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Please Note: This document should be read in concert with the Final Consistency Review and Recommendations Report prepared by Highlands Council Staff for the municipality.

Prior to adoption: a) this cover page will be replaced in its entirety with one using the municipality's formatting and logo; b) the document will be finalized; and c) all instructional text will be removed.

Township of Rockaway DRAFT Highlands Land Use Ordinance

Prepared by the State of New Jersey Highlands Water Protection and Planning Council in Support of the Highlands Regional Master Plan

February 2011

HIGHLANDS AREA LAND USE ORDINANCE

A Supplement to the Land Use Ordinances of

TOWNSHIP OF ROCKAWAY

MORRIS COUNTY, NEW JERSEY

DRAFT for submission to the New Jersey Highlands Water Protection and Planning Council toward achieving plan conformance with the Highlands Regional Master Plan

DATE: _____, 2011

This document is based on a model Highlands Land Use Ordinance prepared and provided to all Highlands municipalities by the New Jersey Highlands Water Protection and Planning Council.

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ARTICLE 1. TITLE, PURPOSE, SCOPE

§ 1.1 SHORT TITLE

This Ordinance shall be known and cited as the "Township of Rockaway Highlands Area Land Use Ordinance."

§ 1.2 PURPOSE

The purpose of this Ordinance is to effectuate the policies, goals and objectives of the Township Master Plan, in particular the Highlands Element of the Master Plan, while at the same time advancing the purposes of zoning as set forth in the New Jersey Municipal Land Use Law ("MLUL", N.J.S.A. 40:55D-1 et seq.), addressing the substantive goals and intents of the Highlands Water Protection and Planning Act ("Highlands Act," N.J.S.A. 13:20-1 et seq.), and satisfying the goals, requirements and provisions of the Highlands Regional Master Plan (RMP).

§ 1.3 SCOPE

The provisions of this Ordinance pertain to the use and development of all lands located within the Township Highlands Area. The Highlands Area comprises that portion of the municipality for which the applicable provisions of the Township Master Plan, land use ordinances and other pertinent regulations have been deemed by the New Jersey Highlands Water Protection and Planning Council ("Highlands Council") to be in conformance with the Highlands RMP. This Ordinance governs land uses, development and redevelopment activities, and management and protection of resources, including but not limited to water resources, natural resources, agricultural resources, [and] scenic resources[and *if applicable:* historic, cultural and archaeological resources][*Township will address "if applicable" language prior to adoption.*]. The provisions of this Ordinance shall apply in conjunction with all other applicable ordinances, rules and regulations of the municipality. In the event of conflicting or less restrictive alternate provisions, the provisions of this Ordinance shall supersede.

§ 1.4 STATUTORY AUTHORITY

This Ordinance is adopted under the authority of the MLUL and the Highlands Act. The Highlands Act provides authorities and responsibilities for municipal planning and development regulation that are complementary to those set forth under the MLUL. The MLUL gives authority to New Jersey municipalities to govern land use and development within their borders. The Highlands Act augments that authority to allow the municipality the power to enforce the goals, policies, objectives and programs of the Highlands RMP. The Highlands Act is designed to protect the natural and agricultural resources of the Highlands through a coordinated system of regional land use controls. The Highlands Act creates a system in which a regional plan is implemented primarily through local government units. The Highlands Act and the RMP together provide the regional perspective from which local decisions and actions will emanate.

§ 1.5 SEVERABILITY

If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, such holding shall in no way affect the validity of the ordinance as a whole, or of any other portion thereof.

§ 1.6 EFFECTIVE DATE

This Ordinance shall take effect after final passage and publication in the manner required by law.

ARTICLE 2. APPLICABILITY

§ 2.1 APPLICABILITY

The requirements of the Highlands Area Land Use Ordinance shall apply to the use and development of all lands located within the Township Highlands Area. Development review provisions shall apply in the case of any project for which a permit or approval from, or a determination by, the municipality is required, including any Application for Development as defined under the MLUL (see Definitions, § 3.2). The provisions of this Ordinance shall apply in conjunction with and as a supplement to the existing Zoning Ordinance, development regulations, and all other rules, codes and regulatory provisions governing the use and development of land in the municipality. In the event of conflicting provisions, the provisions of this Ordinance shall supersede. Where provisions differ only by degree, the more restrictive of the applicable requirements shall supersede.

§ 2.1.1 Exclusions

A. This Ordinance shall not apply to any improvement to a single-family dwelling in lawful existence as of the effective date of this Ordinance, provided that such improvement: a) is related and dedicated solely to the single-family residential use of either the dwelling or the property upon which it is situated; b) results in the ultimate disturbance of less than one (1) acre of land; and c) produces a cumulative impervious surface area of less than one-quarter (¼) acre; where the phrases "ultimate disturbance" and "cumulative impervious surface area" are defined as provided at § 3.2.

B. This Ordinance shall not apply to reconstruction, within the same footprint, of any building or other structure lawfully existing as of the effective date of this Ordinance, in the event of its destruction or partial destruction by fire, storm, natural disaster, or any other unintended circumstance.

C. This Ordinance shall not apply to the repair or maintenance of any building or other structure lawfully existing as of the effective date of this Ordinance. This exclusion shall not be construed to permit repairs or maintenance activities that alter the footprint of such building or structure.

D. This Ordinance shall not apply to the interior improvement, rehabilitation, or modification of any building or other structure lawfully existing as of the effective date of this Ordinance. This exclusion shall not be construed to permit activities that alter the footprint of such building or structure.

E. Unless specifically indicated otherwise, and in that case only to the specific extent indicated, the provisions of this Ordinance shall not apply to any change in use of a building or other structure lawfully existing as of the effective date of this Ordinance. This exclusion shall not be construed to permit activities that alter the footprint of such building or structure.

F. This Ordinance shall not apply to the attachment of signs or other ornamentation to any building or structure, to the installation of windows, doors, chimneys, vents, shafts, heating, ventilation, or air conditioning equipment, or to any other such improvement to a building or structure provided it occupies a surface area footprint of not more than 50 square feet. This exclusion shall not be construed to permit ultimate disturbance or cumulative impervious surface in excess of that provided at A., above, for single-family dwellings.

G. This Ordinance shall not apply to any improvement or alteration to a building or other structure lawfully existing as of the effective date of this Ordinance, where such improvement or alteration is

necessary for compliance with the provisions of the Americans with Disabilities Act, or to otherwise provide accessibility to the disabled.

H. Unless specifically indicated otherwise, and in that case only to the specific extent indicated, the provisions of this Ordinance shall not apply to any application for which a Highlands Preservation Area Approval (defined at § 3.2) has been issued by the New Jersey Department of Environmental Protection.

I. Unless specifically indicated otherwise, and in that case only to the specific extent indicated, the provisions of this Ordinance shall not apply to Agricultural or Horticultural Use and Development (as defined at § 3.2).

§ 2.2 MAJOR HIGHLANDS DEVELOPMENT

Any proposed project, development or activity that meets the definition of a Major Highlands Development (see Definitions, § 3.2) is subject to all applicable requirements and provisions of the New Jersey Department of Environmental Protection (NJDEP) Highlands Water Protection and Planning Act Rules ("NJDEP Preservation Area Rules," N.J.A.C. 7:38-1 et seq.). By definition, such projects, developments and activities pertain solely to the Preservation Area of the Highlands Region. Nothing in this Ordinance shall be construed to waive, obviate, modify or otherwise exempt any covered project, development or activity, or any person(s) proposing or involved in such initiatives, from the provisions of the NJDEP Preservation Area Rules.

§ 2.3 NON-MAJOR HIGHLANDS DEVELOPMENT

Non-Major Highlands Development constitutes any development not defined as a Major Highlands Development. Non-Major Highlands Development includes projects, development and activities in the Planning Area and in the Preservation Area. Any project, development or activity proposed within the Preservation Area or the Planning Area that does not meet the definition of a Major Highlands Development shall remain subject to the provisions of this Ordinance, as provided (with specified exclusions) pursuant to § 2.1 above.

