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# COUNCIL OF THE TOWN OF INDIAN HEAD

## Ordinance No. 05-01-10

**Introduced By:** Mayor and Council

**Date Introduced:** May 3, 2010

**Public Hearing Held:**

**Date Adopted:**

**Date Effective:**

**AN ORDINANCE** concerning

### STORMWATER MANAGEMENT

**FOR** the purpose of comprehensively revising the Town's existing stormwater management regulations, requirements, processes, procedures and penalties that apply to the development of certain land in the Town, as mandated by the State Storm Water Management Act of 2007 and regulations of the Maryland Department of the Environment and as approved by that Department; providing for the applicability of the provisions of this Ordinance; providing certain transition provisions, including the application of the provisions of this Ordinance to development projects in process as of a certain date; providing for the severability of provisions of this Ordinance; providing for the effective date of this Ordinance; and generally relating to regulating the development of land in the Town.

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**BY** repealing  
Chapter 116 – Stormwater Management  
Code of the Town of Indian Head  
(1990 Edition as amended)

**BY** adding  
Chapter 116 – Stormwater Management  
Sections 116-1 through 116-14  
Code of the Town of Indian Head  
(1990 Edition as amended)

MAY 26 2010

**SECTION 1. BE IT ENACTED BY THE COUNCIL OF THE TOWN OF INDIAN HEAD,** That Chapter 116, STORMWATER MANAGEMENT, of the Code of the Town (1990 Edition, as amended), is repealed in its entirety, and new Chapter 116, STORMWATER MANAGEMENT, consisting of Sections 116-1 through 116-14, inclusive, is added to the Code of the Town (1990 Edition and supplements) to stand in the place of the Chapter so repealed and to read as follows:

## **Chapter 116**

### **STORMWATER MANAGEMENT**

#### **116-1 PURPOSE AND AUTHORITY**

- A. THE PURPOSE OF THIS CHAPTER IS TO PROTECT, MAINTAIN, AND ENHANCE THE PUBLIC HEALTH, SAFETY, AND GENERAL WELFARE BY ESTABLISHING MINIMUM REQUIREMENTS AND PROCEDURES TO CONTROL THE ADVERSE IMPACTS ASSOCIATED WITH INCREASED STORMWATER RUNOFF. THE GOAL IS TO MANAGE STORMWATER BY USING ENVIRONMENTAL SITE DESIGN (ESD) TO THE MAXIMUM EXTENT PRACTICABLE (MEP) TO MAINTAIN AFTER DEVELOPMENT AS NEARLY AS POSSIBLE, THE PREDEVELOPMENT RUNOFF CHARACTERISTICS, AND TO REDUCE STREAM CHANNEL EROSION, POLLUTION, SILTATION AND SEDIMENTATION, AND LOCAL FLOODING, AND USE APPROPRIATE STRUCTURAL BEST MANAGEMENT PRACTICES (BMP) ONLY WHEN NECESSARY. THIS WILL RESTORE, ENHANCE, AND MAINTAIN THE CHEMICAL, PHYSICAL, AND BIOLOGICAL INTEGRITY OF STREAMS, MINIMIZE DAMAGE TO PUBLIC AND PRIVATE PROPERTY, AND REDUCE THE IMPACTS OF LAND DEVELOPMENT.
- B. THE PROVISIONS OF THIS CHAPTER, PURSUANT TO THE ENVIRONMENT ARTICLE, TITLE 4, SUBTITLE 2, ANNOTATED CODE OF MARYLAND, 2009 REPLACEMENT VOLUME, ARE ADOPTED UNDER THE AUTHORITY OF THE TOWN CODE AND SHALL APPLY TO ALL DEVELOPMENT OCCURRING WITHIN THE INCORPORATED AREA OF THE TOWN. THE APPLICATION OF THIS CHAPTER AND PROVISIONS EXPRESSED HEREIN SHALL BE THE MINIMUM STORMWATER MANAGEMENT REQUIREMENTS AND SHALL NOT BE DEEMED A LIMITATION OR REPEAL OF ANY OTHER POWERS GRANTED BY STATE STATUTE. THE TOWN SHALL BE RESPONSIBLE FOR THE COORDINATION AND ENFORCEMENT OF THE PROVISIONS OF THIS CHAPTER.

## **116-2 INCORPORATION BY REFERENCE**

FOR THE PURPOSE OF THIS CHAPTER, THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE:

- A. THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I & II (MARYLAND DEPARTMENT OF THE ENVIRONMENT, APRIL 2000), AND ALL SUBSEQUENT REVISIONS, IS INCORPORATED BY REFERENCE BY THE TOWN AND SHALL SERVE AS THE OFFICIAL GUIDE FOR STORMWATER MANAGEMENT PRINCIPLES, METHODS, AND PRACTICES.
- B. USDA NATURAL RESOURCES CONSERVATION SERVICE MARYLAND CONSERVATION PRACTICE STANDARD POND CODE 378 (JANUARY 2000).

## **116-3 DEFINITIONS**

- A. THE FOLLOWING DEFINITIONS ARE PROVIDED FOR THE TERMS USED IN THIS CHAPTER:
  - (1) "ADMINISTRATION" MEANS THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) WATER MANAGEMENT ADMINISTRATION (WMA).
  - (2) "ADVERSE IMPACT" MEANS ANY DELETERIOUS EFFECT ON WATERS OR WETLANDS, INCLUDING THEIR QUALITY, QUANTITY, SURFACE AREA, SPECIES COMPOSITION, AESTHETICS OR USEFULNESS FOR HUMAN OR NATURAL USES WHICH ARE OR MAY POTENTIALLY BE HARMFUL OR INJURIOUS TO HUMAN HEALTH, WELFARE, SAFETY OR PROPERTY, TO BIOLOGICAL PRODUCTIVITY, DIVERSITY, OR STABILITY OR WHICH UNREASONABLY INTERFERE WITH THE ENJOYMENT OF LIFE OR PROPERTY, INCLUDING OUTDOOR RECREATION.
  - (3) "AGRICULTURAL LAND MANAGEMENT PRACTICES" MEANS THOSE METHODS AND PROCEDURES USED IN THE CULTIVATION OF LAND IN ORDER TO FURTHER CROP AND LIVESTOCK PRODUCTION AND CONSERVATION OF RELATED SOIL AND WATER RESOURCES.
  - (4) "APPLICANT" MEANS ANY PERSON, FIRM, OR GOVERNMENTAL AGENCY WHO EXECUTES THE NECESSARY FORMS TO PROCURE OFFICIAL APPROVAL OF A PROJECT OR A PERMIT TO CARRY OUT CONSTRUCTION OF A PROJECT.
  - (5) "APPROVING AGENCY" MEANS THE ENTITY RESPONSIBLE FOR REVIEW AND APPROVAL OF STORMWATER MANAGEMENT PLANS.

- (6) "AQUIFER" MEANS A POROUS WATER BEARING GEOLOGIC FORMATION GENERALLY RESTRICTED TO MATERIALS CAPABLE OF YIELDING AN APPRECIABLE SUPPLY OF WATER.
- (7) "BEST MANAGEMENT PRACTICE (BMP)" MEANS A STRUCTURE DEVICE OR NONSTRUCTURAL PRACTICE DESIGNED TO TEMPORARILY STORE OR TREAT STORMWATER RUNOFF IN ORDER TO MITIGATE FLOODING, REDUCE POLLUTION, AND PROVIDE OTHER AMENITIES.
- (8) "CHANNEL PROTECTION STORAGE VOLUME (CP<sub>v</sub>)" MEANS THE VOLUME USED TO DESIGN STRUCTURAL MANAGEMENT PRACTICES TO CONTROL STREAM CHANNEL EROSION. METHODS FOR CALCULATING THE CHANNEL PROTECTION STORAGE VOLUME ARE SPECIFIED IN THE 2000 MARYLAND STORMWATER DESIGN MANUAL.
- (9) "CLEARING" MEANS THE REMOVAL OF TREES AND BRUSH FROM THE LAND BUT SHALL NOT INCLUDE THE ORDINARY MOWING OF GRASS.
- (10) "CONCEPT PLAN" MEANS THE FIRST OF THREE REQUIRED PLAN APPROVALS THAT INCLUDES THE INFORMATION NECESSARY TO ALLOW AN INITIAL EVALUATION OF A PROPOSED PROJECT.
- (11) "DESIGN MANUAL" MEANS THE 2000 MARYLAND STORMWATER DESIGN MANUAL, AND ALL SUBSEQUENT REVISIONS, THAT SERVES AS THE OFFICIAL GUIDE FOR STORMWATER MANAGEMENT PRINCIPLES, METHODS, AND PRACTICES.
- (12) "DETENTION STRUCTURE" MEANS A PERMANENT STRUCTURE FOR THE TEMPORARY STORAGE OF RUNOFF WHICH IS DESIGNED SO AS NOT TO CREATE A PERMANENT POOL OF WATER.
- (13) "DEVELOP LAND" MEANS TO CHANGE THE RUNOFF CHARACTERISTICS OF A PARCEL OF LAND IN CONJUNCTION WITH RESIDENTIAL, COMMERCIAL, INDUSTRIAL, OR INSTITUTIONAL CONSTRUCTION OR ALTERATION.
- (14) "DIRECT DISCHARGE" MEANS THE CONCENTRATED RELEASE OF STORMWATER TO TIDAL WATERS OR VEGETATED TIDAL WETLANDS FROM NEW DEVELOPMENT OR REDEVELOPMENT PROJECTS IN THE CRITICAL AREA.

- (15) "DRAINAGE AREA" MEANS THAT AREA CONTRIBUTING RUNOFF TO A SINGLE POINT MEASURED IN A HORIZONTAL PLANE, WHICH IS ENCLOSED BY A RIDGE LINE.
- (16) "DRAINAGE AREA PLAN" MEANS A PLAN DEVELOPED TO TREAT STORMWATER RUNOFF OFF-SITE AT THE NATURAL LOW POINT OF AN AREA INCLUDING ONE OR MORE INDIVIDUAL LOTS.
- (17) "EASEMENT" MEANS A GRANT OR RESERVATION BY THE OWNER OF LAND FOR THE USE OF SUCH LAND BY OTHERS FOR A SPECIFIC PURPOSE OR PURPOSES, AND WHICH MUST BE INCLUDED IN THE CONVEYANCE OF LAND AFFECTED BY SUCH EASEMENT.
- (18) "ENVIRONMENTAL SITE DESIGN (ESD)" MEANS USING SMALL-SCALE STORMWATER MANAGEMENT PRACTICES, NONSTRUCTURAL TECHNIQUES, AND BETTER SITE PLANNING TO MIMIC NATURAL HYDROLOGIC RUNOFF CHARACTERISTICS AND MINIMIZE THE IMPACT OF LAND DEVELOPMENT ON WATER RESOURCES. METHODS FOR DESIGNING ESD PRACTICES ARE SPECIFIED IN THE DESIGN MANUAL.
- (19) "EXEMPTION" MEANS THOSE LAND DEVELOPMENT ACTIVITIES THAT ARE NOT SUBJECT TO THE STORMWATER MANAGEMENT REQUIREMENTS OBTAINED IN THIS CHAPTER.
- (20) "EXTENDED DETENTION" MEANS A STORMWATER DESIGN FEATURE THAT PROVIDES GRADUAL RELEASE OF A VOLUME OF WATER IN ORDER TO INCREASE SETTLING OF POLLUTANTS AND PROTECT DOWNSTREAM CHANNELS FROM FREQUENT STORM EVENTS. METHODS FOR DESIGNING EXTENDED DETENTION BMPs ARE SPECIFIED IN THE DESIGN MANUAL.
- (21) "EXTREME FLOOD VOLUME ( $Q_F$ )" MEANS THE STORAGE VOLUME REQUIRED TO CONTROL THOSE INFREQUENT BUT LARGE STORM EVENTS IN WHICH OVERBANK FLOWS REACH OR EXCEED THE BOUNDARIES OF THE 100-YEAR FLOODPLAIN.
- (22) "FEE IN LIEU" MEANS A FEE PAID TO A STORMWATER CAPITAL IMPROVEMENT FUND MANAGED BY THE TOWN, IN PLACE OF STORMWATER MANAGEMENT, TO BE USED TO RETROFIT EXISTING STORMWATER MANAGEMENT FEATURES. THIS FEE MAY BE ALLOWED WHEN THE PROPERTY WILL NOT SUPPORT ENOUGH ESD FEATURES TO MEET THE REQUIREMENTS FOR A PARTICULAR SITE WITHOUT REDUCING THE DENSITY BELOW THE MAXIMUM ALLOWABLE IN THE APPLICABLE ZONE.

