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APPENDIX B

ORDINANCE NO. 11- 2006

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ORDINANCE OF THE TOWNSHIP OF LIVINGSTON ADDING A NEW ARTICLE XIX
“STORMWATER CONTROL” TO CHAPTER 170 LAND USE TO THE CODE OF THE
TOWNSHIP OF LIVINGSTON

8 **BE IT ORDAINED**, By the Township Council, of the Township of Livingston, in the County of
9 Essex, State of New Jersey, as follows:

10 The following new Article, entitled “Stormwater Control” XIX is added to Chapter 170 Land Use
11 of the Code if the Township of Livingston:

12 **Section1. Scope and Purpose**

13 A. Policy Statement

14 Flood control, groundwater recharge, and pollutant reduction through nonstructural or low
15 impact techniques shall be explored before relying on structural BMPs. Structural BMPs should
16 be integrated with nonstructural stormwater management strategies and proper maintenance
17 plans. Nonstructural strategies include both environmentally sensitive site design and source
18 controls that prevent pollutants from being placed on the site or from being exposed to
19 stormwater. Source control plans should be developed based upon physical site conditions and
20 the origin, nature, and the anticipated quantity or amount of potential pollutants. Multiple
21 stormwater management BMPs may be necessary to achieve the established performance
22 standards for water quality, quantity, and groundwater recharge.

23 B. Purpose

24 It is the purpose of this ordinance to establish minimum stormwater management requirements
25 and controls for “major development,” as defined in Section 2.

26 C. Applicability

27 1. This ordinance shall be applicable to all site plans and subdivisions for the following major
28 developments that require preliminary or final site plan or subdivision review:

- 29 • Non-residential major developments; and
30 • Aspects of residential major developments that are not pre-empted by the Residential
31 Site Improvement Standards at N.J.A.C. 5:21.

32 2. This ordinance shall also be applicable to all major developments undertaken by the
33 Township of Livingston.

34 D. Compatibility with Other Permit and Ordinance Requirements

35 Development approvals issued for subdivisions and site plans pursuant to this ordinance are to be
36 considered an integral part of development approvals under the subdivision and site plan review
37 process and do not relieve the applicant of the responsibility to secure required permits or approvals
38 for activities regulated by any other applicable code, rule, act, or ordinance. In their interpretation

1 and application, the provisions of this ordinance shall be held to be the minimum requirements for
2 the promotion of the public health, safety, and general welfare. This ordinance is not intended to
3 interfere with, abrogate, or annul any other ordinances, rule or regulation, statute, or other provision
4 of law except that, where any provision of this ordinance imposes restrictions different from those
5 imposed by any other ordinance, rule or regulation, or other provision of law, the more restrictive
6 provisions or higher standards shall control.

7 8 **Section 2. Definitions**

9 Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so
10 as to give them the meaning they have in common usage and to give this ordinance its most
11 reasonable application. The definitions below are the same as or based on the corresponding
12 definitions in the Stormwater Management Rules at N.J.A.C. 7:8-1.2.

13 “CAFRA Planning Map” means the geographic depiction of the boundaries for Coastal Planning
14 Areas, CAFRA Centers, CAFRA Cores and CAFRA Nodes pursuant to N.J.A.C. 7:7E-5B.3.

15 “CAFRA Centers, Cores or Nodes” means those areas within boundaries accepted by the
16 Department pursuant to N.J.A.C. 7:8E-5B.

17 “Compaction” means the increase in soil bulk density.

18 “Core” means a pedestrian-oriented area of commercial and civic uses serving the surrounding
19 municipality, generally including housing and access to public transportation.

20 “County review agency” means an agency designated by the County Board of Chosen
21 Freeholders to review municipal stormwater management plans and implementing
22 ordinance(s). The county review agency may either be:

23 A county planning agency; or

24 A county water resource association created under N.J.S.A 58:16A-55.5, if the ordinance or
25 resolution delegates authority to approve, conditionally approve, or disapprove municipal
26 stormwater management plans and implementing ordinances.

27 “Department” means the New Jersey Department of Environmental Protection.

28 “Designated Center” means a State Development and Redevelopment Plan Center as designated
29 by the State Planning Commission such as urban, regional, town, village, or hamlet.

30 “Design engineer” means a person professionally qualified and duly licensed in New Jersey to
31 perform engineering services that may include, but not necessarily be limited to, development
32 of project requirements, creation and development of project design and preparation of
33 drawings and specifications.

34 “Development” means the division of a parcel of land into two or more parcels, the construction,
35 reconstruction, conversion, structural alteration, relocation or enlargement of any building or
36 structure, any mining excavation or landfill, and any use or change in the use of any building
37 or other structure, or land or extension of use of land, by any person, for which permission is
38 required under the Municipal Land Use Law , N.J.S.A. 40:55D-1 et seq. In the case of
39 development of agricultural lands, development means: any activity that requires a State
40 permit; any activity reviewed by the County Agricultural Board (CAB) and the State

1 Agricultural Development Committee (SADC), and municipal review of any activity not
2 exempted by the Right to Farm Act , N.J.S.A 4:1C-1 et seq.

3 “Drainage area” means a geographic area within which stormwater, sediments, or dissolved
4 materials drain to a particular receiving waterbody or to a particular point along a receiving
5 waterbody.

6 “Environmentally critical areas” means an area or feature which is of significant environmental
7 value, including but not limited to: stream corridors; natural heritage priority sites; habitat of
8 endangered or threatened species; large areas of contiguous open space or upland forest;
9 steep slopes; and well head protection and groundwater recharge areas. Habitats of
10 endangered or threatened species are identified using the Department’s Landscape Project
11 as approved by the Department’s Endangered and Nongame Species Program.

12 “Empowerment Neighborhood” means a neighborhood designated by the Urban Coordinating
13 Council “in consultation and conjunction with” the New Jersey Redevelopment Authority
14 pursuant to N.J.S.A 55:19-69.

15 “Erosion” means the detachment and movement of soil or rock fragments by water, wind, ice or
16 gravity.

17 “Impervious surface” means a surface that has been covered with a layer of material so that it is
18 highly resistant to infiltration by water.

19 “Infiltration” is the process by which water seeps into the soil from precipitation.

20 “Major development” means any “development” that provides for ultimately disturbing one or
21 more acres of land. Disturbance for the purpose of this rule is the placement of impervious
22 surface or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of
23 vegetation.

24 “Municipality” means any city, borough, town, township, or village.

25 “Node” means an area designated by the State Planning Commission concentrating facilities and
26 activities which are not organized in a compact form.

27 “Nutrient” means a chemical element or compound, such as nitrogen or phosphorus, which is
28 essential to and promotes the development of organisms.

29 “Person” means any individual, corporation, company, partnership, firm, association, the
30 Township of Livingston or political subdivision of this State subject to municipal jurisdiction
31 pursuant to the Municipal Land Use Law , N.J.S.A. 40:55D-1 et seq.