§ 2.4 EXEMPTIONS

The activities, improvements and development projects listed below are herewith exempt from the provisions of this Ordinance, as specifically provided by the Highlands Act (at N.J.S.A. 13:20-28). These exemptions apply only to the specific activities, improvements and projects as described and listed herein, and with the exception of the exemption regarding federal military installations (no. 16), shall not be construed to apply across-the-board to any lot, tract or other division of land, whether existing or proposed at the time of passage of the Highlands Act. Neither shall such exemptions be construed to alter, obviate or waive the requirements of any other applicable state or local law, rule, regulation, development regulation or ordinance. This would include, for example, the bulk requirements of the municipal zoning ordinance (e.g., yard and area requirements), the rules and regulations applicable to issuance of building permits, or the requirements of any municipal ordinance regulating the operation and maintenance of on-site septic systems. Exemptions apply to both the Preservation Area and the Planning Area with the exception of exemption number 3 and number 17, which apply only to the Preservation Area.

1. The construction of a single family dwelling, for an individual's own use or the use of an immediate family member, on a lot owned by the individual on the date of enactment of the Highlands Act (August 10, 2004) or on a lot for which the individual entered into a binding contract of sale to purchase on or before May 17, 2004. (Note: the Highlands Act defines "an immediate family

member" as a "spouse, child, parent, sibling, aunt, uncle, niece, nephew, first cousin, grandparent, grandchild, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepparent, stepchild, stepbrother, stepsister, half brother, or half sister, whether the individual is related by blood, marriage, or adoption.")

2. The construction of a single family dwelling on a lot in existence on the date of enactment of the Highlands Act (August 10, 2004), provided that the construction does not result in the ultimate disturbance of one acre or more of land or a cumulative increase in impervious surface by one-quarter acre or more.

3. A Major Highlands Development that received, on or before March 29, 2004:

    a. One of the following approvals pursuant to the MLUL:

        i. Preliminary or final site plan approval;

        ii. Final municipal building or construction permit;

        iii. Minor subdivision approval where no subsequent site plan approval is required;

        iv. Final subdivision approval where no subsequent site plan approval is required; or

        v. Preliminary subdivision approval where no subsequent site plan approval is required; and

    b. At least one of the following permits from the NJDEP, if applicable to the proposed Major Highlands Development:

        i. A permit or certification pursuant to the "Water Supply Management Act," P.L.1981, c.262 (C.58:1A-1 et seq.);

        ii. A water extension permit or other approval or authorization pursuant to the "Safe Drinking Water Act," P.L.1977, c.224 (C.58:12A-1 et seq.);

        iii. A certification or other approval or authorization issued pursuant to the "The Realty Improvement Sewerage and Facilities Act (1954)," P.L.1954, c.199 (C.58:11-23 et seq.); or

        iv. A treatment works approval pursuant to the "Water Pollution Control Act," P.L.1977, c.74 (C.58:10A-1 et seq.); or

    c. One of the following permits from the NJDEP, if applicable to the proposed Major Highlands Development, and if the proposed Major Highlands Development does not require one of the permits listed in subparagraphs (i) through (iv) of subparagraph (b) of this paragraph:

        i. A permit or other approval or authorization issued pursuant to the "Freshwater Wetlands Protection Act," P.L.1987, c.156 (C.13:9B-1 et seq.); or

        ii. A permit or other approval or authorization issued pursuant to the "Flood Hazard Area Control Act," P.L.1962, c.19 (C.58:16A-50 et seq.).

The exemption provided in this paragraph shall apply only to the land area and the scope of the Major Highlands Development addressed by the qualifying approvals pursuant to subparagraphs (a) and (b), or (c) if applicable, of this paragraph; shall expire if any of those qualifying approvals expire; and shall be deemed to have expired if construction beyond site preparation did not commence within three years after the date of enactment of the Highlands Act (August 10, 2004).

4. The reconstruction of any building or structure for any reason within 125% of the footprint of the lawfully existing impervious surfaces on the site, provided that the reconstruction does not increase the lawfully existing impervious surface by one-quarter acre or more. This exemption shall not apply to the reconstruction of any agricultural or horticultural building or structure for a non-agricultural or non-horticultural use.

    a. For purposes of this Ordinance, this exemption shall not be construed to permit multiple 125% footprint expansions, but rather, to permit one or more reconstruction activities cumulatively resulting in a maximum 125% increase in the footprint of the impervious surfaces lawfully existing on the site, provided they do not cumulatively exceed the one-quarter acre limitation.

    b. For purposes of this Ordinance, the applicable date of lawful existence shall coincide with the date of enactment of the Highlands Act, or August 10, 2004.

    c. For purposes of this Ordinance, these provisions shall not be construed to exempt any change in use of such reconstructed building or structure from the applicable provisions of this Ordinance.

5. Any improvement to a single family dwelling in existence on the date of enactment of the Highlands Act (August 10, 2004), including but not limited to an addition, garage, shed, driveway, porch, deck, patio, swimming pool or septic system.

6. Any improvement, for non-residential purposes, to a place of worship owned by a nonprofit entity, society or association, or association organized primarily for religious purposes, or a public or private school, or a hospital, in existence on the date of enactment of the Highlands Act (August 10, 2004), including but not limited to new structures, an addition to an existing building or structure, a site improvement, or a sanitary facility.

7. An activity conducted in accordance with an approved woodland management plan pursuant to section 3 of the "Farmland Assessment Act," P.L.1964, c.48 (C.54:4-23.3) or the normal harvesting of forest products in accordance with a forest management plan approved by the State Forester.

8. The construction or extension of trails with non-impervious surfaces on publicly owned lands or on privately owned lands where a conservation or recreational use easement has been established.

9. The routine maintenance and operations, rehabilitation, preservation, reconstruction or repair of transportation or infrastructure systems by a state entity or local government unit, provided that the activity is consistent with the goals and purposes of the Highlands Act and does not result in the construction of any new through-capacity travel lanes.

10. The construction of transportation safety projects and bicycle and pedestrian facilities by a state entity or local government unit, provided that the activity does not result in the construction of any new through-capacity travel lanes.

11. The routine maintenance and operations, rehabilitation, preservation, reconstruction, repair or upgrade of public utility lines, rights of way, or systems, by a public utility, provided that the activity is consistent with the goals and purposes of the Highlands Act.

12. The reactivation of rail lines and rail beds existing on the date of enactment of the Highlands Act (August 10, 2004).

13. The construction of a public infrastructure project approved by public referendum prior to January 1, 2005 or a capital project approved by public referendum prior to January 1, 2005.

14. The mining, quarrying, or production of ready mix concrete, bituminous concrete, or Class B recycling materials occurring or which are permitted to occur on any mine, mine site, or construction materials facility existing on June 7, 2004.

15. The remediation of any contaminated site pursuant to P.L.1993, c.139 (C.58:10B-1 et seq.).

16. Any lands of a federal military installation existing on the date of enactment of the Highlands Act (August 10, 2004) that lie within the Highlands Region.

17. A Major Highlands Development located within an area designated as Planning Area 1 (Metropolitan), or Planning Area 2 (Suburban), as designated pursuant to the "State Development and Redevelopment Plan," P.L.1985, c.398 (C.52:18A-196 et seq.) as of March 29, 2004, that on or before March 29, 2004 was the subject of a settlement agreement and stipulation of dismissal filed in the Superior Court, or a builder's remedy issued by the Superior Court, to satisfy the constitutional requirement to provide for the fulfillment of the fair share obligation of the municipality. The exemption provided pursuant to this paragraph shall expire if construction beyond site preparation has not commenced within three years after receiving all final approvals required pursuant to the MLUL.

§ 2.5 EXEMPTION DETERMINATIONS

Any applicant seeking approval of a permit or development application involving any activity, improvement, or development project listed above as a Highlands Act Exemption, shall, as a condition of completeness where applicable, and in any case prior to review of such application by the applicable Board or other municipal authority, provide sufficient proofs, as set forth under § 9.1.2 of this Ordinance, that the proposed activity, improvement, or development project qualifies as a Highlands Act Exemption.