- (23) "FINAL PROJECT APPROVAL" MEANS THAT THE APPROPRIATE LOCAL AUTHORITY HAS APPROVED THE FINAL EROSION AND SEDIMENT CONTROL PLAN FOR THE PROJECT'S STORMWATER FACILITIES AND APPROVED THE FINAL STORMWATER MANAGEMENT PLAN AND THAT THE TOWN HAS APPROVED THE FINAL SITE PLAN FOR THE PROJECT. ADDITIONALLY, A "FINAL PROJECT APPROVAL" MAY INCLUDE THE REQUIREMENT THAT BONDING AND/OR FINANCING HAS BEEN SECURED BASED ON THE FINAL PLANS FOR THE DEVELOPMENT IF THIS IS CURRENTLY REQUIRED AS PART OF THE TOWN'S PRELIMINARY PLAN APPROVAL PROCESS.
- (24) "FINAL STORMWATER MANAGEMENT PLAN" MEANS THE LAST OF THREE REQUIRED PLAN APPROVALS THAT INCLUDES THE INFORMATION NECESSARY TO ALLOW ALL APPROVALS AND PERMITS TO BE ISSUED BY THE APPROVING AGENCY.
- (25) "FLOW ATTENUATION" MEANS PROLONGING THE FLOW TIME OF RUNOFF TO REDUCE THE PEAK DISCHARGE.
- (26) "GRADING" MEANS ANY ACT BY WHICH SOIL IS CLEARED, STRIPPED, STOCKPILED, EXCAVATED, SCARIFIED, FILLED, OR ANY COMBINATION THEREOF.
- (27) "HIGHWAY CORRIDOR OVERLAY ZONE" MEANS A SPECIAL ZONING OVERLAY DISTRICT AS ESTABLISHED AND DESCRIBED IN THE TOWN ZONING ORDINANCE, AND AS DEPICTED ON THE OFFICIAL ZONING MAP OF THE TOWN.
- (28) "IMPERVIOUS AREA" MEANS ANY SURFACE THAT DOES NOT ALLOW STORMWATER TO INFILTRATE INTO THE GROUND.
- (29) "INFILTRATION" MEANS THE PASSAGE OR MOVEMENT OF WATER INTO THE SOIL SURFACE.
- (30) "LOD" (LIMITS OF DISTURBANCE) MEANS THE BOUNDARIES OF THE AREA THAT IS DISTURBED DURING DEVELOPMENT OR REDEVELOPMENT PROJECTS.
- (31) "MAXIMUM EXTENT PRACTICABLE (MEP)" MEANS DESIGNING STORMWATER MANAGEMENT SYSTEMS SO THAT ALL REASONABLE OPPORTUNITIES FOR USING ESD PLANNING TECHNIQUES AND TREATMENT PRACTICES ARE EXHAUSTED AND ONLY WHERE ABSOLUTELY NECESSARY, A STRUCTURAL BMP IS IMPLEMENTED.

- (32) "OFF-SITE STORMWATER MANAGEMENT" MEANS THE DESIGN AND CONSTRUCTION OF A FACILITY OFF-SITE TO CONTROL STORMWATER FROM MORE THAN ONE BUILDING LOT OR DEVELOPMENT.
- (33) "ON-SITE STORMWATER MANAGEMENT" MEANS THE DESIGN AND CONSTRUCTION OF SYSTEMS NECESSARY TO CONTROL STORMWATER WITHIN AN IMMEDIATE DEVELOPMENT.
- (34) "OVERBANK FLOOD PROTECTION VOLUME (QP)" MEANS THE VOLUME CONTROLLED BY STRUCTURAL PRACTICES TO PREVENT AN INCREASE IN THE FREQUENCY OF OUT-OF-BANK FLOODING GENERATED BY DEVELOPMENT. METHODS OF CALCULATING THE OVERBANK FLOOD PROTECTION VOLUME ARE SPECIFIED IN THE DESIGN MANUAL.
- (35) "OWNER" MEANS A PERSON THAT:
- (a) DESIGNS AND/OR CONSTRUCTS STORMWATER MANAGEMENT FACILITIES FOR A PROJECT OR DEVELOPMENT: OR
  - (b) OWNS OR OPERATES A PRIVATE STORMWATER FACILITY; OR
  - (c) OWNS LAND SERVED BY A PRIVATE STORMWATER MANAGEMENT FACILITY.
- (36) "PERMEABLE PAVING" MEANS MATERIAL THAT WILL PROVIDE A FIRM SURFACE BUT ALLOW STORMWATER TO INFILTRATE INTO THE GROUND.
- (37) "PERVIOUS AREA" MEANS ANY SURFACE THAT ALLOWS STORMWATER TO INFILTRATE INTO THE GROUND.
- (38) "PERSON" MEANS THE FEDERAL GOVERNMENT, THE STATE, ANY COUNTY, MUNICIPAL CORPORATION, OR OTHER POLITICAL SUBDIVISION OF THE STATE, OR ANY OF THEIR UNITS, OR AN INDIVIDUAL RECEIVER, TRUSTEE, GUARDIAN, EXECUTOR, ADMINISTRATOR, FIDUCIARY, OR REPRESENTATIVE OF ANY KIND, OR ANY PARTNERSHIP, FIRM, ASSOCIATION, PUBLIC OR PRIVATE CORPORATION, OR ANY OTHER ENTITY.
- (39) "PLANNING TECHNIQUES" MEANS A COMBINATION OF STRATEGIES EMPLOYED EARLY IN PROJECT DESIGN TO REDUCE THE IMPACT FROM DEVELOPMENT AND TO INCORPORATE NATURAL FEATURES INTO A STORMWATER MANAGEMENT PLAN.

(40) "PRELIMINARY PROJECT APPROVAL" MEANS A PLAN APPROVAL, OR ACCEPTANCE, OR REVIEW BY A LOCAL JURISDICTION THAT INCLUDES THE FOLLOWING AS PART OF THE LOCAL JURISDICTION'S PRELIMINARY PLANNING APPROVAL PROCESS AT A MINIMUM:

(a) NUMBER OF PLANNED DWELLING UNITS OR LOTS AND PROPOSED DENSITY;

(b) PROPOSED SIZE AND LOCATION OF ALL OTHER LAND USES IN THE PROJECT; AND

(c) A PLAN THAT IDENTIFIES THE PROPOSED DRAINAGE PATTERNS, LOCATIONS OF ALL POINTS OF DISCHARGE FROM THE SITE, AND THE TYPE, LOCATION AND SIZE OF ALL STORMWATER MANAGEMENT REQUIREMENTS.

ADDITIONALLY, A "PRELIMINARY PROJECT APPROVAL" MAY INCLUDE THE FOLLOWING ITEMS IF CURRENTLY REQUIRED AS PART OF A LOCAL JURISDICTION'S PRELIMINARY PLANNING APPROVAL PROCESS:

(a) THE PROPOSED ALIGNMENT, LOCATION AND CONSTRUCTION TYPE AND STANDARD FOR ALL PROPOSED ROADS, ACCESS WAYS AND AREAS OF VEHICULAR TRAVEL;

(b) THE PROPOSED METHOD AND ADEQUACY OF WASTEWATER DISPOSAL AND PROVISIONS OF POTABLE WATER;

(c) THE GENERAL LOCATION, SIZE AND TYPE OF ALL INFRASTRUCTURE PROPOSED FOR WATER AND WASTEWATER SYSTEMS; OR

(d) AND ANY OTHER INFORMATION DEEMED NECESSARY BY THE LOCAL JURISDICTION TO ADEQUATELY REVIEW THE PROPOSAL.

(41) "RECHARGE VOLUME ( $RE_v$ )" MEANS THAT PORTION OF THE WATER QUALITY VOLUME USED TO MAINTAIN GROUNDWATER RECHARGE RATES AT DEVELOPMENT SITES. METHODS FOR RECALCULATING THE RECHARGE VOLUME ARE SPECIFIED IN THE DESIGN MANUAL.

(42) "REDEVELOPMENT" MEANS ANY CONSTRUCTION, ALTERATION, OR IMPROVEMENT EXCEEDING FIVE THOUSAND (5,000) SQUARE



FEET OF LAND DISTURBANCE PERFORMED ON SITES WHERE EXISTING LAND USE IS COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, OR MULTIFAMILY RESIDENTIAL AND EXISTING SITE IMPERVIOUS AREA EXCEEDS 40 PERCENT OR THE PROPOSED DEVELOPMENT IS LOCATED IN THE HIGHWAY CORRIDOR OVERLAY ZONE.

- (43) "RETENTION STRUCTURE" MEANS A PERMANENT STRUCTURE THAT PROVIDES FOR THE STORAGE OF RUNOFF BY MEANS OF A PERMANENT POOL OF WATER.
- (44) "RETROFITTING" MEANS THE IMPLEMENTATION OF ESD PRACTICES, THE CONSTRUCTION OF STRUCTURAL BMP, OR THE MODIFICATION OF AN EXISTING STRUCTURAL BMP IN A PREVIOUSLY DEVELOPED AREA TO IMPROVE WATER QUALITY OVER CURRENT CONDITIONS.
- (45) "SEDIMENT" MEANS SOILS OR OTHER SURFICIAL MATERIALS TRANSPORTED OR DEPOSITED BY THE ACTION OF WIND, WATER, ICE, OR GRAVITY AS A PRODUCT OF EROSION.
- (46) "SITE" MEANS ANY TRACT, LOT, OR PARCEL OF LAND, OR COMBINATION OF TRACTS, LOTS, PARCELS OF LAND THAT ARE IN ONE OWNERSHIP, OR ARE CONTIGUOUS AND IN DIVERSE OWNERSHIP, WHERE DEVELOPMENT IS TO BE PERFORMED AS PART OF A UNIT, SUBDIVISION, OR PROJECT.
- (47) "SITE DEVELOPMENT PLAN" MEANS THE SECOND OF THREE REQUIRED PLAN APPROVALS THAT INCLUDES THE INFORMATION NECESSARY TO ALLOW A DETAILED EVALUATION OF A PROPOSED PROJECT.
- (48) "STABILIZATION" MEANS THE PREVENTION OF SOIL MOVEMENT BY ANY OF VARIOUS VEGETATIVE AND/OR STRUCTURAL MEANS.
- (49) "STORMWATER" MEANS WATER THAT ORIGINATES FROM A PRECIPITATION EVENT.
- (50) "STORMWATER CAPITAL IMPROVEMENTS FUND" MEANS A FUND ESTABLISHED TO PAY FOR RETROFITTING EXISTING STORMWATER FACILITIES, BUILDING NEW FACILITIES AND REPLACING DETERIORATING PORTIONS OF THE TOWN'S STORMWATER MANAGEMENT SYSTEM.
- (51) "STORMWATER MANAGEMENT PLAN MEANS A SET OF DRAWINGS OR OTHER DOCUMENTS SUBMITTED BY A PERSON AS A

PREREQUISITE TO OBTAINING A STORMWATER MANAGEMENT APPROVAL, WHICH CONTAIN ALL OF THE INFORMATION AND SPECIFICATIONS PERTAINING TO STORMWATER MANAGEMENT.