32 “Pollutant” means any dredged spoil, solid waste, incinerator residue, filter backwash, sewage,
33 garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological
34 materials, medical wastes, radioactive substance (except those regulated under the Atomic
35 Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.), thermal waste, wrecked or
36 discarded equipment, rock, sand, cellar dirt, industrial, municipal, agricultural, and
37 construction waste or runoff, or other residue discharged directly or indirectly to the land,
38 ground waters or surface waters of the State, or to a domestic treatment works. “Pollutant”
39 includes both hazardous and nonhazardous pollutants.

40 “Recharge” means the amount of water from precipitation that infiltrates into the ground and is not
41 evapotranspired.

1 "Sediment" means solid material, mineral or organic, that is in suspension, is being transported,
2 or has been moved from its site of origin by air, water or gravity as a product of erosion.

3 "Site" means the lot or lots upon which a major development is to occur or has occurred.

4 "Soil" means all unconsolidated mineral and organic material of any origin.

5 "State Development and Redevelopment Plan Metropolitan Planning Area (PA1)" means an area
6 delineated on the State Plan Policy Map and adopted by the State Planning Commission that
7 is intended to be the focus for much of the state's future redevelopment and revitalization
8 efforts.

9 "State Plan Policy Map" is defined as the geographic application of the State Development and
10 Redevelopment Plan's goals and statewide policies, and the official map of these goals and
11 policies.

12 "Stormwater" means water resulting from precipitation (including rain and snow) that runs off the
13 land's surface, is transmitted to the subsurface, or is captured by separate storm sewers or
14 other sewage or drainage facilities, or conveyed by snow removal equipment.

15 "Stormwater runoff" means water flow on the surface of the ground or in storm sewers, resulting
16 from precipitation.

17 "Stormwater management basin" means an excavation or embankment and related areas
18 designed to retain stormwater runoff. A stormwater management basin may either be
19 normally dry (that is, a detention basin or infiltration basin), retain water in a permanent pool
20 (a retention basin), or be planted mainly with wetland vegetation (most constructed
21 stormwater wetlands).

22 "Stormwater management measure" means any structural or nonstructural strategy, practice,
23 technology, process, program, or other method intended to control or reduce stormwater
24 runoff and associated pollutants, or to induce or control the infiltration or groundwater
25 recharge of stormwater or to eliminate illicit or illegal non-stormwater discharges into
26 stormwater conveyances.

27 "Tidal Flood Hazard Area" means a flood hazard area, which may be influenced by stormwater
28 runoff from inland areas, but which is primarily caused by the Atlantic Ocean.

29 "Urban Coordinating Council Empowerment Neighborhood" means a neighborhood given priority
30 access to State resources through the New Jersey Redevelopment Authority.

31 "Urban Enterprise Zones" means a zone designated by the New Jersey Enterprise Zone Authority
32 pursuant to the New Jersey Urban Enterprise Zones Act, N.J.S.A. 52:27H-60 et. seq.

33 "Urban Redevelopment Area" is defined as previously developed portions of areas:

34 (1) Delineated on the State Plan Policy Map (SPPM) as the Metropolitan Planning Area
35 (PA1), Designated Centers, Cores or Nodes;

36 (2) Designated as CAFRA Centers, Cores or Nodes;

37 (3) Designated as Urban Enterprise Zones; and

38 (4) Designated as Urban Coordinating Council Empowerment Neighborhoods.

1 “Waters of the State” means the ocean and its estuaries, all springs, streams, wetlands, and
2 bodies of surface or ground water, whether natural or artificial, within the boundaries of the
3 State of New Jersey or subject to its jurisdiction.

4 “Wetlands” or “wetland” means an area that is inundated or saturated by surface water or ground
5 water at a frequency and duration sufficient to support, and that under normal circumstances does
6 support, a prevalence of vegetation typically adapted for life in saturated soil conditions,
7 commonly known as hydrophytic vegetation.

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9 **Section 3. General Standards**

10 A. Design and Performance Standards for Stormwater Management Measures

11 1. Stormwater management measures for major development shall be developed to meet the
12 erosion control, groundwater recharge, stormwater runoff quantity, and stormwater runoff
13 quality standards in Section 4. To the maximum extent practicable, these standards shall be
14 met by incorporating nonstructural stormwater management strategies into the design. If
15 these strategies alone are not sufficient to meet these standards, structural stormwater
16 management measures necessary to meet these standards shall be incorporated into the
17 design.

18 2. The standards in this ordinance apply only to new major development and are intended to
19 minimize the impact of stormwater runoff on water quality and water quantity in receiving
20 water bodies and maintain groundwater recharge. The standards do not apply to new major
21 development to the extent that alternative design and performance standards are applicable
22 under a regional stormwater management plan or Water Quality Management Plan adopted
23 in accordance with Department rules.

24 **Section 4. Stormwater Management Requirements for Major Development**

25 A. The development shall incorporate a maintenance plan for the stormwater management
26 measures incorporated into the design of a major development in accordance with Section 10.

27 B. Stormwater management measures shall avoid adverse impacts of concentrated flow on
28 habitat for threatened and endangered species as documented in the Department’ Landscape
29 Project or Natural Heritage Database established under N.J.S.A. 13:1B-15.147 through 15.150,
30 particularly *Helonias bullata* (swamp pink) and/or *Clemmys muhlenbergi* (bog turtle).

31 C. The following linear development projects are exempt from the groundwater recharge,
32 stormwater runoff quantity, and stormwater runoff quality requirements of Sections 4.F and
33 4.G:

34 1. The construction of an underground utility line provided that the disturbed areas are
35 revegetated upon completion;

36 2. The construction of an aboveground utility line provided that the existing conditions are
37 maintained to the maximum extent practicable; and

1 3. The construction of a public pedestrian access, such as a sidewalk or trail with a maximum
2 width of 14 feet, provided that the access is made of permeable material.

3 D. A waiver from strict compliance from the groundwater recharge, stormwater runoff quantity,
4 and stormwater runoff quality requirements of Sections 4.F and 4.G may be obtained for the
5 enlargement of an existing public roadway or railroad; or the construction or enlargement of a
6 public pedestrian access, provided that the following conditions are met:

7 1. The applicant demonstrates that there is a public need for the project that cannot be
8 accomplished by any other means;

9 2. The applicant demonstrates through an alternatives analysis, that through the use of
10 nonstructural and structural stormwater management strategies and measures, the option
11 selected complies with the requirements of Sections 4.F and 4.G to the maximum extent
12 practicable;

13 3. The applicant demonstrates that, in order to meet the requirements of Sections 4.F and 4.G,
14 existing structures currently in use, such as homes and buildings, would need to be
15 condemned; and

16 4. The applicant demonstrates that it does not own or have other rights to areas, including the
17 potential to obtain through condemnation lands not falling under D.3 above within the
18 upstream drainage area of the receiving stream, that would provide additional opportunities
19 to mitigate the requirements of Sections 4.F and 4.G that were not achievable on-site.