§ 2.6 PRIOR DEVELOPMENT APPROVALS

§ 2.6.1 Preservation Area

Any developer/owner/applicant (as applicable) associated with a development application that has received lawful approval(s) pursuant to the MLUL since the date of enactment of the Highlands Act (August 10, 2004) but prior to the effective date of this Ordinance, shall retain all of the rights and protections accorded and prescribed under the MLUL with regard to such approval(s). These protections shall apply to the specific land area and scope of the approvals granted, in accordance with any conditions attached thereto, subject to the approvals of any applicable state, county or other outside agency having jurisdiction thereon including the NJDEP and specifically, the NJDEP Preservation Area Rules (NJAC 7:38) applicable to the Highlands Preservation Area, and shall expire if (and in such event, when) such approval expires. The provisions of this Ordinance shall not be construed to alter or infringe upon such unexpired approvals, and any nonconforming development ultimately resulting from such approvals shall be permitted to continue in accordance with all

applicable MLUL provisions concerning nonconforming uses, buildings and structures (pursuant to § 2.7, below).

§ 2.6.2 **Planning Area**

Any developer/owner/applicant (as applicable) associated with a development application that has received lawful approval(s) pursuant to the MLUL prior to the effective date of this Ordinance, shall retain all of the rights and protections accorded and prescribed under the MLUL with regard to such approval(s). These protections shall apply to the specific land area and scope of the approvals granted, in accordance with any conditions attached thereto, subject to the approvals of any applicable state, county or other outside agency having jurisdiction thereon, and shall expire if (and in such event, when) such approval expires. The provisions of this Ordinance shall not be construed to alter or infringe upon such unexpired approvals, and any nonconforming development ultimately resulting from such approvals shall be permitted to continue in accordance with all applicable MLUL provisions concerning nonconforming uses, buildings and structures (pursuant to § 2.7, below).

§ 2.7 NONCONFORMING USES, BUILDINGS AND STRUCTURES

Any nonconforming use, building or structure lawfully existing at the time of passage of this Ordinance shall be permitted to continue upon the lot or within the structure it so occupies, and any such structure may be restored or repaired in the event of its partial destruction, in accordance with the provisions of the MLUL and the underlying municipal Zoning Ordinance. For purposes of this Ordinance, the words, "restored" and "repaired," shall in no case be construed to mean "expanded."

ARTICLE 3. DEFINITIONS

§ 3.1 WORD USAGE

Terms used in the body of this Ordinance which are defined by the Highlands Act are intended to have the same definitions as provided in the Highlands Act. Unless expressly stated to the contrary or alternately defined herein, terms which are defined by the MLUL are intended to have the same meaning as set forth in the MLUL. For purposes of this Ordinance, the terms "shall" and "must" are indicative of a mandatory action or requirement while the word "may" is permissive.

§ 3.2 DEFINITIONS

For purposes of this Ordinance the following definitions shall apply:

Agricultural or Horticultural Development – Construction for the purposes of supporting common farmsite activities, including but not limited to, the production, harvesting, storage, grading, packaging, processing, and the wholesale and retail marketing of crops, plants, animals, and other related commodities and the use and application of techniques and methods of soil preparation and management, fertilization, weed, disease, and pest control, disposal of farm waste, irrigation, drainage and water management, and grazing.

Agricultural or Horticultural Use – The use of land for common farmsite activities, including but not limited to, the production, harvesting, storage, grading, packaging, processing, and the wholesale and retail marketing of crops, plants, animals, and other related commodities and the use and application of techniques and methods of soil preparation and management, fertilization, weed, disease, and pest control, disposal of farm waste, irrigation, drainage and water management, and grazing.

Agricultural Impervious Cover – Agricultural or horticultural buildings, structures or facilities with or without flooring, residential buildings and paved areas, but not meaning temporary coverings.

Applicant – Any entity applying to the Board of Health, Planning Board, Zoning Board of Adjustment, Zoning Officer, Construction Official or other applicable authority of the municipality for permission or approval to engage in an activity that is regulated by the provisions of this Ordinance.

Application for Development – The application form and all accompanying documents required by ordinance for approval of a subdivision plat, site plan, planned development, conditional use, zoning variance, or direction of the issuance of a permits pursuant to section 25 or section 27 of P.L.1975, c.291 (C.40:55D-34 or C.40:55D-36).

Aquifer – A geologic formation, group of formations, or partial formation containing saturated permeable rock, sand or gravel sufficient to store and transmit usable quantities of water to wells and springs.

Archaeological Resources – Any material remains of past human life or activities which are of archaeological interest, such as tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, human skeletal materials, or any portion or piece of any of the foregoing items.

Best Management Practices (BMP) – Structural or nonstructural methods used to prevent or reduce the movement of sediment, nutrients, pesticides and other pollutants from the land to surface or ground water.

CADB – County Agriculture Development Board

Carbonate Rock – Rock consisting chiefly of calcium and magnesium carbonates, such as limestone and dolomite.

Clear-Cutting – A forestry or logging practice in which most or all of the trees in a harvest area are cut down.

Cluster/Conservation Design Development – A development design technique where principal buildings and structures are grouped together on a portion of the Cluster Project Area, while the remaining land area is permanently deed-restricted in agricultural use, for conservation of environmental resources, or as open space for environmental protection including public recreational use.

Cluster Project Area – All of the individual parcels from which development is clustered including the area set aside for preservation and the area set aside for development.

Community Based On-Site Wastewater Facilities – Sanitary sewerage treatment facilities (i.e., domestic treatment works) that discharge treated wastewater to ground waters as regulated by a NJPDES permit under N.J.A.C. 7:14, which provide service to one or more parcels that are approved and constructed as a single development or planned development.

Conditional Water Availability – The amount of water availability allowed in a deficit HUC14 subwatershed, subject to certain mitigation requirements, as determined by the Highlands Council.

Consumptive Water Use – Any use of water that results in its evaporation, transpiration, incorporation into products or crops, consumption by humans or animals, or removal by any other means from a watershed or subwatershed, other than by conveyances as untreated water supply, potable water, or wastewater.

Contaminant – A substance capable of causing contamination of a water supply.

Contamination – The presence of any harmful or deleterious substances in the water supply, including but not limited to hazardous substances, hazardous wastes, and substances listed in the New Jersey Administrative Code at N.J.A.C. 7:9C (Ground Water Quality Standards), N.J.A.C. 7:9B (Surface Water Quality Standards) and N.J.A.C. 7:10 (NJ Safe Drinking Water Act Regulations), and as these regulations may be amended from time to time.

Cultural Resources – Sites, artifacts, or materials that relate to the way people live or lived, for example, archaeological sites, rock carvings, ruins, and the like. These resources are generally defined based on existing documentation or artifacts discovered relating to activities of people who lived, worked, or recreated in an area during a period in history.

Current Deficit Area – A HUC14 subwatershed characterized by negative Net Water Availability, meaning that existing consumptive and depletive water uses exceed the capacity of the ground water supply to sustain them.

Deforestation – The conversion of forested areas to non-forested areas, whether for use as urban land, or any other non-forest land use; disturbance of an area characterized as "forest" pursuant to the procedures provided in APPENDIX A, herein, the extent or effect of which is to disqualify the area from such designation.

Depletive Water Use – Use of water whereby it is withdrawn from a HUC14 subwatershed and transported outside of the subwatershed (through utility conveyances as untreated water supply, potable water, or wastewater), resulting in a net loss of water to the subwatershed from which it originated.

Density – The permitted number of dwelling units per gross acre of land to be developed; or if defined by the underlying municipal Zoning Ordinance, as provided therein.

Density, Septic System – The gross acreage of land area required per individual septic system to physically contain and support its functions in keeping with the specified wastewater design flow.