- (52) "STORMWATER MANAGEMENT SYSTEM" MEANS NATURAL AREAS, ESD PRACTICES, STORMWATER MANAGEMENT MEASURES, AND ANY OTHER STRUCTURE THROUGH WHICH STORMWATER FLOWS, INFILTRATES, OR DISCHARGES FROM A SITE.
- (53) "STORMWATER GRANDFATHER WAIVER" MEANS A DECISION BY THE APPROVING AGENCY TO ALLOW THE CONSTRUCTION OF A DEVELOPMENT TO BE GOVERNED BY THE TOWN'S STORMWATER MANAGEMENT ORDINANCE IN EFFECT AS OF MAY 4, 2009. A STORMWATER WAIVER IS DISTINCT FROM A WAIVER GRANTED PURSUANT TO SECTION 116-4.3 OF THIS CHAPTER.
- (54) "STRIPPING" MEANS ANY ACTIVITY THAT REMOVES THE VEGETATIVE SURFACE COVER INCLUDING TREE REMOVAL, CLEARING, GRUBBING, AND STORAGE OR REMOVAL OF TOPSOIL.
- (55) "TOWN" MEANS TOWN OF INDIAN HEAD.
- (56) "VARIANCE" MEANS THE MODIFICATION OF THE MINIMUM STORMWATER MANAGEMENT REQUIREMENTS FOR SPECIFIC CIRCUMSTANCES SUCH THAT STRICT ADHERENCE TO THE REQUIREMENTS WOULD RESULT IN UNNECESSARY HARDSHIP AND NOT FULFILL THE INTENT OF THIS CHAPTER.
- (57) "WAIVER" MEANS THE REDUCTION OF STORMWATER MANAGEMENT REQUIREMENTS BY THE Town FOR A SPECIFIC DEVELOPMENT ON A CASE-BY-CASE REVIEW BASIS.
- (58) "WATERCOURSE" MEANS ANY NATURAL OR ARTIFICIAL STREAM, RIVER, CREEK, DITCH, CHANNEL, CANAL, CONDUIT, CULVERT, DRAIN, WATERWAY, GULLY, RAVINE OR WASH, IN AND INCLUDING ANY ADJACENT AREA THAT IS SUBJECT TO INUNDATION FROM OVERFLOW OR FLOOD WATER.
- (59) "WATER QUALITY VOLUME (WQ<sub>v</sub>)" MEANS THE VOLUME NEEDED TO CAPTURE AND TREAT 90 PERCENT OF THE AVERAGE ANNUAL RAINFALL EVENTS AT A DEVELOPMENT SITE. METHODS FOR CALCULATING THE WATER QUALITY VOLUME ARE SPECIFIED IN THE DESIGN MANUAL.
- (60) "WATERSHED" MEANS THE TOTAL DRAINAGE AREA CONTRIBUTING RUNOFF TO A SINGLE POINT.

- (61) "WATERSHED MANAGEMENT PLAN" MEANS A PLAN DEVELOPED TO LIMIT THE STORMWATER RUNOFF AND NONPOINT POLLUTION IN A WATERSHED.

#### **116-4 APPLICABILITY**

##### **116-4.1 SCOPE**

- A. NO PERSON SHALL DEVELOP ANY LAND FOR RESIDENTIAL, COMMERCIAL, INDUSTRIAL, OR INSTITUTIONAL USES WITHOUT PROVIDING STORMWATER MANAGEMENT MEASURES THAT CONTROL OR MANAGE RUNOFF FROM SUCH DEVELOPMENTS, EXCEPT AS PROVIDED WITHIN THIS SECTION 116-4. STORMWATER MANAGEMENT MEASURES MUST BE DESIGNED CONSISTENT WITH THE DESIGN MANUAL AND CONSTRUCTED ACCORDING TO AN APPROVED PLAN FOR NEW DEVELOPMENT OR THE POLICIES STATED IN SECTION 116-4.4 FOR REDEVELOPMENT.
- B. ALL ESD FEATURES OR BMPs INCLUDED ON A FINAL STORMWATER PLAN MUST BE READILY AVAILABLE FOR INSPECTION BY THE TOWN AND ACCESSIBLE FOR MAINTENANCE.

##### **116-4.2 EXEMPTIONS**

THE FOLLOWING DEVELOPMENT ACTIVITIES ARE EXEMPT FROM THE PROVISIONS OF THIS CHAPTER AND THE REQUIREMENTS OF PROVIDING STORMWATER MANAGEMENT:

- A. AGRICULTURAL LAND MANAGEMENT PRACTICES;
- B. ADDITIONS OR MODIFICATIONS TO EXISTING SINGLE FAMILY DETACHED RESIDENTIAL STRUCTURES IF THEY COMPLY WITH SUBSECTION C OF THIS SECTION;
- C. ANY DEVELOPMENTS THAT DO NOT DISTURB OVER 5,000 SQUARE FEET OF LAND AREA; AND
- D. LAND DEVELOPMENT ACTIVITIES THAT THE ADMINISTRATION DETERMINES WILL BE REGULATED UNDER SPECIFIC STATE LAWS, WHICH PROVIDE FOR MANAGEMENT STORMWATER RUNOFF.

##### **116-4.3 WAIVERS/WATERSHED MANAGEMENT PLANS**

- A. THE TOWN SHALL GRANT STORMWATER MANAGEMENT QUANTITATIVE CONTROL WAIVERS ONLY TO THOSE PROJECTS WITHIN AREAS WHERE

WATERSHED MANAGEMENT PLANS (WMP) HAVE BEEN DEVELOPED CONSISTENT WITH SUBSECTION G. OF THIS SECTION. WRITTEN REQUESTS FOR QUANTITATIVE STORMWATER MANAGEMENT WAIVERS SHALL BE SUBMITTED THAT CONTAIN SUFFICIENT DESCRIPTIONS, DRAWINGS, AND ANY OTHER INFORMATION THAT IS NECESSARY TO DEMONSTRATE THAT ESD HAS BEEN IMPLEMENTED TO THE MEP. A SEPARATE WRITTEN WAIVER REQUEST SHALL BE REQUIRED IN ACCORDANCE WITH THE PROVISIONS OF THIS IF THERE ARE SUBSEQUENT ADDITIONS, EXTENSIONS, OR MODIFICATIONS TO A DEVELOPMENT RECEIVING A WAIVER AND IF WARRANTED BASED ON THE EXTENT OF THE MODIFICATIONS AS DETERMINED BY THE TOWN.

B. SUBJECT TO THE LIMITATIONS SET FORTH IN SUBSECTIONS C. AND D. OF THIS SECTION, IF WATERSHED MANAGEMENT PLANS CONSISTENT WITH SUBSECTION G. OF THIS SECTION HAVE NOT BEEN DEVELOPED, STORMWATER MANAGEMENT QUANTITATIVE CONTROL WAIVERS MAY BE GRANTED TO THE FOLLOWING PROJECTS PROVIDED THAT IT HAS BEEN DEMONSTRATED THAT ESD HAS BEEN IMPLEMENTED TO THE MEP:

- (1) PROJECTS THAT HAVE DIRECT DISCHARGES TO TIDALLY INFLUENCED RECEIVING WATERS; OR
- (2) WHEN THE TOWN DETERMINES THAT CIRCUMSTANCES EXIST THAT PREVENT THE REASONABLE IMPLEMENTATION OF QUANTITY CONTROL PRACTICES.

C. STORMWATER MANAGEMENT QUALITATIVE CONTROL WAIVERS APPLY ONLY TO:

- (1) IN-FILL DEVELOPMENT PROJECTS WHERE ESD HAS BEEN IMPLEMENTED TO THE MEP AND IT HAS BEEN DEMONSTRATED THAT OTHER BMPS ARE NOT FEASIBLE;
- (2) REDEVELOPMENT PROJECTS IF THE REQUIREMENTS OF SECTION 116-4.4 ARE SATISFIED; OR
- (3) SITES WHERE THE Town DETERMINES THAT CIRCUMSTANCES EXIST THAT PREVENT THE REASONABLE IMPLEMENTATION OF ESD TO THE MEP.

C. ALTHOUGH PROJECTS WITH LESS THAN 40% EXISTING IMPERVIOUSNESS WOULD NORMALLY REQUIRE FULL IMPLEMENTATION OF ESD TO THE MEP, CIRCUMSTANCES MAY EXIST THAT PREVENT THE REASONABLE IMPLEMENTATION OF THESE REQUIREMENTS. FOR THESE PROJECTS, A WAIVER OF THE REQUIREMENT OF THIS CHAPTER

MAY BE ISSUED BY THE TOWN AS LONG AS A DEMONSTRATION IS MADE THAT ADEQUATE CONVEYANCE EXISTS AND STREAMS WILL NOT BE DEGRADED. APPROPRIATE CIRCUMSTANCES WHERE A WAIVER MAY BE CONSIDERED INCLUDE:

- (1) PHASED PROJECTS THAT HAVE ALREADY CONSTRUCTED STORMWATER MANAGEMENT FACILITIES DESIGNED TO MEET 2000 REGULATORY REQUIREMENTS; AND
- (2) PROJECTS IN A PFA WHERE THE IMPERVIOUS COVER IS LESS THAN 40% BUT WHERE A QUANTITATIVE WAIVER FOR THE EXISTING IMPERVIOUS COVER IS REQUIRED TO MAINTAIN THE REQUIRED DENSITY. IN THIS CASE, IT IS ASSUMED THAT ESD TO THE MEP IS BEING PROVIDED TO MEET THE ENTIRE WATER QUALITY VOLUME.

E. STORMWATER MANAGEMENT WAIVERS AS SUBSECTION D SHALL ONLY BE GRANTED WHEN IT HAS BEEN DEMONSTRATED THAT ESD HAS BEEN IMPLEMENTED TO THE MEP AND MUST:

- (1) BE ON A CASE-BY-CASE BASIS;
- (2) CONSIDER THE CUMULATIVE EFFECTS OF THE Town WAIVER POLICY; AND
- (3) REASONABLY ENSURE THE DEVELOPMENT WILL NOT ADVERSELY IMPACT STREAM QUALITY.

F. IF THE TOWN HAS ESTABLISHED AN OVERALL WATERSHED MANAGEMENT PLAN FOR A SPECIFIC WATERSHED, THEN THE TOWN MAY DEVELOP QUANTITATIVE WAIVER AND REDEVELOPMENT PROVISIONS THAT DIFFER FROM SECTIONS 116-4.3 B AND 116-4.4 OF THIS CHAPTER.

G. A WATERSHED MANAGEMENT PLAN DEVELOPED FOR THE PURPOSE OF IMPLEMENTING DIFFERENT STORMWATER MANAGEMENT POLICIES FOR WAIVERS AND REDEVELOPMENT SHALL:

- (1) INCLUDE DETAILED HYDROLOGIC AND HYDRAULIC ANALYSES TO DETERMINE HYDROGRAPH TIMING;
- (2) EVALUATE BOTH QUANTITY AND QUALITY MANAGEMENT AND OPPORTUNITIES FOR ESD IMPLEMENTATION;
- (3) INCLUDE A CUMULATIVE IMPACT ASSESSMENT OF CURRENT AND PROPOSED WATERSHED DEVELOPMENT;

- (4) IDENTIFY EXISTING FLOODING AND RECEIVING STREAM CHANNEL CONDITIONS;
  - (5) BE CONDUCTED AT A REASONABLE SCALE;
  - (6) SPECIFY WHERE ON-SITE OR OFF-SITE QUANTITATIVE AND QUALITATIVE STORMWATER MANAGEMENT PRACTICES ARE TO BE IMPLEMENTED;
  - (7) BE CONSISTENT WITH THE GENERAL PERFORMANCE STANDARDS FOR STORMWATER MANAGEMENT IN MARYLAND FOUND IN SECTION 1.2 OF THE DESIGN MANUAL AS AMENDED FROM TIME TO TIME; AND
  - (8) BE APPROVED BY THE ADMINISTRATION.
- H. THE TOWN MAY GRANT A WAIVER OF QUANTITATIVE STORMWATER MANAGEMENT REQUIREMENTS FOR INDIVIDUAL DEVELOPMENTS IN AREAS WHERE WATERSHED MANAGEMENT PLANS HAVE BEEN DEVELOPED PROVIDED THAT A WRITTEN REQUEST IS SUBMITTED BY THE APPLICANT CONTAINING DESCRIPTIONS, DRAWINGS AND ANY OTHER INFORMATION THAT IS NECESSARY TO EVALUATE THE PROPOSED DEVELOPMENT. A SEPARATE WRITTEN WAIVER REQUEST SHALL BE REQUIRED IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION IF THERE ARE SUBSEQUENT ADDITIONS, EXTENSIONS OR MODIFICATIONS TO A DEVELOPMENT RECEIVING A WAIVER.