20 E. Nonstructural Stormwater Management Strategies

21 1. To the maximum extent practicable, the standards in Sections 4.F and 4.G shall be met by
22 incorporating nonstructural stormwater management strategies set forth at Section 4.E into
23 the design. The applicant shall identify the nonstructural measures incorporated into the
24 design of the project. If the applicant contends that it is not feasible for engineering,
25 environmental, or safety reasons to incorporate any nonstructural stormwater management
26 measures identified in Paragraph 2 below into the design of a particular project, the applicant
27 shall identify the strategy considered and provide a basis for the contention.

28 2. Nonstructural stormwater management strategies incorporated into site design shall:

29 a. Protect areas that provide water quality benefits or areas particularly susceptible to
30 erosion and sediment loss;

31 b. Minimize impervious surfaces and break up or disconnect the flow of runoff over
32 impervious surfaces;

33 c. Maximize the protection of natural drainage features and vegetation;

34 d. Minimize the decrease in the "time of concentration" from pre-construction to post
35 construction. "Time of concentration" is defined as the time it takes for runoff to travel from
36 the hydraulically most distant point of the watershed to the point of interest within a
37 watershed;

- 1 e. Minimize land disturbance including clearing and grading;
- 2 f. Minimize soil compaction;
- 3 g. Provide low-maintenance landscaping that encourages retention and planting of native
- 4 vegetation and minimizes the use of lawns, fertilizers and pesticides;
- 5 h. Provide vegetated open-channel conveyance systems discharging into and through stable
- 6 vegetated areas;
- 7 i. Provide other source controls to prevent or minimize the use or exposure of pollutants at
- 8 the site, in order to prevent or minimize the release of those pollutants into stormwater
- 9 runoff. Such source controls include, but are not limited to:
 - 10 (1) Site design features that help to prevent accumulation of trash and debris in drainage
 - 11 systems, including features that satisfy Section 4.E.3. below;
 - 12 (2) Site design features that help to prevent discharge of trash and debris from drainage
 - 13 systems;
 - 14 (3) Site design features that help to prevent and/or contain spills or other harmful
 - 15 accumulations of pollutants at industrial or commercial developments; and
 - 16 (4) When establishing vegetation after land disturbance, applying fertilizer in accordance
 - 17 with the requirements established under the Soil Erosion and Sediment Control Act,
 - 18 N.J.S.A. 4:24-39 et seq., and implementing rules.
- 19 3. Site design features identified under Section 4.E.2.i.(2) above shall comply with the following
- 20 standard to control passage of solid and floatable materials through storm drain inlets. For
- 21 purposes of this paragraph, "solid and floatable materials" means sediment, debris, trash,
- 22 and other floating, suspended, or settleable solids. For exemptions to this standard see
- 23 Section 4.E.3.c below.
 - 24 a. Design engineers shall use either of the following grates whenever they use a grate in
 - 25 pavement or another ground surface to collect stormwater from that surface into a storm
 - 26 drain or surface water body under that grate:
 - 27 (1) The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is
 - 28 described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways
 - 29 Planning and Design Guidelines (April 1996); or
 - 30 (2) A different grate, if each individual clear space in that grate has an area of no more
 - 31 than seven (7.0) square inches, or is no greater than 0.5 inches across the smallest
 - 32 dimension.
 - 33 Examples of grates subject to this standard include grates in grate inlets, the grate
 - 34 portion (non-curb-opening portion) of combination inlets, grates on storm sewer
 - 35 manholes, ditch grates, trench grates, and grates of spacer bars in slotted drains.
 - 36 Examples of ground surfaces include surfaces of roads (including bridges), driveways,
 - 37 parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater
 - 38 basin floors.

1 b. Whenever design engineers use a curb-opening inlet, the clear space in that curb opening
2 (or each individual clear space, if the curb opening has two or more clear spaces) shall
3 have an area of no more than seven (7.0) square inches, or be no greater than two (2.0)
4 inches across the smallest dimension.

5 c. This standard does not apply:

6 (1) Where the review agency determines that this standard would cause inadequate
7 hydraulic performance that could not practicably be overcome by using additional or
8 larger storm drain inlets that meet these standards;

9 (2) Where flows from the water quality design storm as specified in Section 4.G.1 are
10 conveyed through any device (e.g., end of pipe netting facility, manufactured
11 treatment device, or a catch basin hood) that is designed, at a minimum, to prevent
12 delivery of all solid and floatable materials that could not pass through one of the
13 following:

14 (a) A rectangular space four and five-eighths inches long and one and one-half
15 inches wide (this option does not apply for outfall netting facilities); or

16 (b) A bar screen having a bar spacing of 0.5 inches.

17 (3) Where flows are conveyed through a trash rack that has parallel bars with one-inch
18 (1") spacing between the bars, to the elevation of the water quality design storm as
19 specified in Section 4.G.1; or

20 (4) Where the New Jersey Department of Environmental Protection determines,
21 pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c),
22 that action to meet this standard is an undertaking that constitutes an encroachment
23 or will damage or destroy the New Jersey Register listed historic property.

24 4. Any land area used as a nonstructural stormwater management measure to meet the
25 performance standards in Sections 4.F and 4.G shall be dedicated to a government agency,
26 subjected to a conservation restriction filed with the appropriate County Clerk's office, or
27 subject to an approved equivalent restriction that ensures that measure or an equivalent
28 stormwater management measure approved by the reviewing agency is maintained in
29 perpetuity.

30 5. Guidance for nonstructural stormwater management strategies is available in the New
31 Jersey Stormwater Best Management Practices Manual. The BMP Manual may be obtained
32 from the address identified in Section 7, or found on the Department's website at
33 www.njstormwater.org.

34 F. Erosion Control, Groundwater Recharge and Runoff Quantity Standards

35 1. This subsection contains minimum design and performance standards to control erosion,
36 encourage and control infiltration and groundwater recharge, and control stormwater runoff
37 quantity impacts of major development.