Development – The division of a parcel of land into two or more parcels, the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any building or other structure, or of any mining excavation or landfill, and any use or change in the use of any building or other structure, or land or extension of use of land, for which permission may be required pursuant to the MLUL.

Development Set Aside of Cluster Project Area – All of the individual parcels within the area set aside for residential development including the infrastructure, open space, and utilities necessary to support the development.

Discharge – Any intentional or unintentional action or omission, unless pursuant to and in compliance with the conditions of a valid and effective federal or state permit, resulting in the releasing, spilling, pumping, pouring, emitting, emptying or dumping of a hazardous substance into the waters or lands of the state or into waters outside the jurisdiction of the state when damage may result to the lands, waters or natural resources within the jurisdiction of the state.

Dissolution – A space or cavity in or between rocks, formed by the solution of part of the rock material.

Disturbance – The placement of impervious surface, the exposure or movement of soil or bedrock, or the clearing, cutting, or removing of vegetation. (Pursuant to § 6.2.5.B of this Ordinance, when considering land for conversion to non-agricultural land uses in a Highlands Open Water buffer, historic or current agricultural land uses shall not be considered "land improvements," "development," "land disturbances," or "land uses" for purposes of calculating the previously disturbed area.)

Disturbance, Ultimate – The total existing or proposed area of disturbance of a lot, parcel, or other legally designated (or otherwise legally recognized) tract or subdivision of land, for the purpose of, and in connection with, any human activity, property improvement, or development, including the surface area of all buildings and structures, all impervious surfaces, and all associated land disturbances such as excavated, filled, and graded areas, and all lawn and landscape areas. Ultimate disturbance shall not include areas of prior land disturbance which at the time of evaluation: a) contain no known man-made structures (whether above or below the surface of the ground) other than such features as old stone rows or farm field fencing; and b) consist of exposed rock outcroppings, or areas which, through exposure to natural processes (such as weathering, erosion, siltation, deposition, fire, flood, growth of trees or other vegetation) are no longer impervious or visually obvious, or ecologically restored areas which will henceforth be preserved as natural areas under conservation restrictions.

Endangered Species – Species included on the list of endangered species that the NJDEP promulgates pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-13 et seq., and the Endangered Plant Species List Act, N.J.S.A. 13:1B-15.151 et seq., and any species or subspecies of wildlife appearing on any federal endangered species list or any species or subspecies of plant designated as listed, proposed, or under review by the federal government pursuant to the Endangered Species Act of 1973, 16 U.S.C. §§ 1531 et seq.

Existing Constrained Areas – Stream flows within any HUC14 subwatershed(s) upstream of a Current Deficit Area.

Farm Conservation Plan – A site-specific plan that prescribes needed land treatment and related conservation and natural resource management measures, including forest management practices, that are determined to be practical and reasonable for the conservation, protection, and development of natural resources, the maintenance and enhancement of agricultural or horticultural productivity, and the control and prevention of non-point source pollution.

Farm Management Unit – A parcel or parcels of land, whether contiguous or noncontiguous, together with agricultural or horticultural buildings, structures and facilities, producing agricultural or horticultural products, and operated as a single enterprise.

Farmland Soils, Important – Soils based on soil data prepared by the USDA NRCS including the following four classifications: Prime Farmland Soils, Farmland Soils of Statewide Importance, Unique Farmland Soils, and Farmland Soils of Local Importance.

Farmland Soils of Local Importance – Farmland of local importance includes those soils that are not prime or of statewide importance and are used for the production of high value food, fiber or horticultural crops.

Farmland Soils, Prime – Prime Farmlands include all those soils in NRCS Land Capability Class I and selected soils from Land Capability Class II. Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops and is also available for these uses. It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed according to acceptable farming methods, Prime Farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.

Farmland Soils of Statewide Importance – Farmlands of statewide importance include those soils in NRCS Land Capability Class II and III that do not meet the criteria as Prime Farmland. These soils are nearly Prime Farmland and economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce yields as high as Prime Farmland if conditions are favorable.

Farmland Soils, Unique – Soils used for special crops (such as cranberries in the New Jersey Pinelands). Unique soils are determined on a statewide basis by the State Soil Conservation Committee.

Farmsite – A Farm Management Unit as defined above.

Floor Area – The area of each floor of a building lying within the inside perimeter of its exterior walls excluding vent shafts, courts, and unfinished areas such as basements or attics having ceiling heights less than that required for habitable space under the building code.

Floor Area Ratio – The sum of the area of all floors of buildings or structures compared to the total area of the site; or if defined by the underlying Zoning Ordinance, as provided therein.

Forest – A biological community as determined by the method set forth under APPENDIX A, as adapted from NJDEP Preservation Area Rules, at N.J.A.C. 7:38-3.9.

Forest Area, Upland – A biological community that is a "forest," as defined above, and that is not located in an area designated as Highlands Open Waters (i.e., not a forested wetland or other Highlands Open Waters).

Forest Area, Total – The percentage of total area that is covered in forest.

Forest, Core – The area and percent of a forest patch that is greater than 300 feet from a forest edge.

Forest Integrity – An expression of the application of landscape metrics to evaluate the effects of forest fragmentation across the landscape, thereby recognizing the ability of forests to provide essential ecosystem functions.

Forest Patch – A contiguous tract of forest bordered by either altered land or a road.

Forest Patch, Mean Distance to Closest (MDCP) – The average edge-to-edge distance between distinct forest patches located within a 1,000-foot search radius of one another. The MDCP provides a measure of forest patch isolation within the landscape area of interest.

Forest Management Plan – A written guidance document describing the forest resources present on a property, the landowner's management goals and objectives, and the recommended practices or activities to be carried out over time on the land. This tool is used to evaluate a forest land's current state and provide a management process which, over time, meets the landowner's objectives, while maintaining health and vigor of the resource. Forest Management Plans are typically written for a ten year period.

Ground Water – Water contained in the interconnected voids of a saturated zone in the ground. A saturated zone is a volume of ground in which the voids in the rock or soil are filled with water greater than or equal to atmospheric pressure.

Ground Water Availability – The total amount of water assigned by the Highlands Council to a HUC14 subwatershed that can be used for consumptive and depletive water uses by water uses that do not draw from water supplies with a NJDEP-approved safe yield.

Habitat Value – The value of an ecosystem area for maintenance of a healthy population of a species as determined by quantity, quality, type, and function.

Hazardous Substance – Any substance designated under 40 CFR 116 pursuant to Section 311 of the Federal Water Pollution Control Act Amendments of 1972 [Clean Water Act] (Public Law 92-500; 33 U.S.C. 1251 et seq.), the Spill Compensation and Control Act, N.J.S.A. 58:10-23.ll et seq., or Section 4 of the New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and as these regulations may, from time to time, be amended. Substances listed include petroleum, petroleum products, pesticides, solvents and other substances.

Hazardous Waste – Any solid waste that is defined or identified as a hazardous waste pursuant to the Solid Waste Management Act, N.J.S.A. 13:1E et seq., N.J.A.C. 7:26-8, or 40 CFR Part 261.

Highlands Applicability Determination – The determination made by the NJDEP of whether a project proposed for the Preservation Area is a major Highlands development, whether any such major Highlands development is exempt from the Highlands Act, and whether the project is consistent with the applicable Areawide Water Quality Management Plan.

Highlands Area – That portion of the municipality for which the land use planning and regulation are in conformance with, or are intended or proposed to be in conformance with, the Highlands RMP.

Highlands Historic and Cultural Resource Inventory – The listing of historic, cultural and archaeological resources within the Highlands Region, including but not limited to: all properties listed on the New Jersey or National Register of Historic Places; all properties which have been deemed eligible for listing on the New Jersey or National Register of Historic Places; and all properties for which a formal opinion of the State Historic Preservation Office (SHPO) has been issued.

Highlands Open Waters – All springs, streams including intermittent streams, wetlands, and bodies of surface water, whether natural or artificial, located wholly or partially within the boundaries of the Highlands Region, but not including swimming pools. Highlands Open Waters include seeps, lakes, ponds, and vernal pools; all categories (including springs, streams, and wetlands) as described and defined in the Township Environmental Resource Inventory.