**116-4.4 Redevelopment**

- A. STORMWATER MANAGEMENT PLANS ARE REQUIRED BY THE TOWN FOR ALL REDEVELOPMENT, UNLESS OTHERWISE SPECIFIED BY WATERSHED MANAGEMENT PLANS DEVELOPED ACCORDING TO SECTION 116-4.3 G. OF THIS CHAPTER. STORMWATER MANAGEMENT MEASURES MUST BE CONSISTENT WITH THE DESIGN MANUAL.
- B. ALL REDEVELOPMENT DESIGNS SHALL MEET ONE OR MORE OF THE FOLLOWING:
  - (1) REDUCE IMPERVIOUS AREA WITHIN THE LIMIT OF DISTURBANCE (LOD) BY AT LEAST 50 PERCENT ACCORDING TO THE DESIGN MANUAL.
  - (2) IMPLEMENT ESD TO THE MEP TO PROVIDE WATER QUALITY TREATMENT FOR AT LEAST 50 PERCENT OF THE EXISTING IMPERVIOUS AREA WITHIN THE LOD; OR

- (3) USE A COMBINATION OF SECTION 116-4.4 B. (1) AND (2) OF THIS CHAPTER FOR AT LEAST 50 PERCENT OF THE EXISTING SITE IMPERVIOUS AREA.
- C. ALTERNATIVE STORMWATER MANAGEMENT MEASURES MAY BE USED TO MEET THE REQUIREMENTS IN SECTION 116-4.4 B. OF THIS CHAPTER IF THE OWNER/DEVELOPER SATISFACTORILY DEMONSTRATES TO THE TOWN THAT IMPERVIOUS AREA REDUCTION HAS BEEN MAXIMIZED AND ESD HAS BEEN IMPLEMENTED TO THE MEP. ALTERNATIVE STORMWATER MANAGEMENT MEASURES INCLUDE, BUT ARE NOT LIMITED TO:
- (1) AN ON-SITE STRUCTURAL BMP;
  - (2) AN OFF-SITE STRUCTURAL BMP TO PROVIDE WATER QUALITY TREATMENT FOR AN AREA EQUAL TO OR GREATER THAN 50 PERCENT OF THE EXISTING IMPERVIOUS AREA; OR
  - (3) A COMBINATION OF IMPERVIOUS AREA REDUCTION, ESD IMPLEMENTATION, AND AN ON-SITE OR OFF-SITE STRUCTURAL BMP FOR AN AREA EQUAL TO OR GREATER THAN 50 PERCENT OF THE EXISTING SITE IMPERVIOUS AREA WITHIN THE LOD.
- D. FOR REDEVELOPMENT PROJECTS THAT CANNOT MEET THE REQUIRED 50% REDUCTION OR TREATMENT OF IMPERVIOUSNESS USING ESD, THE TOWN MAY ALLOW, IN ADDITION TO SUCH OTHER REMEDIES ALLOWED BY THE ADMINISTRATION, THE USE OF PROGRAMMATIC REMEDIES INCLUDING BUT NOT LIMITED TO:
- (1) OTHER TYPES OF RETROFITTING (BMP UPGRADES, FILTERING PRACTICES, IMPLEMENTING ESD OFF-SITE);
  - (2) RESTORATION OF STREAMS OR EXISTING STORMWATER FACILITIES;
  - (3) POLLUTION TRADING WITH ANOTHER ENTITY;
  - (4) DESIGN CRITERIA BASED ON WATERSHED MANAGEMENT PLANS DEVELOPED ACCORDING TO SECTION 116-4.3 G. OF THIS CHAPTER; OR
  - (5) FEES PAID IN LIEU OF ON-SITE ESD MEASURES THAT WOULD REDUCE THE DENSITY BELOW THE ALLOWED MAXIMUM FOR DEVELOPMENTS IN THE HIGHWAY CORRIDOR OVERLAY ZONE OR ZONES WHERE STORMWATER MANAGEMENT IS PROVIDED OFF

SITE. THE FEE IN LIEU OF STORMWATER MANAGEMENT WILL BE BASED ON THE SQUARE FOOT AREA OF THE PORTION OF THE SITE WITHIN THE LOD OF THE DEVELOPMENT, LESS THE ACTUAL COST OF ANY ESD FEATURES INSTALLED ON THE SITE. THE FEE WILL BE SET AND ADJUSTED FROM TIME TO TIME THROUGH THE NORMAL BUDGET PROCESS OF THE TOWN.

- (6) THE DETERMINATION OF WHAT ALTERNATIVE MEASURES OR WAIVERS WILL BE AVAILABLE MAY BE MADE BY THE TOWN AT THE APPROPRIATE POINT IN THE DEVELOPMENT REVIEW PROCESS. THE TOWN MAY MAKE A TIERED OR WAIVER PROCESS AT WHATEVER POINT IN THE LOCAL GOVERNMENT PROCESS THAT THE TOWN DEEMS MOST APPLICABLE. THE TOWN MAY USE THE FOLLOWING FACTORS IN DECIDING WHAT ALTERNATIVES MAY BE REQUIRED:

(a) WHETHER THE PROJECT IS IN AN AREA TARGETED FOR DEVELOPMENT INCENTIVES, SUCH AS A PRIORITY FUNDING AREA (PFA), A DESIGNATED TRANSIT ORIENTED DEVELOPMENT (TOD) AREA, OR A DESIGNATED BRAC REVITALIZATION AND INCENTIVE ZONE;

(b) WHETHER THE PROJECT IS NECESSARY TO ACCOMMODATE GROWTH CONSISTENT WITH THE COMPREHENSIVE PLAN;

(c) WHETHER THE PROJECT PROVIDES A SIGNIFICANT PUBLIC BENEFIT;

(d) WHETHER THE PROJECT IS ESSENTIAL TO THE ECONOMIC HEALTH OF THE LOCAL COMMUNITY; OR

(e) WHETHER BONDING AND/OR FINANCING HAS ALREADY BEEN SECURED BASED ON AN APPROVED DEVELOPMENT PLAN.

- E. STORMWATER MANAGEMENT SHALL BE ADDRESSED ACCORDING TO THE NEW DEVELOPMENT REQUIREMENTS IN THE DESIGN MANUAL FOR ANY NET INCREASE IN IMPERVIOUS AREA, EXCEPT IN THE HIGHWAY CORRIDOR OVERLAY ZONE WHERE A FEE IN LIEU MAY BE ACCEPTABLE TO THE TOWN.

#### **116-4.5 VARIANCE**

THE TOWN MAY GRANT A WRITTEN VARIANCE FROM ANY REQUIREMENT OF SECTION 116-5, STORMWATER MANAGEMENT CRITERIA, IF THERE ARE EXCEPTIONAL CIRCUMSTANCES APPLICABLE TO THE SITE SUCH THAT STRICT ADHERENCE WILL RESULT IN UNNECESSARY HARDSHIP AND NOT FULFILL THE



INTENT OF THIS CHAPTER. A WRITTEN REQUEST FOR VARIANCE SHALL BE PROVIDED TO THE TOWN AND SHALL STATE THE SPECIFIC VARIANCES SOUGHT AND REASONS FOR THEIR GRANTING. THE TOWN SHALL NOT GRANT A VARIANCE UNLESS AND UNTIL SUFFICIENT JUSTIFICATION IS PROVIDED BY THE PERSON DEVELOPING LAND THAT THE IMPLEMENTATION OF ESD TO THE MEP HAS BEEN INVESTIGATED THOROUGHLY.

## **116-5 STORMWATER MANAGEMENT CRITERIA**

### **116-5.1 MINIMUM CONTROL REQUIREMENTS**

A. THE MINIMUM CONTROL REQUIREMENTS ESTABLISHED IN THIS SECTION AND THE DESIGN MANUAL ARE AS FOLLOWS:

- (1) THE TOWN SHALL REQUIRE THAT THE PLANNING TECHNIQUES, NONSTRUCTURAL PRACTICES, AND DESIGN METHODS SPECIFIED IN THE DESIGN MANUAL BE USED TO IMPLEMENT ESD TO THE MEP. THE USE OF ESD PLANNING TECHNIQUES AND TREATMENT PRACTICES MUST BE EXHAUSTED BEFORE ANY STRUCTURAL BMP IS IMPLEMENTED. STORMWATER MANAGEMENT PLANS FOR DEVELOPMENT PROJECTS SUBJECT TO THIS CHAPTER SHALL BE DESIGNED USING ESD SIZING CRITERIA, RECHARGE VOLUME, WATER QUALITY VOLUME, AND CHANNEL PROTECTION STORAGE VOLUME CRITERIA ACCORDING TO THE DESIGN MANUAL. THE MEP STANDARD IS MET WHEN CHANNEL STABILITY IS MAINTAINED, PREDEVELOPMENT GROUNDWATER RECHARGE IS REPLICATED, NONPOINT SOURCE POLLUTION IS MINIMIZED, AND STRUCTURAL STORMWATER MANAGEMENT PRACTICES ARE USED ONLY IF DETERMINED TO BE ABSOLUTELY NECESSARY.
- (2) CONTROL OF THE 2-YEAR AND 10-YEAR FREQUENCY STORM EVENT IS REQUIRED ACCORDING TO THE DESIGN MANUAL AND ALL SUBSEQUENT REVISIONS IF THE TOWN DETERMINES THAT ADDITIONAL STORMWATER MANAGEMENT IS NECESSARY BECAUSE HISTORICAL FLOODING PROBLEMS EXIST AND DOWNSTREAM FLOODPLAIN DEVELOPMENT AND CONVEYANCE SYSTEM DESIGN CANNOT BE CONTROLLED.
- (3) THE TOWN MAY REQUIRE MORE THAN THE MINIMUM CONTROL REQUIREMENTS SPECIFIED IN THIS CHAPTER IF HYDROLOGIC OR TOPOGRAPHIC CONDITIONS WARRANT OR IF FLOODING, STREAM CHANNEL EROSION, OR WATER QUALITY PROBLEMS EXIST DOWNSTREAM FROM A PROPOSED PROJECT.

B. IN RESIDENTIAL DEVELOPMENTS WITH TCMX ZONING, STORMWATER ESD FEATURES OR BMPs MAY BE CLUSTERED TO TREAT RUNOFF FROM

MULTIPLE LOTS OR PARCELS WITHIN THE DEVELOPMENT TO KEEP FROM REDUCING THE OVERALL DENSITY BELOW THE MAXIMUM ALLOWED. REQUIRED GREEN SPACE, PARKS, FOREST CONSERVATION AREAS AND OTHER COMMUNAL OPEN SPACES MAY BE UTILIZED TO IMPLEMENT ESD FEATURES TO MEET THE OVERALL STORMWATER CONTROL REQUIREMENTS FOR SPECIFIC MULTIPLE LOT DRAINAGE AREAS.

- (1) STORMWATER MANAGEMENT REQUIREMENTS SHALL BE MET FOR EACH DRAINAGE AREA WITHIN THE DEVELOPMENT.
- (2) ESD SHALL BE USED TO THE MEP TO MEET THE STORMWATER REQUIREMENT IN EACH DRAINAGE AREA.
- (3) ALTERNATIVE MEASURES OR BMP FACILITIES WILL ONLY BE USED WHEN ESD IS NOT ABLE TO MEET STORMWATER MANAGEMENT REQUIREMENTS.

C. ALTERNATIVE MINIMUM CONTROL REQUIREMENTS MAY BE ADOPTED SUBJECT TO ADMINISTRATION APPROVAL UPON A DEMONSTRATION THAT ALTERNATIVE REQUIREMENTS WILL IMPLEMENT ESD TO THE MEP AND CONTROL FLOOD DAMAGES, ACCELERATED STREAM EROSION, WATER QUALITY, AND SEDIMENTATION. COMPREHENSIVE WATERSHED STUDIES MAY ALSO BE REQUIRED.

D. STORMWATER MANAGEMENT AND DEVELOPMENT PLANS WHERE APPLICABLE, SHALL BE CONSISTENT WITH ADOPTED AND APPROVED WATERSHED MANAGEMENT PLANS OR FLOOD MANAGEMENT PLANS AS APPROVED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT IN ACCORDANCE WITH THE FLOOD HAZARD MANAGEMENT ACT OF 1976.

