

ARTICLE 4: REQUIREMENTS

400 STORMWATER DESIGN STANDARDS

Design standards are established for the purpose of promoting sound development practices with respect to minimizing impacts from developed areas and are not intended to prohibit the use of innovative and alternative techniques that demonstrate the ability to successfully achieve the objectives of this Ordinance. Land development activities shall be performed in such a manner as to minimize the degradation of the receiving waters and protect existing developments. All activities subject to this Ordinance shall adhere to the following provisions for managing stormwater runoff. Subsection (5) below sets forth alternative design standards for certain types of development or redevelopment, including Minor Subdivisions, that can be met in lieu of the stormwater quality and/or quantity requirements in subsections (2) and (3).

(1) General

- a. The Stormwater Management Plan to be prepared (see Section 403) shall be based on full build-out conditions for the proposed development or redevelopment.
- b. Hydrologic analysis shall be performed in a manner using generally accepted engineering methods for analyzing rainfall to runoff responses by employing appropriate models and calculations. Appropriate methods include the Soil Conservation Service Curve Number and the Rational Method for total drainage areas of less than 200 acres. Other models and methods should produce results reproducible by the Stormwater Administrator and should receive prior verbal or written approval from the Stormwater Administrator before they are employed.
- c. The rainfall data for Chatham County shall be the latest information from the National Oceanic and Atmospheric Administration (NOAA). (<http://hdsc.nws.noaa.gov/hdsc/pfds/index.html>). This information is continuously updated and will note the precipitation depths and intensities at any location in the County. Applicants shall download the latest information from NOAA and include copies with their stormwater calculations.
- d. Hydraulic analysis shall be performed in a manner using generally accepted engineering methods for analyzing peak discharge rates in open channel and closed conduit conditions by employing appropriate models and calculations. Appropriate methods include Manning's Equation for free flowing systems and Energy Equation for pressurized systems. Other models and methods should produce results