Highlands Open Waters Buffer – In the Preservation Area, a 300-foot buffer adjacent to Highlands Open Waters in which no disturbance is permitted, except as provided in N.J.A.C 7:38-3.6. In the Planning Area, a 300-foot buffer around all Highlands Open Waters from the edge of the discernible bank of the Highlands Open Waters feature, or from the centerline of that feature where no discernible bank exists. With respect to wetlands and other Highlands Open Waters features, the feature shall include a protection buffer of 300 feet, measured from the mapped wetlands (not from the wetlands buffer) delineated in a Letter of Interpretation or Highlands Resource Area Determination, as applicable, as provided by NJDEP.

Highlands Preservation Area Approval (HPAA) – A permit to engage in a regulated activity in the Highlands Preservation Area issued by the NJDEP pursuant to the Highlands Act and the NJDEP Highlands Water Protection and Planning Act Rules (N.J.A.C. 7:38), including an HPAA that contains a waiver pursuant to N.J.S.A. 13:20-33b. Highlands Preservation Area Approval includes Highlands general permits issued pursuant to N.J.S.A. 13:20-33d and promulgated at N.J.A.C. 7:38-12. HPAA, when used in this Ordinance, includes Highlands general permits unless explicitly excluded.

Highlands Public Community Water Supply System – Public water supply systems in the Highlands Region that pipe water for human consumption to at least 15 service connections or that regularly serve at least 25 year-round residents.

Highlands Redevelopment Area – A property, portion of a property, or group of properties designated as such by the Highlands Council and which includes one or more of the following: a) a brownfield site; b) a grayfield site; and c) any previously developed site in the Highlands Region. A Highlands Redevelopment Area may include the intervening or surrounding lands which are significantly affected by or necessary to support such sites, and is subject to a Highlands Council-approved redevelopment plan setting forth the scope and details of any redevelopment project(s) and/or activities permitted to occur.

Highlands Resource Area Determination (HRAD) – A formal determination issued by the NJDEP that confirms the presence or absence of a Highlands Resource Area on a site, and if present, its location and applicable boundary lines. A person may apply for an HRAD only, or in connection with an application for an HPAA.

Highlands Scenic Resource Inventory – The inventory of regionally significant lands within the Highlands Region that encompasses elements of high scenic quality worthy of protection, as approved by the Highlands Council.

Historic District – One or more historic sites and intervening or surrounding property significantly affecting or affected by the quality and character of the historic site or sites.

Historic Resources – Buildings, structures, objects, districts, sites, or areas that are significant in the history, architecture, archaeology, engineering or culture of a place or time.

Historic Site – Any real property, man-made structure, natural object or configuration of any portion or group of the foregoing of historical, archaeological, cultural, scenic, or architectural significance.

HUC – Hydrologic Unit Code; identification number developed by the USGS to designate drainage basins including watersheds and subwatersheds.

HUC14 Subwatershed – A delineated subwatershed area identified by a 14-digit HUC, within which water drains to a particular receiving surface water body.

Impervious Surface – Any structure, surface, or improvement that reduces or prevents absorption of stormwater into land, including, but not limited to, porous paving, paver blocks, gravel, crushed stone, decks, patios, elevated structures, and other similar structures, surfaces, or improvements.

Impervious Surfaces, Cumulative – The total area of all existing or proposed impervious surfaces situated or proposed to be situated within the boundary lines of a lot, parcel, or other legally recognized subdivision of land, expressed either as a measure of land area such as acreage, or square feet, or as a percentage of the total lot or parcel area.

Individual Subsurface Sewage Disposal System – A system regulated under N.J.A.C. 7:9A for disposal of sanitary sewage into the ground which is designed and constructed to treat sanitary sewage in a manner that will retain most of the settleable solids in a septic tank and to discharge the liquid effluent to a disposal field, disposal bed, or disposal trench or trenches. The term "septic system" is equivalent in meaning.

Karst – A distinctive topography that indicates solution of underlying carbonate rocks (such as limestone and dolomite) by surface water or ground water over time, often producing surface depressions, sinkholes, sinking streams, enlarged bedrock fractures, caves, and underground streams.

Light Detection and Ranging (LiDAR) – Technology that uses an active sensor, similar to radar that transmits laser pulses to a target and records the time it takes for the pulse to return to the sensor receiver. This technology is used for high-resolution topographic mapping.

Linear Development – Infrastructure, utilities and the associated right-of-ways therefor, including but not limited to such installations as railroads, roads, sewerage and water supply pipelines, stormwater management pipes and channels, natural gas and liquid fuel pipelines, electric, telephone and other transmission lines, and in all cases, the associated right-of-ways therefor.

Low Impact Development – An environmentally sensitive approach to land use planning that uses a variety of landscape and design techniques to manage development activities to mitigate potential adverse impacts on the natural environment.

Major Highlands Development – Except as otherwise provided pursuant to subsection a. of section 30 of the Highlands Act ("Exemptions"): (1) any non-residential development in the Preservation Area; (2) any residential development in the Preservation Area that requires an environmental land use or water permit from the NJDEP or that results in the ultimate disturbance of one acre or more of land or a

cumulative increase in impervious surface by one-quarter acre or more; (3) any activity undertaken or engaged in the Preservation Area that is not a development but results in the ultimate disturbance of one-quarter acre or more of forested area or that results in a cumulative increase in impervious surface by one-quarter acre or more on a lot; or (4) any capital or other project of a state entity or local government unit in the Preservation Area that requires an environmental land use or water permit from the NJDEP or that results in the ultimate disturbance of one acre or more of land or a cumulative increase in impervious surface by one-quarter acre or more. Major Highlands Development shall not include any agricultural or horticultural development or agricultural or horticultural use. Solar panels shall not be included in any calculation of impervious surface. (As defined by the Highlands Act, N.J.S.A. 13:20-1 et seq., as amended.)

Major Potential Contaminant Sources (PCS) – Land uses and activities determined by the Highlands Council to pose a major risk of ground water contamination (see APPENDIX B).

Master Plan – For purposes of this Ordinance, all references to the "Township Master Plan," "master plan," or "Master Plan," refer to the municipal master plan, as adopted by the Township Planning Board.

Master Plan, Highlands Regional (RMP) – For purposes of this Ordinance, all references to the Highlands Regional Master Plan (RMP), shall be by use of the words "Highlands Regional Master Plan," "Highlands RMP," "Regional Master Plan," or "RMP."

Minor Potential Contaminant Sources (PCS) – Land uses and activities determined by the Highlands Council to pose a minor risk of ground water contamination (see APPENDIX C).

Municipal Land Use Law (MLUL) – The New Jersey Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq.

NJDA – New Jersey Department of Agriculture

NJDA Agricultural Development in the Highlands Rules – The regulations established by the NJDA to implement requirements of the Highlands Act, titled and codified at N.J.A.C. 2:92.

NJDEP – New Jersey Department of Environmental Protection

NJDEP Preservation Area Rules – The regulations established by the NJDEP to implement requirements of the Highlands Act, titled "Highlands Water Protection and Planning Act Rules," and codified at N.J.A.C. 7:38-1 et seq.

NJDOT – New Jersey Department of Transportation

NJPDES – New Jersey Pollutant Discharge Elimination System

NJPDES Permit – A permit issued by the NJDEP authorizing certain discharges to ground or surface waters of the State of New Jersey pursuant to the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., as amended, and its implementing rules at N.J.A.C. 7:14A.

NJ Soil Erosion and Sediment Control Act Rules – Regulations adopted by the State Soil Conservation Committee at N.J.A.C. 2:90-1, incorporating requirements for Best Management Practices regarding temporary and permanent soil erosion control.

Nonconforming Lot – Any lot having an area, dimension or location which was lawful prior to the adoption, revision or amendment of a zoning ordinance, but which fails to conform to the requirements of the zoning district in which it is located by reason of such adoption, revision or amendment.