#### **116-5.2 STORMWATER MANAGEMENT MEASURES**

THE ESD PLANNING TECHNIQUES AND PRACTICES AND STRUCTURAL STORMWATER MANAGEMENT MEASURES ESTABLISHED IN THIS CHAPTER AND THE DESIGN MANUAL SHALL BE USED, EITHER ALONE OR IN COMBINATION IN A STORMWATER MANAGEMENT PLAN. A DEVELOPER SHALL DEMONSTRATE THAT ESD HAS BEEN IMPLEMENTED TO THE MEP BEFORE THE USE OF A STRUCTURAL BMP IS CONSIDERED IN DEVELOPING THE STORMWATER MANAGEMENT PLAN.

A. ESD PLANNING TECHNIQUES AND PRACTICES.

- (1) THE FOLLOWING PLANNING TECHNIQUES SHALL BE APPLIED ACCORDING TO THE DESIGN MANUAL TO SATISFY THE

APPLICABLE MINIMUM CONTROL REQUIREMENTS ESTABLISHED IN SECTION 116-5.1 OF THIS CHAPTER.

- (A) PRESERVING AND PROTECTING NATURAL RESOURCES;
  - (B) CONSERVING NATURAL DRAINAGE PATTERNS;
  - (C) MINIMIZING IMPERVIOUS AREA;
  - (D) REDUCING RUNOFF VOLUME;
  - (E) USING ESD PRACTICES TO MAINTAIN 100 PERCENT OF THE ANNUAL PREDEVELOPMENT GROUNDWATER RECHARGE VOLUME;
  - (F) USING GREEN ROOFS, PERMEABLE PAVEMENT, REINFORCED TURF, AND OTHER ALTERNATIVE SURFACES;
  - (G) LIMITING SOIL DISTURBANCE, MASS GRADING, AND COMPACTION;
  - (H) CLUSTERING DEVELOPMENT; AND
  - (I) ANY PRACTICES APPROVED BY THE ADMINISTRATION.
- (2) THE FOLLOWING ESD TREATMENT PRACTICES SHALL BE DESIGNED ACCORDING TO THE DESIGN MANUAL TO SATISFY THE APPLICABLE MINIMUM CONTROL REQUIREMENTS ESTABLISHED IN SECTION 116-5.1 OF THIS CHAPTER.
- (A) DISCONNECTION OF ROOFTOP RUNOFF;
  - (B) DISCONNECTION OF NON-ROOFTOP RUNOFF;
  - (C) SHEETFLOW TO CONSERVATION AREAS;
  - (D) RAINWATER HARVESTING;
  - (E) SUBMERGED GRAVEL WETLANDS;
  - (F) LANDSCAPE INFILTRATION;
  - (G) INFILTRATION BERMS;
  - (H) DRY WELLS;

- (I) MICRO-BIORETENTION;
  - (J) RAIN GARDENS;
  - (K) SWALES;
  - (L) ENHANCED FILTERS; AND
  - (M) ANY PRACTICES APPROVED BY THE ADMINISTRATION.
- (3) THE USE OF ESD PLANNING TECHNIQUES AND TREATMENT PRACTICES SPECIFIED IN THIS SECTION SHALL NOT CONFLICT WITH STATE LAW OR TOWN ORDINANCES, REGULATIONS, OR POLICIES.
- B. STRUCTURAL STORMWATER MANAGEMENT MEASURES.
- (1) THE FOLLOWING STRUCTURAL STORMWATER MANAGEMENT PRACTICES SHALL BE DESIGNED ACCORDING TO THE DESIGN MANUAL TO SATISFY THE APPLICABLE MINIMUM CONTROL REQUIREMENTS ESTABLISHED IN SECTION 116-5.1 OF THIS CHAPTER;
- (A) STORMWATER MANAGEMENT PONDS;
  - (B) STORMWATER MANAGEMENT WETLANDS;
  - (C) STORMWATER MANAGEMENT INFILTRATION;
  - (D) STORMWATER MANAGEMENT FILTERING SYSTEMS; AND
  - (E) STORMWATER MANAGEMENT OPEN CHANNEL SYSTEMS.
- (2) THE PERFORMANCE CRITERIA SPECIFIED IN THE DESIGN MANUAL WITH REGARD TO GENERAL FEASIBILITY, CONVEYANCE, PRETREATMENT, TREATMENT AND GEOMETRY, ENVIRONMENT AND LANDSCAPING, AND MAINTENANCE SHALL BE CONSIDERED WHEN SELECTING STRUCTURAL STORMWATER MANAGEMENT PRACTICES.
- (3) STRUCTURAL STORMWATER MANAGEMENT PRACTICES SHALL BE SELECTED TO ACCOMMODATE THE UNIQUE HYDROLOGIC OR GEOLOGIC REGIONS OF THE TOWN.
- C. THE APPLICANT OR LAND OWNER MUST RECORD IN THE LAND RECORDS OF CHARLES COUNTY THE APPROVED STORMWATER MANAGEMENT

PLAN OR OTHER APPROVED DOCUMENT THAT CONTAINS THE ESD PLANNING TECHNIQUES AND TREATMENT PRACTICES AND STRUCTURAL STORMWATER MANAGEMENT MEASURES USED TO SATISFY THE MINIMUM REQUIREMENTS IN SECTION 116-5. ANY SUCH APPROVED PLAN OR DOCUMENT SHALL BE BINDING UPON AND RUN WITH THE LAND AND ALL FUTURE OWNERS OF THE LAND AND REMAIN UNALTERED EXCEPT WITH PRIOR APPROVAL FROM THE TOWN. THE APPLICANT OR LAND OWNER SHALL RECORD AMONG THE LAND RECORDS OF CHARLES COUNTY ANY APPROVED ALTERATION OF A STORMWATER MANAGEMENT PLAN OR OTHER APPROVED DOCUMENT, WHICH SHALL RUN WITH AND BIND THE LAND AND ALL FUTURE OWNERS OF THE LAND.

- D. ALTERNATIVE ESD PLANNING TECHNIQUES AND TREATMENT PRACTICES AND STRUCTURAL STORMWATER MEASURES MAY BE USED FOR NEW DEVELOPMENT RUNOFF CONTROL IF THEY MEET THE PERFORMANCE CRITERIA ESTABLISHED IN THE DESIGN MANUAL AND ALL SUBSEQUENT REVISIONS AND ARE APPROVED BY THE ADMINISTRATION. PRACTICES USED FOR REDEVELOPMENT PROJECTS SHALL BE APPROVED BY THE TOWN.
- E. FOR THE PURPOSES OF MODIFYING THE MINIMUM CONTROL REQUIREMENTS OR DESIGN CRITERIA, THE OWNER/DEVELOPER SHALL SUBMIT TO THE TOWN AN ANALYSIS OF THE IMPACTS OF STORMWATER FLOWS DOWNSTREAM IN THE WATERSHED. THE ANALYSIS SHALL INCLUDE HYDROLOGIC AND HYDRAULIC CALCULATIONS NECESSARY TO DETERMINE THE IMPACT OF HYDROGRAPH TIMING MODIFICATIONS OF THE PROPOSED DEVELOPMENT UPON A DAM, HIGHWAY, STRUCTURE, OR NATURAL POINT OF RESTRICTED STREAMFLOW. THE POINT OF INVESTIGATION IS TO BE ESTABLISHED WITH THE CONCURRENCE OF THE TOWN, DOWNSTREAM OF THE FIRST DOWNSTREAM TRIBUTARY WHOSE DRAINAGE AREA EQUALS OR EXCEEDS THE CONTRIBUTING AREA TO THE PROJECT OR STORMWATER MANAGEMENT FACILITY.

### **116-5.3 SPECIFIC DESIGN CRITERIA**

THE BASIC DESIGN CRITERIA, METHODOLOGIES, AND CONSTRUCTION SPECIFICATIONS, SUBJECT TO THE APPROVAL OF THE TOWN AND THE ADMINISTRATION, SHALL BE THOSE OF THE DESIGN MANUAL.

### **116-6 STORMWATER MANAGEMENT PLANS**

#### **116-6.1 REVIEW AND APPROVAL OF STORMWATER MANAGEMENT PLANS**

- A. FOR ANY PROPOSED DEVELOPMENT, THE APPLICANT SHALL SUBMIT PHASED STORMWATER MANAGEMENT PLANS OR WAIVER APPLICATION

TO THE TOWN FOR REVIEW AND APPROVAL, UNLESS OTHERWISE EXEMPTED. AT A MINIMUM, PLANS SHALL BE SUBMITTED FOR THE CONCEPT, SITE DEVELOPMENT, AND FINAL STORMWATER MANAGEMENT CONSTRUCTION PHASES OF PROJECT DESIGN. EACH PLAN SUBMITTAL SHALL INCLUDE THE MINIMUM CONTENT SPECIFIED IN SECTION 116-6.2 OF THIS CHAPTER AND MEET THE REQUIREMENTS OF THE DESIGN MANUAL AND SECTION 116-5 OF THIS CHAPTER. WHENEVER PRACTICAL, STORMWATER MANAGEMENT PLANS SHALL INCLUDE THE ENTIRE DRAINAGE AREA IN ORDER TO HAVE ENOUGH LAND TO INCORPORATE ESD TO THE MEP.

- B. THE TOWN SHALL PERFORM A COMPREHENSIVE REVIEW OF THE STORMWATER MANAGEMENT PLANS FOR EACH PHASE OF SITE DESIGN. COORDINATED COMMENTS WILL BE PROVIDED FOR EACH PLAN PHASE THAT REFLECT INPUT FROM ALL APPROPRIATE AGENCIES INCLUDING, BUT NOT LIMITED TO THE SOIL CONSERVATION DISTRICT (SCD) AND THE DEPARTMENTS OF PLANNING, ZONING AND PUBLIC WORKS OF THE TOWN. ALL COMMENTS FROM THE TOWN AND OTHER APPROPRIATE AGENCIES SHALL BE ADDRESSED AND APPROVAL RECEIVED AT EACH PHASE OF PROJECT DESIGN BEFORE SUBSEQUENT SUBMISSIONS.

**116-6.2 CONTENTS AND SUBMISSION OF STORMWATER MANAGEMENT PLANS**

- A. CONCEPT PLAN - THE APPLICANT SHALL SUBMIT A CONCEPT PLAN THAT PROVIDES SUFFICIENT INFORMATION FOR AN INITIAL ASSESSMENT OF THE PROPOSED PROJECT AND WHETHER STORMWATER MANAGEMENT CAN BE PROVIDED ACCORDING TO SECTION 116-5.2 OF THIS CHAPTER AND THE DESIGN MANUAL. PLANS SUBMITTED FOR CONCEPT APPROVAL SHALL INCLUDE, BUT ARE NOT LIMITED TO:
- (1) A MAP AT A SCALE SPECIFIED BY THE Town SHOWING SITE LOCATION, EXISTING NATURAL FEATURES, WATER AND OTHER SENSITIVE RESOURCES, TOPOGRAPHY, AND NATURAL DRAINAGE PATTERNS;
  - (2) THE ANTICIPATED LOCATION OF ALL PROPOSED IMPERVIOUS AREAS, BUILDINGS, ROADWAYS, PARKING, SIDEWALKS, UTILITIES, AND OTHER SITE IMPROVEMENTS;
  - (3) THE LOCATION OF THE PROPOSED LIMIT OF DISTURBANCE, ERODIBLE SOILS, STEEP SLOPES, AND AREAS TO BE PROTECTED DURING CONSTRUCTION;
  - (4) PRELIMINARY ESTIMATES OF STORMWATER MANAGEMENT REQUIREMENTS, THE SELECTION AND LOCATION OF ESD

PRACTICES TO BE USED, AND THE LOCATION OF ALL POINTS OF DISCHARGE FROM THE SITE;

- (5) A NARRATIVE THAT SUPPORTS THE CONCEPT DESIGN AND DESCRIBES HOW ESD WILL BE IMPLEMENTED TO THE MEP; AND
- (6) ANY OTHER INFORMATION REQUIRED BY THE APPROVING AGENCY.