- 1 a. The minimum design and performance standards for erosion control are those established
2 under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq. and
3 implementing rules.
- 4 b. The minimum design and performance standards for groundwater recharge are as
5 follows:
- 6 (1) The design engineer shall, using the assumptions and factors for stormwater runoff
7 and groundwater recharge calculations at Section 5, either:
- 8 (a) Demonstrate through hydrologic and hydraulic analysis that the site and its
9 stormwater management measures maintain 100 percent of the average annual
10 pre-construction groundwater recharge volume for the site; or
- 11 (b) Demonstrate through hydrologic and hydraulic analysis that the increase of
12 stormwater runoff volume from pre-construction to post-construction for the 2-
13 year storm is infiltrated.
- 14 (2) This groundwater recharge requirement does not apply to projects within the “urban
15 redevelopment area,” or to projects subject to (3) below.
- 16 (3) The following types of stormwater shall not be recharged:
- 17 (a) Stormwater from areas of high pollutant loading. High pollutant loading areas are
18 areas in industrial and commercial developments where solvents and/or
19 petroleum products are loaded/unloaded, stored, or applied, areas where
20 pesticides are loaded/unloaded or stored; areas where hazardous materials are
21 expected to be present in greater than “reportable quantities” as defined by the
22 United States Environmental Protection Agency (EPA) at 40 CFR 302.4; areas
23 where recharge would be inconsistent with Department approved remedial action
24 work plan or landfill closure plan and areas with high risks for spills of toxic
25 materials, such as gas stations and vehicle maintenance facilities; and
- 26 (b) Industrial stormwater exposed to “source material.” “Source material” means any
27 material(s) or machinery, located at an industrial facility, that is directly or
28 indirectly related to process, manufacturing or other industrial activities, which
29 could be a source of pollutants in any industrial stormwater discharge to
30 groundwater. Source materials include, but are not limited to, raw materials;
31 intermediate products; final products; waste materials; by-products; industrial
32 machinery and fuels, and lubricants, solvents, and detergents that are related to
33 process, manufacturing, or other industrial activities that are exposed to
34 stormwater.
- 35 (4) The design engineer shall assess the hydraulic impact on the groundwater table and
36 design the site so as to avoid adverse hydraulic impacts. Potential adverse hydraulic
37 impacts include, but are not limited to, exacerbating a naturally or seasonally high
38 water table so as to cause surficial ponding, flooding of basements, or interference
39 with the proper operation of subsurface sewage disposal systems and other
40 subsurface structures in the vicinity or downgradient of the groundwater recharge
41 area.

1 c. In order to control stormwater runoff quantity impacts, the design engineer shall, using the
2 assumptions and factors for stormwater runoff calculations at Section 5, complete one of
3 the following:

4 (1) Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving
5 the site, post-construction runoff hydrographs for the two, 10, and 100-year storm
6 events do not exceed, at any point in time, the pre-construction runoff hydrographs
7 for the same storm events;

8 (2) Demonstrate through hydrologic and hydraulic analysis that there is no increase, as
9 compared to the pre-construction condition, in the peak runoff rates of stormwater
10 leaving the site for the two, 10, and 100-year storm events and that the increased
11 volume or change in timing of stormwater runoff will not increase flood damage at or
12 downstream of the site. This analysis shall include the analysis of impacts of existing
13 land uses and projected land uses assuming full development under existing zoning
14 and land use ordinances in the drainage area;

15 (3) Design stormwater management measures so that the post-construction peak runoff
16 rates for the 2, 10 and 100 year storm events are 50, 75 and 80 percent, respectively,
17 of the pre-construction peak runoff rates. The percentages apply only to the post-
18 construction stormwater runoff that is attributable to the portion of the site on which
19 the proposed development or project is to be constructed. The percentages shall not
20 be applied to post-construction stormwater runoff into tidal flood hazard areas if the
21 increased volume of stormwater runoff will not increase flood damages below the
22 point of discharge; or

23 (4) In tidal flood hazard areas, stormwater runoff quantity analysis in accordance with (1),
24 (2) and (3) above shall only be applied if the increased volume of stormwater runoff
25 could increase flood damages below the point of discharge.

26 2. Any application for a new agricultural development that meets the definition of major
27 development at Section 2 shall be submitted to the appropriate Soil Conservation District
28 for review and approval in accordance with the requirements of this section and any
29 applicable Soil Conservation District guidelines for stormwater runoff quantity and
30 erosion control. For the purposes of this section, "agricultural development" means land
31 uses normally associated with the production of food, fiber and livestock for sale. Such
32 uses do not include the development of land for the processing or sale of food and the
33 manufacturing of agriculturally related products.

34 G. Stormwater Runoff Quality Standards

35 1. Stormwater management measures shall be designed to reduce the post-construction load
36 of total suspended solids (TSS) in stormwater runoff by 80 percent of the anticipated load
37 from the developed site, expressed as an annual average. Stormwater management
38 measures shall only be required for water quality control if an additional 1/4 acre of
39 impervious surface is being proposed on a development site. The requirement to reduce
40 TSS does not apply to any stormwater runoff in a discharge regulated under a numeric
41 effluent limitation for TSS imposed under the New Jersey Pollution Discharge Elimination
42 System (NJPDES) rules, N.J.A.C. 7:14A, or in a discharge specifically exempt under a

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NJPDES permit from this requirement. The water quality design storm is 1.25 inches of rainfall in two hours. Water quality calculations shall take into account the distribution of rain from the water quality design storm, as reflected in Table 1. The calculation of the volume of runoff may take into account the implementation of non-structural and structural stormwater management measures.

Table 1: Water Quality Design Storm Distribution			
Time (Minutes)	Cumulative Rainfall (Inches)	Time (Minutes)	Cumulative Rainfall (Inches)
0	0.0000	65	0.8917
5	0.0083	70	0.9917
10	0.0166	75	1.0500
15	0.0250	80	1.0840
20	0.0500	85	1.1170
25	0.0750	90	1.1500
30	0.1000	95	1.1750
35	0.1330	100	1.2000
40	0.1660	105	1.2250
45	0.2000	110	1.2334
50	0.2583	115	1.2417
55	0.3583	120	1.2500
60	0.6250		

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- For purposes of TSS reduction calculations, Table 2 below presents the presumed removal rates for certain BMPs designed in accordance with the New Jersey Stormwater Best Management Practices Manual. The BMP Manual may be obtained from the address identified in Section 7, or found on the Department’s website at www.njstormwater.org. The BMP Manual and other sources of technical guidance are listed in Section 7. TSS reduction shall be calculated based on the removal rates for the BMPs in Table 2 below. Alternative removal rates and methods of calculating removal rates may be used if the design engineer provides documentation demonstrating the capability of these alternative rates and methods to the review agency. A copy of any approved alternative rate or method of calculating the removal rate shall be provided to the Department at the following address: Division of Watershed Management, New Jersey Department of Environmental Protection, PO Box 418 Trenton, New Jersey, 08625-0418.
- If more than one BMP in series is necessary to achieve the required 80 percent TSS reduction for a site, the applicant shall utilize the following formula to calculate TSS reduction:

$$R = A + B - (AXB)/100$$

1 Where
 2 R = total TSS percent load removal from application of both BMPs, and
 3 A = the TSS percent removal rate applicable to the first BMP
 4 B = the TSS percent removal rate applicable to the second BMP

Table 2: TSS Removal Rates for BMPs	
Best Management Practice	TSS Percent Removal Rate
Bioretention Systems	90
Constructed Stormwater Wetland	90
Extended Detention Basin	40-60
Infiltration Structure	80
Manufactured Treatment Device	See Section 6.C
Sand Filter	80
Vegetative Filter Strip	60-80
Wet Pond	50-90