Nonconforming Structure – Any structure having a size, dimension or location which was lawful prior to the adoption, revision or amendment of a zoning ordinance, but which fails to conform to the requirements of the zoning district in which it is located by reason of such adoption, revision or amendment.

Nonconforming Use – A use or activity which was lawful prior to the adoption, revision or amendment of a municipal zoning ordinance, but which fails to conform to the requirements of the zoning district in which it is located by reason of such adoption, revision or amendment.

Non-Public Well – Any water supply well used for potable purposes other than a public community or non-community water supply well.

Non-Structural Stormwater Management – Techniques and practices devised to manage stormwater runoff and reduce pollution levels, without extensive construction efforts. Non-structural management strategies often mimic the natural hydrology of a site and utilize site planning and design to accomplish stormwater control.

NRCS – Natural Resources Conservation Service of the United States Department of Agriculture

Operations and Contingency Plan – A management plan prepared in support of an existing or proposed Major or Minor Potential Contaminant Source (PCS), that: a) documents the specific PCS(s) existing or proposed for a particular site; b) describes the types and quantities of substances and/or wastes expected to be used, discharged or stored on the site; c) indicates the means by which spillage, leakage or discharge of such materials will be prevented; d) provides the means or methods to be used to contain or remedy any accidental spill, leak, discharge or migration of such materials from the site directly or indirectly into ground water, surface water bodies, or the land surfaces that provide recharge to the underlying aquifer; e) indicates the procedures to be undertaken to notify the appropriate administrative authorities, including but not limited to the NJDEP and the Board of Health, regarding any accidental spillage or discharge of such materials; and f) demonstrates that best management practices have been incorporated into the design and management of both the site and the particular PCS(s) it contains to ensure against such discharges.

Person – Any individual, public or private corporation, company, partnership, firm, association, owner or operator, political subdivision of this State, and any state, federal or interstate agency or an agent or employee thereof.

Planning Area – Lands within the Highlands Region that are not located in that portion designated by the Highlands Act as the "Preservation Area" (see metes and bounds description at N.J.S.A. 13:20-7b). For purposes of this Ordinance, this terminology shall also be used to refer to Planning Area lands located solely within the Township.

Potential Contaminant Source (PCS) – Activity or land use that may be a source of a contaminant that has the potential to move into ground water withdrawn from a well.

Preservation Area – Lands within the Highlands Region that are located in that portion designated by the Highlands Act as the "Preservation Area" (see metes and bounds description at N.J.S.A. 13:20-7b). For

purposes of this Ordinance, this terminology shall also be used to refer to Preservation Area lands located solely within the Township.

Preservation Set Aside of Cluster Project Area – All of the individual parcels within the area set aside for preservation that must be deed-restricted against further subdivision.

Public Community Water System – A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year round residents.

Public Community Well – A well that provides water to a public water system serving at least 15 service connections used by year-round residents or regularly serving at least 25 year-round residents.

Public Non-Community Water System – A public water system that is not a public community water system and is either a "public non-transient non-community water system" or a "public transient non-community water system" as defined herein.

Public Non-Community Well – A well that is not a public community well and that provides water to a public water system regularly serving at least 25 individuals for at least 60 days in any given calendar year.

Public Non-Transient Non-Community Water System – A public water system that is not a public community water system and that regularly serves at least 25 of the same persons for more than six months in any given calendar year.

Public Transient Non-Community Water System – A public water system that is not a public community or a public non-transient non-community water system and that serves at least 25 transient individuals for at least 60 days in any given calendar year.

Public Water System – A system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves at least 25 individuals daily for at least 60 days out of the year. Such term includes any collection, treatment, storage and distribution facilities under control of the operator of such system and used primarily in connection with such system, and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. A public water system is either a "public community water system" or a "public non-community water system" as defined herein.

Rare Species – Wildlife species that are not endangered or threatened wildlife species but are considered by the NJDEP to be species of special concern as determined by a panel of experts, or that are ranked S1 (critically imperiled in New Jersey because of extreme rarity), S2 (imperiled in New Jersey because of rarity), S3 (rare in New Jersey), G1(critically imperiled globally), G2 (imperiled globally because of rarity) or G3 (globally very rare and local throughout its range or found locally in a restricted range) in the Natural Heritage Database, and Plant Species of Concern listed pursuant to N.J.A.C. 7:5C-3.1.

Reforestation – The restoration (replanting) of a forest that has been reduced by fire, cutting, or any other cause.

Resource Management System Plan – A site-specific conservation system plan that: (1) prescribes needed land treatment and related conservation and natural resource management measures, including forest management practices, for the conservation, protection, and development of natural resources, the maintenance and enhancement of agricultural and horticultural productivity, and the control and prevention of non-point source pollution; and (2) establishes criteria for resources sustainability of soil, water, air, plants, and animals.

Reviewing Board – The municipal Planning Board or Zoning Board of Adjustment, as applicable, established pursuant to N.J.S.A. 40:55D-23 or N.J.S.A. 40:55D-69 respectively, or any committee formally designated and authorized to act on behalf of such Board pursuant to other provisions of the MLUL (e.g., Minor Subdivision Committee of a Planning Board).

Riparian Area – Areas adjacent to and hydrologically interconnected with Highlands Open Waters rivers and streams consisting of flood prone areas, wetlands, soils that are hydric, alluvial, or have a shallow depth to ground water, and including wildlife passage corridors within 300 feet of surface Highlands Open Waters features.

Riparian Area, Flood Prone Portion – Areas delineated by the Highlands Council based on NJDEP flood prone and FEMA Q3 flood area mapping (NJDEP 1996, FEMA 1996) including USGS documented (by prior flood events) and undocumented flood prone areas and Federal Emergency Management Agency (FEMA) 100-year floodplain.

Riparian Soils – Soils associated with Highlands Open Waters that are hydric, alluvial, or exhibit a shallow depth to seasonal high water table.

Riparian Area Wildlife Corridor – A 300-foot corridor on each mapped stream bank or from the stream centerline if no stream bank is mapped.

Riparian Area Integrity Score – The value (High, Moderate, Low) of Highlands Riparian Areas within each Highlands HUC14 subwatershed as established by the Highlands Council through an analysis of the relative amount of impervious cover, agricultural land use, density of roadway stream-crossings, vegetative condition, and habitat for wetland/water-dependent, threatened, and endangered wildlife species of the Riparian Areas (see Township Environmental Resource Inventory).

SADC – State Agriculture Development Committee

SCD – Soil Conservation District, as established in accordance with the Soil Conservation Act, N.J.S.A. 4:24-1 et seq.

Scenic Resources – Sites and landscapes that are distinctive and remarkable for their geology, topography, history, culture, and aesthetics or can be representative of the defining character of a community. They may include prominent ridgelines, mountainsides or hillsides, panoramic vistas, community gateways and landmarks, river valleys, and agricultural landscapes.

Sedimentation – The process of deposition of a solid material from a state of suspension or solution in a fluid (usually air or water).

Septic System – A system regulated by N.J.A.C. 7:9A for disposal of sanitary sewage into the ground which is designed and constructed to treat sanitary sewage in a manner that will retain most of the settleable solids in a septic tank and to discharge the liquid effluent to a disposal field, disposal bed, or disposal trench or trenches. The term "Individual Subsurface Sewage Disposal System" is equivalent in meaning.

Sewer Service Area (SSA) – The land area identified in an Areawide Water Quality Management Plan from which generated wastewater is designated to flow to a domestic treatment works or industrial treatment works. A distinct sewer service area is established for each domestic treatment works and industrial treatment works.

Shoreline – The Ordinary High Water Mark, or point on the bank or shore up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation, or other easily recognized characteristic.

SIC – Standard Industrial Classification

Site Disturbance – The placement of impervious surface, the exposure or movement of soil or bedrock, or the clearing, cutting, or removing of vegetation.