B. SITE DEVELOPMENT PLAN - FOLLOWING CONCEPT PLAN APPROVAL BY THE Town THE APPLICANT SHALL SUBMIT SITE DEVELOPMENT PLANS THAT REFLECT COMMENTS RECEIVED DURING THE PREVIOUS REVIEW PHASE. PLANS SUBMITTED FOR SITE DEVELOPMENT APPROVAL SHALL BE OF SUFFICIENT DETAIL TO ALLOW SITE DEVELOPMENT TO BE REVIEWED AND INCLUDE BUT NOT BE LIMITED TO:

- (1) ALL INFORMATION PROVIDED DURING THE CONCEPT PLAN REVIEW PHASE;
- (2) FINAL SITE LAYOUT, EXACT IMPERVIOUS AREA LOCATIONS AND ACREAGES, PROPOSED TOPOGRAPHY, DELINEATED DRAINAGE AREAS AT ALL POINTS OF DISCHARGE FROM THE SITE, AND STORMWATER VOLUME COMPUTATIONS FOR ESD PRACTICES AND QUANTITY CONTROL STRUCTURES;
- (3) A PROPOSED EROSION AND SEDIMENT CONTROL PLAN THAT CONTAINS THE CONSTRUCTION SEQUENCE, ANY PHASING NECESSARY TO LIMIT EARTH DISTURBANCES AND IMPACTS TO NATURAL RESOURCES AND AN OVERLAY PLAN SHOWING THE TYPES AND LOCATIONS OF ESD AND EROSION AND SEDIMENT CONTROL PRACTICES TO BE USED;
- (4) A NARRATIVE THAT SUPPORTS THE SITE DEVELOPMENT DESIGN, DESCRIBES HOW ESD WILL BE USED TO MEET THE MINIMUM CONTROL REQUIREMENTS, AND JUSTIFIES ANY PROPOSED STRUCTURAL STORMWATER MANAGEMENT MEASURE; AND
- (5) ANY OTHER INFORMATION REQUIRED BY THE APPROVING AGENCY.

C. FINAL SITE DEVELOPMENT PLAN - FOLLOWING SITE DEVELOPMENT APPROVAL BY THE TOWN, THE APPLICANT SHALL SUBMIT FINAL EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT PLANS THAT REFLECT THE COMMENTS RECEIVED DURING THE PREVIOUS REVIEW PHASE. PLANS SUBMITTED FOR FINAL APPROVAL

SHALL BE OF SUFFICIENT DETAIL TO ALLOW ALL APPROVALS AND PERMITS TO BE ISSUED ACCORDING TO THE FOLLOWING:

- (1) FINAL EROSION AND SEDIMENT CONTROL PLANS SHALL BE SUBMITTED ACCORDING TO COMAR 26.17.01.05; AND
- (2) FINAL STORMWATER MANAGEMENT PLANS SHALL BE SUBMITTED FOR APPROVAL IN THE FORM OF CONSTRUCTION DRAWINGS AND BE ACCOMPANIED BY REPORTS THAT INCLUDE SUFFICIENT INFORMATION TO EVALUATE THE EFFECTIVENESS OF THE PROPOSED RUNOFF CONTROL DESIGN.
- (3) ALL ESD FEATURES OR BMPs INCLUDED ON A FINAL STORMWATER PLAN MUST BE READILY AVAILABLE FOR INSPECTION AND ACCESSIBLE FOR MAINTENANCE.

D. REPORTS SUBMITTED FOR FINAL STORMWATER MANAGEMENT PLAN APPROVAL SHALL INCLUDE, BUT ARE NOT LIMITED TO:

- (1) GEOTECHNICAL INVESTIGATIONS INCLUDING SOIL MAPS, BORINGS, SITE SPECIFIC RECOMMENDATIONS, AND ANY ADDITIONAL INFORMATION NECESSARY FOR THE FINAL STORMWATER MANAGEMENT DESIGN;
- (2) DRAINAGE AREA MAPS DEPICTING PREDEVELOPMENT AND POST DEVELOPMENT RUNOFF FLOW PATH SEGMENTATION AND LAND USE;
- (3) HYDROLOGIC COMPUTATIONS OF THE APPLICABLE ESD AND UNIFIED SIZING CRITERIA ACCORDING TO THE DESIGN MANUAL FOR ALL POINTS OF DISCHARGE FROM THE SITE;
- (4) HYDRAULIC AND STRUCTURAL COMPUTATIONS FOR ALL ESD PRACTICES AND STRUCTURAL STORMWATER MANAGEMENT MEASURES TO BE USED;
- (5) A NARRATIVE THAT SUPPORTS THE FINAL STORMWATER MANAGEMENT DESIGN; AND
- (6) ANY OTHER INFORMATION REQUIRED BY THE TOWN.

E. CONSTRUCTION DRAWINGS SUBMITTED FOR FINAL STORMWATER MANAGEMENT PLAN APPROVAL SHALL INCLUDE, BUT ARE NOT LIMITED TO:

- (1) A VICINITY MAP;



- (2) EXISTING AND PROPOSED TOPOGRAPHY AND PROPOSED DRAINAGE AREAS, INCLUDING AREAS NECESSARY TO DETERMINE DOWNSTREAM ANALYSIS FOR PROPOSED STORMWATER MANAGEMENT FACILITIES;
- (3) ANY PROPOSED IMPROVEMENTS INCLUDING LOCATION OF BUILDINGS OR OTHER STRUCTURES, IMPERVIOUS SURFACES, STORM DRAINAGE FACILITIES, AND ALL GRADING;
- (4) THE LOCATION OF EXISTING AND PROPOSED STRUCTURES AND UTILITIES;
- (5) ANY EASEMENTS AND RIGHTS-OF-WAY;
- (6) THE DELINEATION, IF APPLICABLE, OF THE 100-YEAR FLOODPLAIN AND ANY ON-SITE WETLANDS;
- (7) STRUCTURAL AND CONSTRUCTION DETAILS INCLUDING REPRESENTATIVE CROSS SECTIONS FOR ALL COMPONENTS OF THE PROPOSED DRAINAGE SYSTEM OR SYSTEMS, AND STORMWATER MANAGEMENT FACILITIES;
- (8) ALL NECESSARY CONSTRUCTION SPECIFICATIONS;
- (9) A SEQUENCE OF CONSTRUCTION;
- (10) DATA FOR TOTAL SITE AREA, DISTURBED AREA, NEW IMPERVIOUS AREA, AND TOTAL IMPERVIOUS AREA;
- (11) A TABLE SHOWING THE ESD AND UNIFIED SIZING CRITERIA VOLUMES REQUIRED IN THE DESIGN MANUAL;
- (12) A TABLE OF MATERIALS TO BE USED FOR STORMWATER MANAGEMENT FACILITY PLANNING;
- (13) ALL SOIL BORINGS LOGS AND LOCATIONS;
- (14) AN INSPECTION AND MAINTENANCE SCHEDULE;
- (15) CERTIFICATION BY THE OWNER/DEVELOPER THAT ALL STORMWATER MANAGEMENT CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN;
- (16) AN AS-BUILT CERTIFICATION SIGNATURE BLOCK TO BE EXECUTED AFTER PROJECT COMPLETION; AND

(17) ANY OTHER INFORMATION REQUIRED BY THE TOWN.

- F. IF A STORMWATER MANAGEMENT PLAN INVOLVES DIRECTION OF SOME OR ALL RUNOFF OFF OF THE SITE, IT IS THE RESPONSIBILITY OF THE DEVELOPER TO OBTAIN FROM ADJACENT PROPERTY OWNERS ANY EASEMENTS OR OTHER NECESSARY PROPERTY INTERESTS CONCERNING FLOWAGE OF WATER. APPROVAL OF A STORMWATER MANAGEMENT PLAN DOES NOT CREATE OR AFFECT ANY RIGHT TO DIRECT RUNOFF ONTO ADJACENT PROPERTY WITHOUT THAT PROPERTY OWNER'S PERMISSION.

### **116-6.3 PREPARATION OF STORMWATER MANAGEMENT PLANS**

- A. THE DESIGN OF STORMWATER MANAGEMENT PLANS SHALL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND WHOSE QUALIFICATIONS ARE ACCEPTABLE TO THE TOWN.
- B. IF A STORMWATER BMP REQUIRES EITHER A DAM SAFETY PERMIT FROM MDE OR SMALL POND APPROVAL FROM THE CHARLES SOIL CONSERVATION DISTRICT THE DESIGN SHALL BE PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND.

### **116-7 PERMITS**

#### **116-7.1 PERMIT REQUIREMENT**

UNLESS PROPOSED DEVELOPMENT IS EXEMPT FROM THE PROVISIONS OF THIS CHAPTER AS SET FORTH IN SECTION 116-4.2A, A GRADING OR BUILDING PERMIT MAY NOT BE ISSUED FOR ANY PARCEL OR LOT UNLESS FINAL EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT PLANS HAVE BEEN APPROVED BY THE TOWN AS MEETING ALL THE REQUIREMENTS OF THE DESIGN MANUAL AND THIS CHAPTER. WHERE APPROPRIATE, A BUILDING PERMIT MAY NOT BE ISSUED WITHOUT:

- A. RECORDED EASEMENTS FOR THE STORMWATER MANAGEMENT FACILITY AND EASEMENTS TO PROVIDE ADEQUATE ACCESS FROM A PUBLIC RIGHT-OF-WAY FOR INSPECTION AND MAINTENANCE;
- B. A RECORDED STORMWATER MANAGEMENT MAINTENANCE AGREEMENT AS DESCRIBED IN SECTION 116-10.2 OF THIS CHAPTER; AND
- C. A PERFORMANCE BOND AS DESCRIBED IN SECTION 116-8 OF THIS CHAPTER, AND

D. PERMISSION FROM ADJACENT PROPERTY OWNERS AS NECESSARY.

**116-7.2 PERMIT FEE**

NON-REFUNDABLE PERMIT FEES WILL BE COLLECTED AT EACH PHASE OF STORMWATER MANAGEMENT PLAN SUBMITTAL. PERMIT FEES WILL PROVIDE FOR THE COST OF PLAN REVIEW, ADMINISTRATION, AND MANAGEMENT OF THE PERMITTING PROCESS, AND INSPECTION OF ALL PROJECTS SUBJECT TO THIS CHAPTER. A PERMIT FEE SCHEDULE SHALL BE ESTABLISHED BY THE Town BASED UPON THE RELATIVE COMPLEXITY OF THE PROJECT AND MAY BE AMENDED FROM TIME TO TIME.

**116-7.3 PERMIT SUSPENSION AND REVOCATION**

ANY GRADING OR BUILDING PERMIT ISSUED BY THE TOWN MAY BE SUSPENDED OR REVOKED AFTER WRITTEN NOTICE IS GIVEN TO THE PERMITTEE FOR ANY OF THE FOLLOWING REASONS:

- A. ANY VIOLATION(S) OF THE CONDITIONS OF THE STORMWATER MANAGEMENT PLAN APPROVAL;
- B. CHANGES IN SITE RUNOFF CHARACTERISTICS UPON WHICH AN APPROVAL OR WAIVER WAS GRANTED;
- C. CONSTRUCTION IS NOT IN ACCORDANCE WITH THE APPROVED PLAN;
- D. NONCOMPLIANCE WITH CORRECTION NOTICE(S) OR STOP WORK ORDER(S) ISSUED FOR THE CONSTRUCTION OF ANY STORMWATER MANAGEMENT PRACTICE, AND;
- E. AN IMMEDIATE DANGER EXISTS IN A DOWNSTREAM AREA IN THE OPINION OF THE TOWN.

**116-7.4 PERMIT CONDITIONS**

IN GRANTING AN APPROVAL FOR ANY PHASE OF SITE DEVELOPMENT, THE TOWN MAY IMPOSE SUCH CONDITIONS THAT MAY BE DEEMED NECESSARY TO ENSURE COMPLIANCE WITH THE PROVISIONS OF THIS CHAPTER AND THE PRESERVATION OF PUBLIC HEALTH AND SAFETY.