- 5 4. If there is more than one onsite drainage area, the 80 percent TSS removal rate shall apply
 6 to each drainage area, unless the runoff from the subareas converge on site in which case
 7 the removal rate can be demonstrated through a calculation using a weighted average.
- 8 5. Stormwater management measures shall also be designed to reduce, to the maximum
 9 extent feasible, the post-construction nutrient load of the anticipated load from the developed
 10 site in stormwater runoff generated from the water quality design storm. In achieving
 11 reduction of nutrients to the maximum extent feasible, the design of the site shall include
 12 nonstructural strategies and structural measures that optimize nutrient removal while still
 13 achieving the performance standards in Sections 4.F and 4.G.
- 14 6. Additional information and examples are contained in the New Jersey Stormwater Best
 15 Management Practices Manual, which may be obtained from the address identified in
 16 Section 7.
- 17 7. In accordance with the definition of FW1 at N.J.A.C. 7:9B-1.4, stormwater management
 18 measures shall be designed to prevent any increase in stormwater runoff to waters classified
 19 as FW1.
- 20 8. Special water resource protection areas shall be established along all waters designated
 21 Category One at N.J.A.C. 7:9B, and perennial or intermittent streams that drain into or
 22 upstream of the Category One waters as shown on the USGS Quadrangle Maps or in the
 23 County Soil Surveys, within the associated HUC14 drainage area. These areas shall be
 24 established for the protection of water quality, aesthetic value, exceptional ecological

1 significance, exceptional recreational significance, exceptional water supply significance,
2 and exceptional fisheries significance of those established Category One waters. These
3 areas shall be designated and protected as follows:

4 a. The applicant shall preserve and maintain a special water resource protection area in
5 accordance with one of the following:

6 (1) A 300-foot special water resource protection area shall be provided on each side of
7 the waterway, measured perpendicular to the waterway from the top of the bank
8 outwards or from the centerline of the waterway where the bank is not defined,
9 consisting of existing vegetation or vegetation allowed to follow natural succession is
10 provided.

11 (2) Encroachment within the designated special water resource protection area under
12 Subsection (1) above shall only be allowed where previous development or
13 disturbance has occurred (for example, active agricultural use, parking area or
14 maintained lawn area). The encroachment shall only be allowed where applicant
15 demonstrates that the functional value and overall condition of the special water
16 resource protection area will be maintained to the maximum extent practicable. In no
17 case shall the remaining special water resource protection area be reduced to less
18 than 150 feet as measured perpendicular to the top of bank of the waterway or
19 centerline of the waterway where the bank is undefined. All encroachments proposed
20 under this subparagraph shall be subject to review and approval by the Department.

21 b. All stormwater shall be discharged outside of and flow through the special water resource
22 protection area and shall comply with the Standard for Off-Site Stability in the "Standards
23 For Soil Erosion and Sediment Control in New Jersey," established under the Soil Erosion
24 and Sediment Control Act , N.J.S.A. 4:24-39 et seq.

25 c. If stormwater discharged outside of and flowing through the special water resource
26 protection area cannot comply with the Standard For Off-Site Stability in the "Standards
27 for Soil Erosion and Sediment Control in New Jersey," established under the Soil Erosion
28 and Sediment Control Act , N.J.S.A. 4:24-39 et seq., then the stabilization measures in
29 accordance with the requirements of the above standards may be placed within the
30 special water resource protection area, provided that:

31 (1) Stabilization measures shall not be placed within 150 feet of the Category One
32 waterway;

33 (2) Stormwater associated with discharges allowed by this section shall achieve a 95
34 percent TSS post-construction removal rate;

35 (3) Temperature shall be addressed to ensure no impact on the receiving waterway;

36 (4) The encroachment shall only be allowed where the applicant demonstrates that the
37 functional value and overall condition of the special water resource protection area
38 will be maintained to the maximum extent practicable;

39 (5) A conceptual project design meeting shall be held with the appropriate Department
40 staff and Soil Conservation District staff to identify necessary stabilization measures;
41 and

1 (6) All encroachments proposed under this section shall be subject to review and
2 approval by the Department.

3 d. A stream corridor protection plan may be developed by a regional stormwater
4 management planning committee as an element of a regional stormwater management
5 plan, or by a municipality through an adopted municipal stormwater management plan. If a
6 stream corridor protection plan for a waterway subject to Section 4.G(8) has been
7 approved by the Department of Environmental Protection, then the provisions of the plan
8 shall be the applicable special water resource protection area requirements for that
9 waterway. A stream corridor protection plan for a waterway subject to G.8 shall maintain
10 or enhance the current functional value and overall condition of the special water resource
11 protection area as defined in G.8.a.(1) above. In no case shall a stream corridor protection
12 plan allow the reduction of the Special Water Resource Protection Area to less than 150
13 feet as measured perpendicular to the waterway subject to this subsection.

14 e. Paragraph G.8 does not apply to the construction of one individual single family dwelling
15 that is not part of a larger development on a lot receiving preliminary or final subdivision
16 approval on or before February 2, 2004, provided that the construction begins on or
17 before February 2, 2009.

18 **Section 5. Calculation of Stormwater Runoff and Groundwater Recharge**

19 A. Stormwater runoff shall be calculated in accordance with the following:

20 1. The design engineer shall calculate runoff using one of the following methods:

21 a. The USDA Natural Resources Conservation Service (NRCS) methodology, including the
22 NRCS Runoff Equation and Dimensionless Unit Hydrograph, as described in the NRCS
23 National Engineering Handbook Section 4 – Hydrology and Technical Release 55 – Urban
24 Hydrology for Small Watersheds; or

25 b. The Rational Method for peak flow and the Modified Rational Method for hydrograph
26 computations.

27 2. For the purpose of calculating runoff coefficients and groundwater recharge, there is a
28 presumption that the pre-construction condition of a site or portion thereof is a wooded land
29 use with good hydrologic condition. The term “runoff coefficient” applies to both the NRCS
30 methodology at Section 5.A.1.a and the Rational and Modified Rational Methods at Section
31 5.A.1.b. A runoff coefficient or a groundwater recharge land cover for an existing condition
32 may be used on all or a portion of the site if the design engineer verifies that the hydrologic
33 condition has existed on the site or portion of the site for at least five years without
34 interruption prior to the time of application. If more than one land cover have existed on the
35 site during the five years immediately prior to the time of application, the land cover with the
36 lowest runoff potential shall be used for the computations. In addition, there is the
37 presumption that the site is in good hydrologic condition (if the land use type is pasture,
38 lawn, or park), with good cover (if the land use type is woods), or with good hydrologic
39 condition and conservation treatment (if the land use type is cultivation).