Slope (or "Grade") – An area of land forming an incline; a measure used to describe the degree of inclination of an area of land; the difference in vertical elevation ("rise") of a land area occurring over a specified horizontal distance ("run"). For example, a land area having a one (1)-foot vertical rise over a 10-foot horizontal run, has a slope of 10%. A 10-foot vertical rise over a 25-foot horizontal run indicates a slope of 40%.

Slope, Steep – Any slope having a grade of 15% or more, or if situated in a Riparian Area, of 10% or more.

Slopes, Constrained – All non-Riparian Area lands having a slope of 15% to less than 20% which are non-forested and exhibit one or more of the following characteristics: a) highly susceptible to erosion; b) shallow depth to bedrock; or c) a Soil Capability Class indicative of wet or stony soils.

Slopes, Limited Constrained – All non-Riparian Area lands having a slope of 15% to less than 20%, which are non-forested, are not highly susceptible to erosion, and do not have a shallow depth to bedrock or a Soil Capability Class indicative of wet or stony soils.

Slopes, Moderately Constrained – All forested non-Riparian Area lands having a slope of 15% to less than 20%.

Slopes, Severely Constrained – All lands having slopes of 20% or greater and all lands within Riparian Areas having slopes of 10% and greater.

Soil Capability Class – Soil class designated by the United States Department of Agriculture (USDA) "Soil Survey," available from the Natural Resource Conservation Service and containing descriptions of soil series on a county-by-county basis (available online at www.soildatamart.nrcs.usda.gov).

Solar Panel – An elevated panel or plate, or a canopy or array thereof, that captures and converts solar radiation to produce power, and includes flat plate, focusing solar collectors, or photovoltaic solar cells and excludes the base or foundation of the panel, plate, canopy, or array. (As defined by the Highlands Act, N.J.S.A. 13:20-1 et seq., as amended.)

Species of Special Concern – Wildlife species identified by the NJDEP that warrant special attention because of evidence of population decline or inherent vulnerability to environmental deterioration or habitat modification that would result in the species becoming threatened if conditions surrounding the species begin or continue to deteriorate. The term includes species for which there is little knowledge of current population status in the state.

Stormwater Management Rules – NJDEP rules at N.J.A.C. 7:8 that set forth the required components of regional and municipal stormwater management plans, and establish the stormwater management design and performance standards for new (proposed) development.

Structure – A combination of materials to form a construction for occupancy, use or ornamentation whether installed on, above, or below the surface of a parcel of land.

Subsidence Sinkholes – Sinkholes formed by the downward settlement of unconsolidated overburden into openings in underlying, soluble bedrock.

Surface Water – Any waters of the State of New Jersey which are not ground water.

Sustainable Agriculture – An integrated system of plant and animal production practices having a site-specific application that will over the long-term: (a) satisfy human food and fiber needs; (b) enhance environmental quality and the natural resource base upon which the agricultural economy depends; (c) make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles, and controls; (d) sustain the economic viability of farm operations; and (e) enhance the quality of life for farmers and society as a whole (1990 Farm Bill).

Technical Service Provider (TSP) – Professionals from outside of the United States Department of Agriculture that are certified by the NRCS to assist agricultural producers in applying conservation measures.

Threatened Species – An indigenous nongame wildlife species of New Jersey designated pursuant to the Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-13 et. seq., and its implementing rules, N.J.A.C. 7:25-4.17, as most recently amended.

Time of Travel – The average time that a volume of water will take to travel through the zone of saturation from a given point to a pumping well.

Total Maximum Daily Load (TMDL) – The pollutant loading that a surface water body may assimilate without violating NJDEP Surface Water Quality Standards (N.J.A.C. 7:9B) and a determination of the extent to which pollutant loadings to a water body must be reduced to restore that water body to a water quality that complies with the Surface Water Quality Standards. A TMDL includes an allocation of allowable pollutant loads to specific point sources (Wasteload Allocations) and categories of non-point sources (Load Allocations), after subtraction of a Margin of Safety and, where appropriate, a Reserve Capacity (for future pollutant loads).

Viewshed – An area of land, water or other physical features visible from a fixed vantage point.

Wastewater Utility – A publicly, privately, or investor-owned utility that collects and may treat sanitary wastewater, as regulated by the NJDEP.

Water Availability, Conditional – The amount of water availability allowed in a deficit HUC14 subwatershed, subject to certain mitigation requirements, as determined by the Highlands Council.

Water Availability, Net – The value assigned by the Highlands Council to a HUC14 subwatershed resulting from subtracting consumptive and depletive surface and ground water uses from ground water availability.

Water Conservation – Implementation of BMPs to ensure maximum water use efficiency and reduction in water use and losses; measures may include low impact development techniques, water conserving fixtures, water valves, beneficial re-use systems and capture of stormwater.

Water Dependent Uses – Any use or activity that cannot physically function without direct access to the body of water along which it is proposed. An activity that can function on a site not adjacent to the water is not considered water dependent regardless of the economic advantages that may be gained from a waterfront location.

Water Quality Management Plan (WQMP) – A plan prepared pursuant to sections 208 and 303 of the Federal Clean Water Act, 33 U.S.C. § 1251 et seq., (33 U.S.C. § 1288 et seq. and 1313 respectively) and the Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., including the Statewide WQMP, or Areawide or County WQMP as defined under N.J.A.C. 7:15.

Water Use and Conservation Management Plan – A planning document approved by the Highlands Council to ensure the sound use and management of water resources. Water Use and Conservation Management Plans document the current state of water availability and use in the subwatersheds of interest, set priorities for the use and protection of available water, and establish methods to reduce and, where feasible, eliminate net water availability deficits where they exist.

Wellhead – The well, borehole, and appurtenant equipment for a public community well, public non-community well, or non-public well within a cluster of non-public wells.

WHPA – Wellhead Protection Area

Zone of Saturation – A layer within or below the soil profile which is saturated with ground water either seasonally or throughout the year.

ARTICLE 4. ESTABLISHMENT OF HIGHLANDS AREA DISTRICTS

§ 4.1 HIGHLANDS PRESERVATION AREA AND PLANNING AREA

The Highlands Act establishes the Preservation Area and Planning Area of the Highlands Region. It describes the varied attributes of each and sets forth the major land use planning goals that pertain to the lands located within each. The Act defines the geographic extent of the Highlands Region to include the aggregated land area making up its constituent municipalities (N.J.S.A. 13:20-7a). It provides a physical delineation of the Preservation Area by use of a specific metes and bounds description (N.J.S.A. 13:20-7b), designating all remaining lands within the Highlands Region as the Planning Area.

§ 4.1.1 **Highlands Area**

The Township Master Plan incorporates the Highlands Preservation Area and Planning Area, inclusive of the goals applicable to each, as an integral component of the planning and land use policies of the municipality. For purposes of this Ordinance, these Areas shall henceforth be known and designated as the Township Highlands Area.

§ 4.1.2 **Preservation Area**

The Preservation Area, to the full extent of its limits within the Township Highlands Area, is herewith adopted and established as an overlay to municipal zoning.

§ 4.1.3 **Planning Area**

The Planning Area, to the full extent of its limits within the Township Highlands Area, is herewith adopted and established as an overlay to municipal zoning.

§ 4.2 HIGHLANDS ZONES AND SUB-ZONES

The Highlands RMP establishes two primary zones (the Protection Zone and Existing Community Zone) and three sub-zones (Wildlife Management Sub-Zone, Existing Community Zone–Environmentally Constrained Sub-Zone and Lake Community Sub-Zone) within Rockaway Township, each with its own purpose, application and development criteria. Delineation of Highlands Zones finds basis in the underlying natural resources, the extent of existing development and supporting infrastructure, and the potential to support new development and redevelopment. Highlands Zones are intended to ensure that the density and intensity of future development and redevelopment do not exceed the capacity of the land, natural resources and existing infrastructure to support them. The Township Master Plan incorporates the Highlands zones and sub-zones as an integral component of the planning and land use policies of the municipality.