**116-8 PERFORMANCE BOND**

THE TOWN SHALL REQUIRE FROM THE DEVELOPER A SURETY OR CASH BOND, IRREVOCABLE LETTER OF CREDIT, OR OTHER MEANS OF SECURITY ACCEPTABLE TO THE TOWN PRIOR TO THE ISSUANCE OF ANY BUILDING AND/OR GRADING PERMIT FOR THE CONSTRUCTION OF A DEVELOPMENT

REQUIRING STORMWATER MANAGEMENT. THE AMOUNT OF THE SECURITY SHALL NOT BE LESS THAN THE TOTAL ESTIMATED CONSTRUCTION COST OF ALL STORMWATER MANAGEMENT FACILITIES. THE BOND REQUIRED IN THIS SECTION SHALL INCLUDE PROVISIONS RELATIVE TO FORFEITURE FOR FAILURE TO COMPLETE WORK SPECIFIED IN THE APPROVED STORMWATER MANAGEMENT PLAN, COMPLIANCE WITH ALL OF THE PROVISIONS OF THIS CHAPTER, AND OTHER APPLICABLE LAWS AND REGULATIONS, AND ANY TIME LIMITATIONS. THE BOND SHALL NOT BE FULLY RELEASED WITHOUT A FINAL INSPECTION OF THE COMPLETED WORK BY THE TOWN, SUBMISSION OF "AS-BUILT" PLANS, AND CERTIFICATION OF COMPLETION BY THE TOWN THAT ALL STORMWATER MANAGEMENT FACILITIES COMPLY WITH THE APPROVED PLAN AND THE PROVISIONS OF THIS CHAPTER. A PROCEDURE MAY BE USED TO RELEASE PARTS OF THE BOND HELD BY THE TOWN AFTER VARIOUS STAGES OF CONSTRUCTION HAVE BEEN COMPLETED AND ACCEPTED BY THE TOWN. THE PROCEDURES USED FOR PARTIALLY RELEASING PERFORMANCE BONDS MUST BE SPECIFIED BY THE TOWN IN WRITING PRIOR TO STORMWATER MANAGEMENT PLAN APPROVAL.

## **116-9 INSPECTION**

### **116-9.1 INSPECTION SCHEDULE AND REPORTS**

- A. THE DEVELOPER SHALL NOTIFY THE TOWN AT LEAST 48 HOURS BEFORE COMMENCING ANY WORK IN CONJUNCTION WITH SITE DEVELOPMENT, THE STORMWATER MANAGEMENT PLAN, AND UPON COMPLETION OF THE PROJECT.
- B. REGULAR INSPECTIONS SHALL BE MADE AND DOCUMENTED FOR EACH ESD PLANNING TECHNIQUE AND PRACTICE AT THE STAGES OF CONSTRUCTION SPECIFIED IN THE DESIGN MANUAL BY THE TOWN, ITS AUTHORIZED REPRESENTATIVE, OR CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND. AT A MINIMUM, ALL ESD AND OTHER NONSTRUCTURAL PRACTICES SHALL BE INSPECTED UPON COMPLETION OF FINAL GRADING, THE ESTABLISHMENT OF PERMANENT STABILIZATION, AND BEFORE ISSUANCE OF USE AND OCCUPANCY APPROVAL.
- C. WRITTEN INSPECTION REPORTS SHALL INCLUDE:
  - (1) THE DATE AND LOCATION OF THE INSPECTION;
  - (2) WHETHER CONSTRUCTION WAS IN COMPLIANCE WITH THE APPROVED STORMWATER MANAGEMENT PLAN;
  - (3) ANY VARIATION FROM THE APPROVED CONSTRUCTION SPECIFICATIONS; AND

- (4) ANY VIOLATIONS THAT EXIST.
- D. THE LAND OWNER, DEVELOPER AND ON-SITE PERSONNEL SHALL BE NOTIFIED IN WRITING WHEN VIOLATIONS ARE OBSERVED. WRITTEN NOTIFICATION SHALL DESCRIBE THE NATURE OF THE VIOLATION AND THE REQUIRED CORRECTIVE ACTION.
- E. NO WORK SHALL PROCEED ON THE NEXT PHASE OF DEVELOPMENT UNTIL THE TOWN INSPECTS AND APPROVES THE WORK PREVIOUSLY COMPLETED AND FURNISHES THE LAND OWNER AND DEVELOPER WITH THE RESULTS OF THE INSPECTION REPORTS AS SOON AS POSSIBLE AFTER COMPLETION OF EACH REQUIRED INSPECTION.

**116-9.2 INSPECTION REQUIREMENTS DURING CONSTRUCTION**

- A. AT A MINIMUM, REGULAR INSPECTIONS SHALL BE MADE AND DOCUMENTED AT THE FOLLOWING SPECIFIED STAGES OF CONSTRUCTION:
  - (1) FOR PONDS:
    - (A) UPON COMPLETION OF EXCAVATION TO SUB-FOUNDATION AND WHEN REQUIRED, INSTALLATION OF STRUCTURAL SUPPORTS OR REINFORCEMENT FOR STRUCTURES, INCLUDING BUT NOT LIMITED TO:
      - (I) CORE TRENCHES FOR STRUCTURAL EMBANKMENTS;
      - (II) INLET AND OUTLET STRUCTURES, ANTI-SEEP COLLARS OR DIAPHRAGMS, AND WATERTIGHT CONNECTORS ON PIPES; AND
      - (III) TRENCHES FOR ENCLOSED STORM DRAINAGE FACILITIES;
    - (B) DURING PLACEMENT OF STRUCTURAL FILL, CONCRETE, AND INSTALLATION OF PIPING AND CATCH BASINS;
    - (C) DURING BACKFILL OF FOUNDATIONS AND TRENCHES;
    - (D) DURING EMBANKMENT CONSTRUCTION; AND
    - (E) UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

- (2) WETLANDS – AT THE STAGES SPECIFIED FOR POND CONSTRUCTION IN SECTION 116-9.2 A (1) OF THIS CHAPTER, DURING AND AFTER WETLAND RESERVOIR AREA PLANTING, AND DURING THE SECOND GROWING SEASON TO VERIFY A VEGETATION SURVIVAL RATE OF AT LEAST 50 PERCENT.
- (3) FOR INFILTRATION TRENCHES:
  - (A) DURING EXCAVATION TO SUBGRADE;
  - (B) DURING PLACEMENT AND BACKFILL OF UNDER DRAIN SYSTEMS AND OBSERVATION WELLS;
  - (C) DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA;
  - (D) DURING CONSTRUCTION OF APPURTENANT CONVEYANCE SYSTEMS SUCH AS DIVERSIONS STRUCTURES, PRE-FILTERS AND FILTERS, INLETS, OUTLETS, AND FLOW DISTRIBUTION STRUCTURES; AND
  - (E) UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
- (4) FOR INFILTRATION BASINS – AT THE STAGES SPECIFIED FOR POND CONSTRUCTION IN SECTION 116-9.2 A. (1) AND DURING REPLACEMENT AND BACKFILL OF UNDER DRAIN SYSTEMS.
- (5) FOR FILTERING SYSTEMS:
  - (A) DURING EXCAVATION TO SUBGRADE;
  - (B) DURING PLACEMENT AND BACKFILL OF UNDER DRAIN SYSTEMS;
  - (C) DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA;
  - (D) DURING CONSTRUCTION OF APPURTENANT CONVEYANCE SYSTEMS SUCH AS FLOW DIVERSION STRUCTURES, PRE-FILTERS AND FILTERS, INLETS, OUTLETS, ORIFICES, AND FLOW DISTRIBUTION STRUCTURES; AND
  - (E) UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

- (6) FOR OPEN CHANNEL SYSTEMS:
  - (A) DURING EXCAVATION TO SUBGRADE;
  - (B) DURING PLACEMENT AND BACKFILL OF UNDER DRAIN SYSTEMS FOR DRY SWALES;
  - (C) DURING INSTALLATION OF DIAPHRAGMS, CHECK DAMS, OR WEIRS; AND
  - (D) UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
  
- B. THE TOWN MAY, FOR ENFORCEMENT PURPOSES, USE ANY ONE OR A COMBINATION OF THE FOLLOWING ACTIONS:
  - (1) A NOTICE OF VIOLATION SHALL BE ISSUED SPECIFYING THE NEED FOR CORRECTIVE ACTION IF STORMWATER MANAGEMENT PLAN NONCOMPLIANCE IS IDENTIFIED;
  - (2) A STOP WORK ORDER SHALL BE ISSUED FOR THE SITE BY THE TOWN IF A VIOLATION PERSISTS;
  - (3) BONDS OR SECURITIES SHALL BE WITHHELD OR THE CASE MAY BE REFERRED FOR LEGAL ACTION IF REASONABLE EFFORTS TO CORRECT THE VIOLATION HAVE NOT BEEN UNDERTAKEN; OR
  - (4) IN ADDITION TO ANY OTHER SANCTIONS, A CIVIL ACTION OR CRIMINAL PROSECUTION MAY BE BROUGHT AGAINST ANY PERSON IN VIOLATION OF THIS CHAPTER OR THE DESIGN MANUAL.
  
- C. ANY STEP IN THE ENFORCEMENT PROCESS MAY BE TAKEN AT ANY TIME, DEPENDING ON THE SEVERITY OF THE VIOLATION.
  
- D. ONCE CONSTRUCTION IS COMPLETE, "AS-BUILT" PLAN CERTIFICATION SHALL BE SUBMITTED BY EITHER A PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MARYLAND TO ENSURE THAT ESD PLANNING TECHNIQUES, TREATMENT PRACTICES, AND STRUCTURAL STORMWATER MANAGEMENT MEASURES AND CONVEYANCE SYSTEMS COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE APPROVED PLANS. AT A MINIMUM, "AS-BUILT" CERTIFICATION SHALL INCLUDE A SET OF DRAWINGS COMPARING THE APPROVED STORMWATER MANAGEMENT PLAN WITH WHAT WAS CONSTRUCTED. THE TOWN MAY REQUIRE ADDITIONAL INFORMATION.

- E. THE TOWN SHALL SUBMIT A NOTICE OF CONSTRUCTION COMPLETION TO THE ADMINISTRATION ON A FORM SUPPLIED BY THE ADMINISTRATION FOR EACH STRUCTURAL STORMWATER MANAGEMENT PRACTICE WITHIN 45 DAYS OF CONSTRUCTION COMPLETION. IF BMPS REQUIRING SCD APPROVAL ARE CONSTRUCTED, NOTICE OF CONSTRUCTION COMPLETION SHALL ALSO BE SUBMITTED TO THE APPROPRIATE SCD.

## **116-10 MAINTENANCE**

### **116-10.1 MAINTENANCE INSPECTION**

- A. THE TOWN SHALL ENSURE THAT PREVENTATIVE MAINTENANCE IS PERFORMED BY INSPECTING ALL ESD TREATMENT PRACTICES AND STRUCTURAL STORMWATER MANAGEMENT MEASURES. INSPECTION SHALL OCCUR DURING THE FIRST YEAR OF OPERATION AND AT LEAST ONCE EVERY 3 YEARS THEREAFTER. IN ADDITION, A MAINTENANCE AGREEMENT BETWEEN THE OWNER AND THE TOWN SHALL BE EXECUTED FOR PRIVATELY-OWNED ESD TREATMENT PRACTICES AND STRUCTURAL STORMWATER MANAGEMENT MEASURES AS DESCRIBED IN SECTION 116-10.2 OF THIS CHAPTER.
- B. THE MOST RECENT INSPECTION REPORT SHALL BE MAINTAINED BY THE TOWN FOR ALL ESD TREATMENT PRACTICES AND STRUCTURAL STORMWATER MANAGEMENT MEASURES.
- C. INSPECTION REPORTS FOR ESD TREATMENT PRACTICES AND STRUCTURAL STORMWATER MANAGEMENT MEASURES SHALL INCLUDE THE FOLLOWING:
  - (1) THE DATE OF INSPECTION;
  - (2) NAME OF INSPECTOR;
  - (3) AN ASSESSMENT OF THE QUALITY OF STORMWATER MANAGEMENT SYSTEM RELATED TO ESD TREATMENT PRACTICE EFFICIENCY AND THE CONTROL OF RUNOFF TO THE MEP;
  - (4) THE CONDITION OF:
    - (A) VEGETATION OR FILTER MEDIA;
    - (B) FENCES OR OTHER SAFETY DEVICES;
    - (C) SPILLWAYS, VALVES, OR OTHER CONTROL STRUCTURES;



- (D) EMBANKMENTS, SLOPES, AND SAFETY BENCHES;
- (E) RESERVOIR OR TREATMENT AREAS;
- (F) INLET AND OUTLET CHANNELS OR STRUCTURES;
- (G) UNDERGROUND DRAINAGE;
- (H) SEDIMENT AND DEBRIS ACCUMULATION IN STORAGE AND FOREBAY AREAS;
- (I) ANY NONSTRUCTURAL PRACTICES TO THE EXTENT PRACTICABLE; AND
- (J) ANY OTHER ITEM THAT COULD AFFECT THE PROPER FUNCTION OF THE STORMWATER MANAGEMENT SYSTEM.