- 1 3. In computing pre-construction stormwater runoff, the design engineer shall account for all
2 significant land features and structures, such as ponds, wetlands, depressions, hedgerows,
3 or culverts, that may reduce pre-construction stormwater runoff rates and volumes.
- 4 4. In computing stormwater runoff from all design storms, the design engineer shall consider
5 the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces
6 separately to accurately compute the rates and volume of stormwater runoff from the site. To
7 calculate runoff from unconnected impervious cover, urban impervious area modifications as
8 described in the NRCS Technical Release 55 – Urban Hydrology for Small Watersheds and
9 other methods may be employed.
- 10 5. If the invert of the outlet structure of a stormwater management measure is below the flood
11 hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into
12 account the effects of tailwater in the design of structural stormwater management
13 measures.

14 B. Groundwater recharge may be calculated in accordance with the following:

- 15 • The New Jersey Geological Survey Report GSR-32 A Method for Evaluating Ground-
16 Water Recharge Areas in New Jersey, incorporated herein by reference as amended and
17 supplemented. Information regarding the methodology is available from the New Jersey
18 Stormwater Best Management Practices Manual; at <http://www.state.nj.us/dep/njgs/>; or at
19 New Jersey Geological Survey, 29 Arctic Parkway, P.O. Box 427 Trenton, New Jersey
20 08625-0427; (609) 984-6587.

21 **Section 6. Standards for Structural Stormwater Management Measures**

22 A. Standards for structural stormwater management measures are as follows:

- 23 1. Structural stormwater management measures shall be designed to take into account the
24 existing site conditions, including, for example, environmentally critical areas, wetlands;
25 flood-prone areas; slopes; depth to seasonal high water table; soil type, permeability and
26 texture; drainage area and drainage patterns; and the presence of solution-prone carbonate
27 rocks (limestone).
- 28 2. Structural stormwater management measures shall be designed to minimize maintenance,
29 facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be
30 installed at the intake to the outlet structure as appropriate, and shall have parallel bars with
31 one-inch (1") spacing between the bars to the elevation of the water quality design storm.
32 For elevations higher than the water quality design storm, the parallel bars at the outlet
33 structure shall be spaced no greater than one-third (1/3) the width of the diameter of the
34 orifice or one-third (1/3) the width of the weir, with a minimum spacing between bars of one-
35 inch and a maximum spacing between bars of six inches. In addition, the design of trash
36 racks must comply with the requirements of Section 8.D.
- 37 3. Structural stormwater management measures shall be designed, constructed, and installed
38 to be strong, durable, and corrosion resistant. Measures that are consistent with the relevant
39 portions of the Residential Site Improvement Standards at N.J.A.C. 5:21-7.3, 7.4, and 7.5
40 shall be deemed to meet this requirement.

1 4. At the intake to the outlet from the stormwater management basin, the orifice size shall be a
2 minimum of two and one-half inches in diameter.

3 5. Stormwater management basins shall be designed to meet the minimum safety standards
4 for stormwater management basins at Section 8.

5 B. Stormwater management measure guidelines are available in the New Jersey Stormwater Best
6 Management Practices Manual. Other stormwater management measures may be utilized
7 provided the design engineer demonstrates that the proposed measure and its design will
8 accomplish the required water quantity, groundwater recharge and water quality design and
9 performance standards established by Section 4 of this ordinance.

10 C. Manufactured treatment devices may be used to meet the requirements of Section 4 of this
11 ordinance, provided the pollutant removal rates are verified by the New Jersey Corporation for
12 Advanced Technology and certified by the Department.

13 **Section 7. Sources for Technical Guidance**

14 A. Technical guidance for stormwater management measures can be found in the documents
15 listed at 1 and 2 below, which are available from Maps and Publications, New Jersey
16 Department of Environmental Protection, 428 East State Street, P.O. Box 420, Trenton, New
17 Jersey, 08625; telephone (609) 777-1038.

18 1. Guidelines for stormwater management measures are contained in the New Jersey
19 Stormwater Best Management Practices Manual, as amended. Information is provided on
20 stormwater management measures such as: bioretention systems, constructed stormwater
21 wetlands, dry wells, extended detention basins, infiltration structures, manufactured
22 treatment devices, pervious paving, sand filters, vegetative filter strips, and wet ponds.

23 2. The New Jersey Department of Environmental Protection Stormwater Management Facilities
24 Maintenance Manual, as amended.

25 B. Additional technical guidance for stormwater management measures can be obtained from the
26 following:

27 1. The "Standards for Soil Erosion and Sediment Control in New Jersey" promulgated by the
28 State Soil Conservation Committee and incorporated into N.J.A.C. 2:90. Copies of these
29 standards may be obtained by contacting the State Soil Conservation Committee or any of
30 the Soil Conservation Districts listed in N.J.A.C. 2:90-1.3(a)4. The location, address, and
31 telephone number of each Soil Conservation District may be obtained from the State Soil
32 Conservation Committee, P.O. Box 330, Trenton, New Jersey 08625; (609) 292-5540;

33 2. The Rutgers Cooperative Extension Service, 732-932-9306; and

34 3. The Soil Conservation Districts listed in N.J.A.C. 2:90-1.3(a)4. The location, address, and
35 telephone number of each Soil Conservation District may be obtained from the State Soil
36 Conservation Committee, P.O. Box 330, Trenton, New Jersey, 08625, (609) 292-5540.

37

1 **Section 8. Safety Standards for Stormwater Management Basins**

2 A. This section sets forth requirements to protect public safety through the proper design and
3 operation of stormwater management basins. This section applies to any new stormwater
4 management basin.

5 B. Requirements for Trash Racks, Overflow Grates and Escape Provisions

6 1. A trash rack is a device designed to catch trash and debris and prevent the clogging of outlet
7 structures. Trash racks shall be installed at the intake to the outlet from the stormwater
8 management basin to ensure proper functioning of the basin outlets in accordance with the
9 following:

10 a. The trash rack shall have parallel bars, with no greater than six inch spacing between the
11 bars.

12 b. The trash rack shall be designed so as not to adversely affect the hydraulic performance
13 of the outlet pipe or structure.

14 c. The average velocity of flow through a clean trash rack is not to exceed 2.5 feet per
15 second under the full range of stage and discharge. Velocity is to be computed on the
16 basis of the net area of opening through the rack.

17 d. The trash rack shall be constructed and installed to be rigid, durable, and corrosion
18 resistant, and shall be designed to withstand a perpendicular live loading of 300 lbs/ft sq.

19 2. An overflow grate is designed to prevent obstruction of the overflow structure. If an outlet
20 structure has an overflow grate, such grate shall meet the following requirements:

21 a. The overflow grate shall be secured to the outlet structure but removable for emergencies
22 and maintenance.

23 b. The overflow grate spacing shall be no less than two inches across the smallest
24 dimension.

25 c. The overflow grate shall be constructed and installed to be rigid, durable, and corrosion
26 resistant, and shall be designed to withstand a perpendicular live loading of 300 lbs./ft sq.

