Director has the authority to require more stringent stormwater management standards in order to comply with State and Federal permits or regulations. For Knox County, there are two major state-administered regulatory programs that would cause the Director to modify stormwater management standards in certain areas: the NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s); and the Total Maximum Daily Load (TMDL) program. Knox County Engineering will advise the developer of more stringent requirements that result from MS4 permit conditions or TMDL program prior to approval of a grading permit or stormwater management plan. Both programs are discussed briefly below.

3.3.1 NPDES MS4 (Phase II) Permit

The National Pollutant Discharge Elimination System (NPDES) general permit for discharges from MS4s establishes guidelines for municipalities to minimize pollutants in stormwater runoff to the “maximum extent practicable.” This permit is often referred to as the “NPDES Phase II permit” or as the “MS4 permit”, and is administered by TDEC. The permit is directly applicable to Knox County, and the Department of Engineering and Public Works has the responsibility of maintaining the County’s compliance with the permit requirements. The permit can impact property development regulations within Knox County. For example, the extension of the Knox County stormwater management program to include water quality control in all new developments and redevelopments in accordance with this manual is a direct result of TDEC’s MS4 permit conditions for Knox County. Knox County must renew this permit every five years, at which time permit conditions may become more stringent and could impact local property development regulations, policies or procedures.

While a site developer or property owner has no direct responsibility with regards to compliance with the MS4 permit, Knox County’s Phase II permit conditions can affect design and stormwater management criteria for erosion prevention and sediment control and stormwater quality management on individual development sites. Typically, these sites will be located in watersheds that drain to streams listed on the State’s 303(d) list of impaired waters, or in watersheds that drain to streams listed by the State as “high quality waters”. Knox County Engineering will advise the developer of more stringent requirements that result from MS4 permit conditions prior to approval of a grading permit or stormwater management plan.

3.3.2 Total Maximum Daily Load Program

Under Section 303(d) of the Clean Water Act, the State of Tennessee is required to develop a list of impaired waters that do not meet water quality standards (i.e., the 303(d) list). TDEC must then establish priority rankings for waters on the list and develop TMDLs for listed waters. The TMDL specifies the maximum amount of a specific pollutant of concern that a designated segment of a water body can receive and still meet water quality standards. The TMDL also allocates pollutant loadings among point and non-point pollutant sources, including stormwater runoff. Several TMDLs have been issued for water bodies in Knox County, and more are anticipated.

The TMDL program has the potential for broad impact on Knox County’s stormwater management



program and property development regulations because it requires that non-point sources of pollutants must be addressed at the local level. The program requires the development of a plan that may impose requirements or restrictions for specific local regulations or programs. Adopted TMDL plans are available from TDEC or at TDEC's website (<http://www.state.tn.us/environment>).

3.4 Stormwater Management Policies

The Knox County Stormwater Management Ordinance and other applicable ordinances contain regulatory language pertaining to property development in Knox County. Some of that language is repeated in this manual. This manual also contains additional requirements and guidelines not included in the Stormwater Management Ordinance that shall be considered Knox County stormwater management policy. Such requirements and guidelines are presented throughout the manual, when applicable and appropriate to the stormwater management topic being discussed. Requirements and guidelines stated in this manual are enforceable, consistent with the intent of the ordinance. This manual does not contain a separate section listing all pertinent stormwater management policies.