

## **STANDARD DESIGN CRITERIA**

### **1 GENERAL**

These technical specifications address the design criteria necessary for stormwater management. The purpose of stormwater management is to prevent flooding, minimize property damage, prevent erosion, eliminate nuisance conditions, lower overall costs, and improve overall water quality.

Stormwater management is required to provide protection from flooding by limiting the post-developed peak rate of discharge (volume, velocity, & concentration shall also be considered); recharge where possible by allowing for retention of runoff where soils are compatible; and pollution abatement by retention with percolation or detention without infiltration (wet detention).

### **2 DEVELOPMENT WITHIN AREAS OF THE 100-YEAR FLOODPLAIN**

#### **2.1 NATIONAL FLOOD INSURANCE PROGRAM**

Projects located within the 100-year floodplain of a river or stream come under the jurisdiction of the Flood Hazard Regulatory Authority as found in Part 31, Water Resources Protection of the Natural Resource and Environmental Protection Act, Act 451 of the Public Acts of 1994. A permit needs to be filed with the Department of Environmental Quality (DEQ) for projects that involve construction, filling, and grading within a floodplain area.

The objectives of Part 31 are: a) to ensure that the flood carrying capabilities of the rivers and streams is maintained such that the floodways are not obstructed and that flood elevations are not increased or flow diverted, and b) to ensure that the floodway portion of floodplains are not inhabited.

Many communities in Kent County also participate in the National Flood Insurance Program (NFIP). The program makes flood insurance available in those communities agreeing to regulate future floodplain construction. Associated with the program are community floodplain mapping, building standards, federal lending restriction, and flood insurance rates supportive of local floodplain regulation. In order for a community to participate in the NFIP local regulations must be in force to:

1. Require that new construction and substantial improvements in flood prone areas be designed and anchored to prevent flotation, collapse, or lateral movement, be constructed with materials and utility equipment resistant to flood damage, and be constructed by methods and practices to minimize flood damages.
2. Require, where flood elevation data are available, that