27 3. For purposes of this paragraph 3, escape provisions means the permanent installation of
28 ladders, steps, rungs, or other features that provide easily accessible means of egress from
29 stormwater management basins. Stormwater management basins shall include escape
30 provisions as follows:

31 a. If a stormwater management basin has an outlet structure, escape provisions shall be
32 incorporated in or on the structure. With the prior approval of the reviewing agency
33 identified in Section 8.C a free-standing outlet structure may be exempted from this
34 requirement.

35 b. Safety ledges shall be constructed on the slopes of all new stormwater management
36 basins having a permanent pool of water deeper than two and one-half feet. Such safety
37 ledges shall be comprised of two steps. Each step shall be four to six feet in width. One

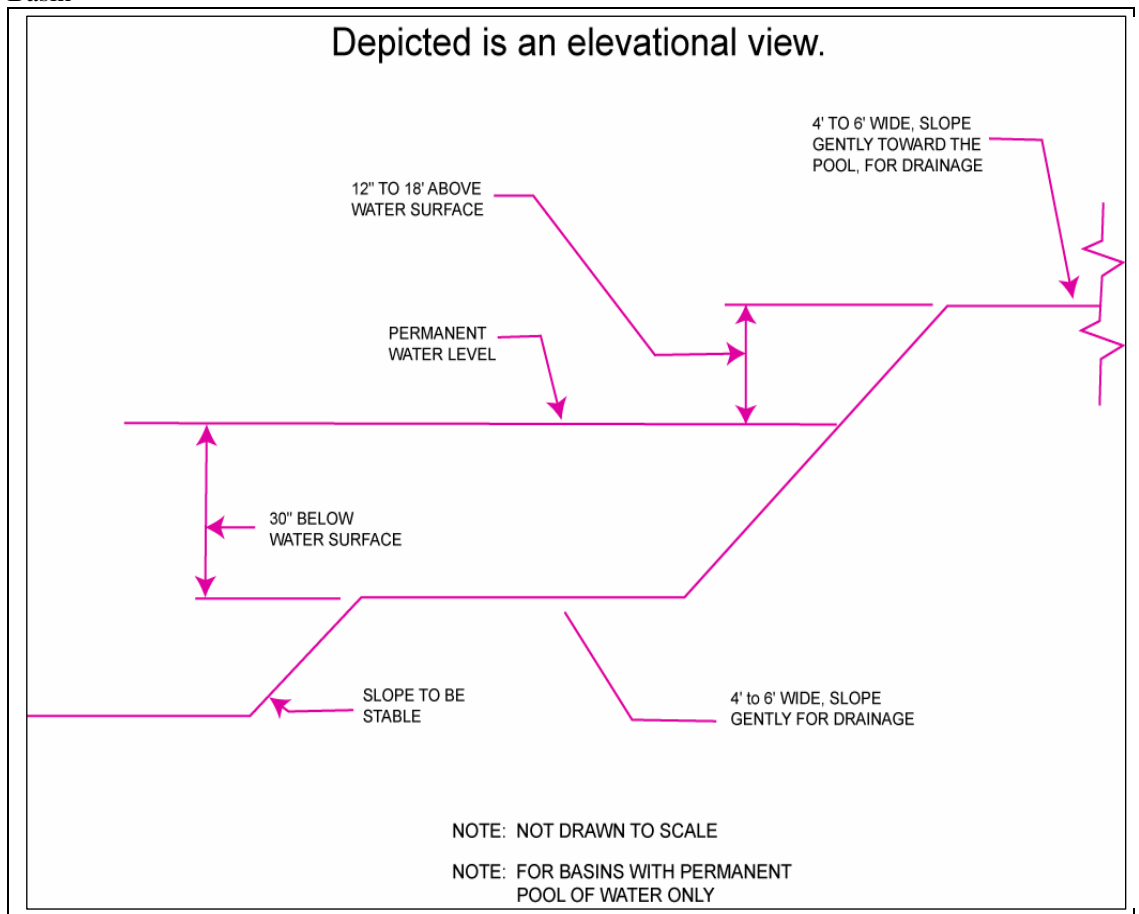
1 step shall be located approximately two and one-half feet below the permanent water
2 surface, and the second step shall be located one to one and one-half feet above the
3 permanent water surface. See Section 8.D for an illustration of safety ledges in a
4 stormwater management basin.

5 c. In new stormwater management basins, the maximum interior slope for an earthen dam,
6 embankment, or berm shall not be steeper than 3 horizontal to 1 vertical.

7 C. Variance or Exemption from Safety Standards

8 1. A variance or exemption from the safety standards for stormwater management basins may be
9 granted only upon a written finding by the appropriate reviewing agency (municipality, county or
10 Department) that the variance or exemption will not constitute a threat to public safety.

11 D. Illustration of Safety Ledges in a New Stormwater Management
12 Basin



13
14
15 **Section 9. Requirements for a Site Development Stormwater Plan**

16 A. Submission of Site Development Stormwater Plan

17 1. Whenever an applicant seeks municipal approval of a development subject to this
18 ordinance, the applicant shall submit all of the required components of the Checklist for the

1 Site Development Stormwater Plan at Section 9.C below as part of the submission of the
2 applicant's application for subdivision or site plan approval.

3 2. The applicant shall demonstrate that the project meets the standards set forth in this
4 ordinance.

5 3. The applicant shall submit 15 copies of the materials listed in the checklist for site
6 development stormwater plans in accordance with Section 9.C of this ordinance.

7 B. Site Development Stormwater Plan Approval

8 The applicant's Site Development project shall be reviewed as a part of the subdivision or site
9 plan review process by the municipal board or official from which municipal approval is sought.
10 That municipal board or official shall consult the Township Engineer to determine if all of the
11 checklist requirements have been satisfied and to determine if the project meets the standards
12 set forth in this ordinance.

13 C. Checklist Requirements

14 The following information shall be required:

15 1. Topographic Base Map

16 The Township Engineer may require upstream tributary drainage system information as
17 necessary. It is recommended that the topographic base map of the site be submitted which
18 extends a minimum of 200 feet beyond the limits of the proposed development, at a scale of
19 1"=200' or greater, showing 2-foot contour intervals. The map as appropriate may indicate
20 the following: existing surface water drainage, shorelines, steep slopes, soils, erodible soils,
21 perennial or intermittent streams that drain into or upstream of the Category One waters,
22 wetlands and flood plains along with their appropriate buffer strips, marshlands and other
23 wetlands, pervious or vegetative surfaces, existing man-made structures, roads, bearing and
24 distances of property lines, and significant natural and manmade features not otherwise
25 shown.

26 2. Environmental Site Analysis

27 A written and graphic description of the natural and man-made features of the site and its
28 environs. This description should include a discussion of soil conditions, slopes, wetlands,
29 waterways and vegetation on the site. Particular attention should be given to unique,
30 unusual, or environmentally sensitive features and to those that provide particular
31 opportunities or constraints for development.