(5) DESCRIPTION OF NEEDED MAINTENANCE.

- D. UPON NOTIFYING AN OWNER OF THE INSPECTION RESULTS, THE OWNER SHALL HAVE 30 DAYS, OR OTHER TIME FRAME MUTUALLY AGREED TO BETWEEN THE TOWN AND THE OWNER, TO CORRECT THE DEFICIENCIES DISCOVERED. THE TOWN SHALL CONDUCT A SUBSEQUENT INSPECTION TO ENSURE COMPLETION OF THE REPAIRS.
- E. IF REPAIRS ARE NOT PROPERLY UNDERTAKEN AND COMPLETED, ENFORCEMENT PROCEDURES FOLLOWING SECTION 116-10.2 C. OF THIS CHAPTER SHALL BE FOLLOWED BY THE TOWN.
- F. IF, AFTER AN INSPECTION BY THE TOWN, THE CONDITION OF A STORMWATER MANAGEMENT FACILITY IS DETERMINED TO PRESENT AN IMMEDIATE DANGER TO PUBLIC HEALTH OR SAFETY BECAUSE OF AN UNSAFE CONDITION, IMPROPER CONSTRUCTION, OR POOR MAINTENANCE, THE TOWN SHALL TAKE SUCH ACTION AS MAY BE NECESSARY TO PROTECT THE PUBLIC AND MAKE THE FACILITY SAFE. ANY COST INCURRED BY THE TOWN SHALL BE ASSESSED AGAINST THE OWNER(S), AS PROVIDED IN SECTION 116-10.2 C. OF THIS CHAPTER.

**116-10.2 MAINTENANCE AGREEMENT**

- A. PRIOR TO THE ISSUANCE OF ANY BUILDING PERMIT FOR WHICH STORMWATER MANAGEMENT IS REQUIRED, THE TOWN SHALL REQUIRE THE APPLICANT OR OWNER TO EXECUTE AN INSPECTION AND MAINTENANCE AGREEMENT BINDING ON ALL SUBSEQUENT OWNERS OF LAND SERVED BY A PRIVATE STORMWATER MANAGEMENT FACILITY.

SUCH AGREEMENT SHALL PROVIDE FOR ACCESS TO THE FACILITY AT REASONABLE TIMES FOR REGULAR INSPECTIONS BY THE TOWN OR ITS AUTHORIZED REPRESENTATIVE TO ENSURE THAT THE FACILITY IS MAINTAINED IN PROPER WORKING CONDITION TO MEET DESIGN STANDARDS.

- B. THE AGREEMENT SHALL BE RECORDED BY THE APPLICANT OR OWNER IN THE LAND RECORDS OF CHARLES COUNTY, MARYLAND.
- C. THE AGREEMENT SHALL ALSO PROVIDE THAT, IF AFTER NOTICE BY THE TOWN TO CORRECT A VIOLATION REQUIRING MAINTENANCE WORK, SATISFACTORY CORRECTIONS ARE NOT MADE BY THE OWNER(S) WITHIN A REASONABLE PERIOD OF TIME (30 DAYS MAXIMUM), THE TOWN MAY PERFORM ALL NECESSARY WORK TO PLACE THE FACILITY IN PROPER WORKING CONDITION. THE OWNER(S) OF THE FACILITY SHALL BE ASSESSED THE COST OF THE WORK AND ANY PENALTIES. THIS MAY BE ACCOMPLISHED BY PLACING A LIEN ON THE PROPERTY, WHICH MAY BE PLACED ON THE TAX BILL AND COLLECTED AS ORDINARY TAXES BY THE TOWN.

### **116-10.3 MAINTENANCE RESPONSIBILITY**

- A. THE OWNER OF THE LAND ON WHICH WORK HAS BEEN DONE PURSUANT TO THIS CHAPTER FOR PRIVATE STORMWATER MANAGEMENT FACILITIES, OR ANY OTHER PERSON OR AGENT IN CONTROL OF SUCH LAND, SHALL MAINTAIN IN GOOD CONDITION AND PROMPTLY REPAIR AND RESTORE ALL GRADE SURFACES, WALLS, DRAINS, DAMS AND STRUCTURES, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE DEVICES. SUCH REPAIRS OR RESTORATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH APPROVED PLANS. SUCH REPAIRS OR RESTORATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH PREVIOUSLY APPROVED OR NEWLY SUBMITTED PLANS.
- B. A MAINTENANCE SCHEDULE SHALL BE DEVELOPED FOR THE LIFE OF ANY STRUCTURAL STORMWATER MANAGEMENT FACILITY OR SYSTEM OF ESD PRACTICES AND SHALL STATE THE MAINTENANCE TO BE COMPLETED, THE TIME PERIOD FOR COMPLETION, AND THE RESPONSIBLE PARTY WHAT WILL PERFORM THE MAINTENANCE. THIS MAINTENANCE SCHEDULE SHALL BE PRINTED ON THE APPROVED STORMWATER MANAGEMENT PLAN.

### **116-11 APPEALS**

ANY PERSON AGGRIEVED BY THE ACTION OF ANY OFFICIAL CHARGED WITH THE ENFORCEMENT OF THIS CHAPTER, AS THE RESULT OF THE DISAPPROVAL

OF A PROPERLY FILED APPLICATION FOR A PERMIT, ISSUANCE OF A WRITTEN NOTICE OF VIOLATION, OR AN ALLEGED FAILURE TO PROPERLY ENFORCE THE CHAPTER IN REGARD TO A SPECIFIC APPLICATION, SHALL HAVE THE RIGHT TO APPEAL THE ACTION TO THE MAYOR AND COUNCIL OF INDIAN HEAD. THE APPEAL SHALL BE FILED IN WRITING WITHIN 10 CALENDAR DAYS OF THE DATE OF OFFICIAL TRANSMITTAL OF THE FINAL DECISION OR DETERMINATION TO THE APPLICANT AND SHALL STATE CLEARLY THE GROUNDS ON WHICH THE APPEAL IS BASED. THE APPEAL SHALL BE PROCESSED IN A REASONABLE MANNER PRESCRIBED BY THE MAYOR AND COUNCIL FOR HEARING SUCH APPEALS.

#### **116-12 SEVERABILITY**

IF ANY PORTION OF THIS CHAPTER IS HELD INVALID OR UNCONSTITUTIONAL BY A COURT OF COMPETENT JURISDICTION, SUCH PORTION SHALL NOT AFFECT THE VALIDITY OF THE REMAINING PORTIONS OF THIS CHAPTER. IT IS THE INTENT OF THE TOWN THAT THIS CHAPTER SHALL STAND, EVEN IF A SECTION, SUBSECTION, SENTENCE, CLAUSE, PHRASE, OR PORTION MAY BE FOUND INVALID.

#### **116-13 PENALTIES**

ANY PERSON CONVICTED OF VIOLATING THE PROVISIONS OF THIS CHAPTER SHALL BE GUILTY OF A MISDEMEANOR, AND UPON CONVICTION THEREOF, SHALL BE SUBJECT TO A FINE OF NOT MORE THAN FIVE THOUSAND DOLLARS (\$5,000.00) OR IMPRISONMENT NOT EXCEEDING 1 YEAR OR BOTH FOR EACH VIOLATION WITH COSTS IMPOSED IN THE DISCRETION OF THE COURT AND NOT TO EXCEED FIFTY THOUSAND DOLLARS (\$50,000.00). EACH DAY THAT A VIOLATION CONTINUES SHALL BE A SEPARATE OFFENSE. IN ADDITION, THE TOWN MAY INSTITUTE INJUNCTIVE, MANDAMUS OR OTHER APPROPRIATE ACTION OF PROCEEDINGS OF LAW TO CORRECT VIOLATIONS OF THIS CHAPTER. ANY COURT OF COMPETENT JURISDICTION SHALL HAVE THE RIGHT TO ISSUE TEMPORARY OR PERMANENT RESTRAINING ORDERS, INJUNCTIONS OR MANDAMUS, OR OTHER APPROPRIATE FORMS OF RELIEF.

#### **116.14 TRANSITION PROVISIONS**

A. THIS CHAPTER APPLIES TO ALL NEW DEVELOPMENT AND REDEVELOPMENT PROJECTS THAT DO NOT HAVE FINAL APPROVAL FOR EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT PLANS BY ALL REQUIRED REGULATORY AUTHORITIES BY MAY 4, 2010.

B. THE REQUIREMENTS ESTABLISHED IN THIS CHAPTER SHALL NOT APPLY TO ANY CONSTRUCTION PROPOSED PURSUANT TO A VALID PERMIT WITH AN APPROVED EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT PLAN ISSUED PRIOR TO MAY 4, 2010.

C. ANY PORTION OF AN APPROVED DEVELOPMENT THAT DOES NOT HAVE AN APPROVED EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT PLAN ON RECORD PRIOR TO MAY 4, 2010 MUST COMPLY WITH ALL PROVISIONS OF THIS CHAPTER.

D. THE TOWN MAY GRANT A STORMWATER GRANDFATHER WAIVER TO A DEVELOPMENT PROJECT THAT RECEIVED A PRELIMINARY PROJECT APPROVAL PRIOR TO MAY 4, 2010.

E. A STORMWATER GRANDFATHER WAIVER GRANTED UNDER SUBSECTION D OF THIS SECTION SHALL EXPIRE ON MAY 4, 2013 UNLESS THE DEVELOPMENT PROJECT RECEIVES A FINAL PROJECT APPROVAL PRIOR TO THAT DATE.

F. UNLESS A STORMWATER GRANDFATHER WAIVER HAS PREVIOUSLY EXPIRED UNDER SUBSECTION E OF THIS SECTION, A STORMWATER GRANDFATHER WAIVER GRANTED UNDER SUBSECTION B OF THIS SECTION SHALL EXPIRE ON MAY 4, 2017 REGARDLESS OF WHEN THE DEVELOPMENT PROJECT RECEIVED PRELIMINARY OR FINAL PROJECT APPROVAL AND THE TOWN SHALL NOT ISSUE ANY ADDITIONAL EXTENSIONS.

G. (1) THE TOWN MAY EXTEND THE DEADLINE FOR FINAL PROJECT APPROVAL UNDER SUBSECTION E AND FOR THE EXPIRATION OF THE STORMWATER GRANDFATHER WAIVER UNDER SUBSECTION F ONLY IF ON MAY 4, 2010, THE DEVELOPMENT PROJECT HAD A "PRELIMINARY PROJECT APPROVAL" AND WAS SUBJECT TO A DEVELOPER RIGHTS AND RESPONSIBILITIES AGREEMENT, A TAX INCREMENT FINANCING CONTRACT, OR AN ANNEXATION AGREEMENT.

(2) ANY EXTENSION GRANTED UNDER THIS SUBSECTION G SHALL EXPIRE WHEN THE DEVELOPER RIGHTS AND RESPONSIBILITIES AGREEMENT, THE TAX INCREMENT FINANCING CONTRACT, OR THE ANNEXATION AGREEMENT EXPIRES.

**SECTION 2. AND BE IT FURTHER ENACTED,** That if any provision of this Ordinance, or the application thereof to any person or circumstance is held invalid for any reason, such invalidity shall not affect the other provisions or any other application of this Ordinance which can be given effect without the invalid provisions or application, and to this end, all the provisions of this Ordinance are hereby declared to be severable.

**SECTION 3. AND BE IT FURTHER ENACTED,** that this Ordinance shall become effective at the expiration of twenty (20) calendar days after its approval by the Council.

**INDIAN HEAD TOWN COUNCIL**

\_\_\_\_\_  
Edward W. Rice, Mayor

\_\_\_\_\_  
Dennis J. Scheessele, Vice Mayor

\_\_\_\_\_  
Margie A. Posey, Councilwoman

ATTEST:

\_\_\_\_\_  
Clerk of Council

\_\_\_\_\_  
Date

Key:

CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.  
((Double Parenthesis)) indicate matter deleted from existing law.