32 3. Project Description and Site Plan(s)

33 A map (or maps) at the scale of the topographical base map indicating the location of
34 existing and proposed buildings, roads, parking areas, utilities, structural facilities for
35 stormwater management and sediment control, and other permanent structures. The map(s)
36 shall also clearly show areas where alterations occur in the natural terrain and cover,
37 including lawns and other landscaping, and seasonal high ground water elevations. A written
38 description of the site plan and justification of proposed changes in natural conditions may
39 also be provided.

1 4. Land Use Planning and Source Control Plan

2 This plan shall provide a demonstration of how the goals and standards of Sections 3
3 through 6 are being met. The focus of this plan shall be to describe how the site is being
4 developed to meet the objective of controlling groundwater recharge, stormwater quality and
5 stormwater quantity problems at the source by land management and source controls
6 whenever possible.

7 5. Stormwater Management Facilities Map

8 The following information, illustrated on a map of the same scale as the topographic base
9 map, shall be included:

10 a. Total area to be paved or built upon, proposed surface contours, land area to be occupied
11 by the stormwater management facilities and the type of vegetation thereon, and details of
12 the proposed plan to control and dispose of stormwater.

13 b. Details of all stormwater management facility designs, during and after construction,
14 including discharge provisions, discharge capacity for each outlet at different levels of
15 detention and emergency spillway provisions with maximum discharge capacity of each
16 spillway.

17 6. Calculations

18 a. Comprehensive hydrologic and hydraulic design calculations for the pre-development and
19 post-development conditions for the design storms specified in Section 4 of this
20 ordinance.

21 b. When the proposed stormwater management control measures (e.g., infiltration basins)
22 depends on the hydrologic properties of soils, then a soils report shall be submitted. The
23 soils report shall be based on onsite boring logs or soil pit profiles. The number and
24 location of required soil borings or soil pits shall be determined based on what is needed
25 to determine the suitability and distribution of soils present at the location of the control
26 measure.

27 7. Maintenance and Repair Plan

28 The design and planning of the stormwater management facility shall meet the maintenance
29 requirements of Section 10.

30 8. Waiver from Submission Requirements

31 The municipal official or board reviewing an application under this ordinance may, in
32 consultation with the Township Engineer, waive submission of any of the requirements in
33 Sections 9.C.1 through 9.C.6 of this ordinance when it can be demonstrated that the information
34 requested is impossible to obtain or it would create a hardship on the applicant to obtain and its
35 absence will not materially affect the review process.

36
37 **Section 10. Maintenance and Repair**

38 A. Applicability

1 1. Projects subject to review as in Section 1.C of this ordinance shall comply with the
2 requirements of Sections 10.B and 10.C.

3 B. General Maintenance

4 1. The design engineer shall prepare a maintenance plan for the stormwater management
5 measures incorporated into the design of a major development.

6 2. The maintenance plan shall contain specific preventative maintenance tasks and schedules;
7 cost estimates, including estimated cost of sediment, debris, or trash removal; and the
8 name, address, and telephone number of the person or persons responsible for preventative
9 and corrective maintenance (including replacement). Maintenance guidelines for stormwater
10 management measures are available in the New Jersey Stormwater Best Management
11 Practices Manual. If the maintenance plan identifies a person other than the developer (for
12 example, a public agency or homeowners' association) as having the responsibility for
13 maintenance, the plan shall include documentation of such person's agreement to assume
14 this responsibility, or of the developer's obligation to dedicate a stormwater management
15 facility to such person under an applicable ordinance or regulation.

16 3. Responsibility for maintenance shall not be assigned or transferred to the owner or tenant of
17 an individual property in a residential development or project, unless such owner or tenant
18 owns or leases the entire residential development or project.

19 4. If the person responsible for maintenance identified under Section 10.B.2 above is not a
20 public agency, the maintenance plan and any future revisions based on Section 10.B.7
21 below shall be recorded upon the deed of record for each property on which the
22 maintenance described in the maintenance plan must be undertaken.

23 5. Preventative and corrective maintenance shall be performed to maintain the function of the
24 stormwater management measure, including repairs or replacement to the structure;
25 removal of sediment, debris, or trash; restoration of eroded areas; snow and ice removal;
26 fence repair or replacement; restoration of vegetation; and repair or replacement of
27 nonvegetated linings.

28 6. The person responsible for maintenance identified under Section 10.B.2 above shall
29 maintain a detailed log of all preventative and corrective maintenance for the structural
30 stormwater management measures incorporated into the design of the development,
31 including a record of all inspections and copies of all maintenance-related work orders.

32 7. The person responsible for maintenance identified under Section 10.B.2 above shall
33 evaluate the effectiveness of the maintenance plan at least once per year and adjust the
34 plan and the deed as needed.

35 8. The person responsible for maintenance identified under Section 10.B.2 above shall retain
36 and make available, upon request by any public entity with administrative, health,
37 environmental, or safety authority over the site, the maintenance plan and the
38 documentation required by Sections 10.B.6 and 10.B.7 above.

1 9. The requirements of Sections 10.B.3 and 10.B.4 do not apply to stormwater management
2 facilities that are dedicated to and accepted by the municipality or another governmental
3 agency.

4 10. The person responsible for the maintenance of the stormwater management measures,
5 unless it is the Township, shall post a two year maintenance guarantee in accordance with
6 N.J.S.A. 40:55D-53.

7 11. In the event that the stormwater management facility becomes a danger to public safety or
8 public health, or if it is in need of maintenance or repair, the municipality shall so notify the
9 responsible person in writing. Upon receipt of that notice, the responsible person shall have
10 fourteen (14) days to effect maintenance and repair of the facility in a manner that is
11 approved by the municipal engineer or his designee. The municipality, in its discretion, may
12 extend the time allowed for effecting maintenance and repair for good cause. If the
13 responsible person fails or refuses to perform such maintenance and repair, the municipality
14 or County may immediately proceed to do so and shall bill the cost thereof to the responsible
15 person.

16 B. Nothing in this section shall preclude the municipality in which the major development is
17 located from requiring the posting of a performance or maintenance guarantee in accordance
18 with N.J.S.A. 40:55D-53.

19 **Section 11. Violations and Penalties**

20 Any person who violates any provision of this chapter shall, upon conviction thereof, be
21 punished by a fine not exceeding \$2000, or by imprisonment for a term not exceeding 90 days,
22 or both. A separate offense shall be deemed committed on each day during or on which a
23 violation occurs or continues.

24 **Section 12.**

25 Except as hereby amended, the General Code of the Township of Livingston shall remain in
26 full force and effect.

27 **Section 13.**

28 This Ordinance shall take effect upon final passage and publication in accordance with the law.
29 This ordinance specifically shall take effect immediately upon the approval by the county
30 review agency, or sixty (60) days from the receipt of the ordinance by the county review
31 agency if the county review agency should fail to act.

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34 _____
RENEE GREEN, Mayor

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36 _____
GLENN R. TURTLETAUB, Township Clerk

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Approved as to form:

SHARON L. WEINER, Township Attorney

Adopted: 3/20/06