In keeping with the Land Use Plan of the Township Master Plan, the following Highlands Zones and Sub-Zones are herewith established as overlays to existing municipal zoning:

§ 4.2.1 **Protection Zone**

The Protection Zone contains the highest quality natural resource value lands of the Highlands Area. Lands in the Protection Zone are essential to maintaining water quality, water quantity and sensitive ecological resources and processes and have limited or no capacity to support human development without adversely affecting overall ecological function. Land acquisition is a high priority for lands in the Protection Zone and development activities will be extremely limited. Any development will be subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands and natural resources.

§ 4.2.2 **Wildlife Management Sub-Zone**

The Wildlife Management Sub-Zone, a sub-zone of the Protection Zone, consists of areas managed by the United States Fish and Wildlife Service as part of the National Wildlife Refuge System, and lands within the Wildlife Management Area System administered by the NJDEP Division of Fish & Wildlife's Bureau of Land Management. These areas are part of a network of lands and waters for conservation, management, and where appropriate, restoration of fish, wildlife and plant resources and their habitats. Lands within the Wildlife Management Sub-Zone are intended for compatible wildlife-dependent recreational uses such as hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

§ 4.2.3 **[*Reserved*]**

§ 4.2.4 **[*Reserved*]**

§ 4.2.5 **Existing Community Zone**

The Existing Community Zone consists of areas of concentrated development representing existing communities. These areas tend to have limited environmental constraints due to previous development patterns, and may have existing infrastructure that can support additional development or redevelopment. Where served by adequate supporting infrastructure, lands within the Existing Community Zone are suited to higher densities and intensities of development than other Zones.

§ 4.2.6 **Existing Community Zone – Environmentally Constrained Sub-Zone**

The Existing Community Zone–Environmentally Constrained Sub-Zone consists of significant contiguous Critical Habitat, steep slopes and forested lands within the Existing Community Zone that should be protected from further fragmentation. They serve as regional habitat "stepping stones" to larger contiguous Critical Habitat and forested areas. As such, they are not appropriate for significant development, and are best served by land preservation and protection. Development is subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands.

§ 4.2.7 **Lake Community Sub-Zone**

The Lake Community Sub-Zone consists of that portion of the Existing Community Zone that lies within 1,000 feet of all lakes of 10 acres or more in surface area. The purpose for the sub-zone is to protect and enhance water quality, resource features, shoreline recreation, scenic quality, and community character. This sub-zone incorporates unique regulatory requirements to prevent degradation of water quality, harm to lake ecosystems, and watershed pollution, while promoting natural aesthetic values within the Existing Community Zone.

§ 4.3 HIGHLANDS RESOURCE AND SPECIAL PROTECTION AREAS

The Highlands RMP establishes Highlands Resource Areas and Special Protection Areas, each delineated based on the existence of one or more significant Highlands resources or critical or sensitive environmental characteristics or features. The Township Master Plan incorporates each of these areas to the extent of their physical limits within the Highlands Area, and the specific policies, goals and objectives relating to their protection as an integral component of the planning and land use policies of the municipality. In keeping with the Township Master Plan, the following Highlands Resource Areas and Special Protection Areas are herewith established as overlays to municipal zoning:

§ 4.3.1 **Forest Resource Area**

The Forest Resource Area contains high ecological value forest areas including forested areas having the least fragmentation which are vital to the maintenance of ecological processes. The Forest Resource Area includes forested areas characterized by one or more of the following forest integrity indicators: a contiguous forest

patch of 500 acres or more; an area consisting of 250 contiguous acres or more of Core Forest; or areas accounting for 45% or more of mean total forest cover.

§ 4.3.2 **Highlands Open Waters**

Highlands Open Waters consist of all springs, streams including intermittent streams, wetlands, and bodies of surface water, whether natural or artificial, located wholly or partially within the boundaries of the Highlands Region, but not including swimming pools. Highlands Open Waters include seeps, lakes, ponds, and vernal pools, all categories (including springs, streams, and wetlands) as described and defined in the Township Environmental Resource Inventory.

§ 4.3.3 **Riparian Areas**

Riparian Areas are areas adjacent to and hydrologically interconnected with Highlands Open Waters rivers and streams. They consist of flood prone areas, wetlands, soils that are hydric, alluvial, or have a shallow depth to ground water. Riparian Areas also include wildlife passage corridors within 300 feet of surface Highlands Open Waters features.

§ 4.3.4 **Steep Slope Protection Area**

The Steep Slope Protection Area is comprised of those portions of the Highlands Area encompassing a minimum of 5,000 square feet of contiguous area, which are characterized either by grades of 15% or greater, or, if in a Riparian Area, 10% or greater. The Steep Slope Protection Area includes the following sub-classifications:

A. ***Severely Constrained Slopes.*** All lands having slopes of 20% or greater and lands within Riparian Areas having slopes of 10% and greater.

B. ***Moderately Constrained Slopes.*** All forested non-Riparian Area lands having a slope of 15% to less than 20%.

C. ***Constrained Slopes.*** All non-forested, non-Riparian Area lands having a slope of 15% to less than 20% and exhibiting one or more of the following characteristics: a) highly susceptible to erosion; b) shallow depth to bedrock; or c) a Soil Capability Class indicative of wet or stony soils.

D. ***Limited Constrained Slopes.*** All non-forested, non-Riparian Area lands having a slope of 15% to less than 20%, which are not highly susceptible to erosion, and do not have a shallow depth to bedrock or a Soil Capability Class indicative of wet or stony soils.

§ 4.3.5 **Critical Habitat**

Critical Habitat is comprised of all land areas in the Highlands Area designated as Critical Wildlife Habitat, Significant Natural Areas, and Vernal Pools, including Vernal Pool Buffers. Each of these is established as an overlay to municipal zoning.

A. ***Critical Wildlife Habitat.*** Within the Planning Area, Critical Wildlife Habitat consists of those areas within NJDEP's Landscape Project Version 3 (or more recent version as amended) that are Landscape Rank 3 through 5. In addition, it includes areas that are designated Landscape Rank 2 and have a Highlands Conservation Rank of Critically Significant or Significant. Within the Preservation Area, Critical Wildlife Habitat consists of those areas within Landscape Rank 2 through 5, including all Highlands Conservation Ranks.

B. ***Significant Natural Areas.*** Significant Natural Areas consist of the 95 NJDEP Natural Heritage Priority Sites, including habitat for documented threatened and endangered plant species, and lands

that include unique or regionally significant ecological communities and other significant natural sites and features.

C. ***Vernal Pools.*** Areas designated as Vernal Pools consist of NJDEP-certified vernal pools plus a 1,000-foot wide protection buffer surrounding the perimeter of each such pool. Vernal Pools consist of confined, ephemeral wet depressions that support distinctive, and often endangered, species that are specially adapted to periodic extremes in water pool levels.

§ 4.3.6 **Carbonate Rock Areas**

Carbonate Rock Areas consist of those portions of the Highlands Area that are underlain by carbonate rock, such as limestone and dolomite. Inclusion of lands within a Carbonate Rock Area does not imply the presence of karst features area-wide, but is indicative of the potential for solution of underlying carbonate rock by surface or ground water, over time.

§ 4.3.7 **Lake Management Area**

The Lake Management Area is defined to include the drainage area of all Highlands Area lakes having a surface area of greater than ten acres. The Lake Management Area includes the following sub-classifications:

A. ***Shoreland Protection Tier.*** The Shoreland Protection Tier consists of the lands surrounding a lake that lie within 300 feet of its shoreline, or between the shoreline and the nearest property line adjacent to and alongside of the lake, whichever is the lesser.

B. ***Water Quality Management Tier.*** The Water Quality Management Tier consists of the lands surrounding and draining to a lake that lie within 1,000 feet of its shoreline. This tier includes the Shoreland Protection Tier.

C. ***Scenic Resource Tier.*** The Scenic Resource Tier consists of the lands surrounding a lake that lie within 300 feet of its shoreline (the Shoreland Protection Tier) plus any lands within 1,000 feet of its shoreline that fall within the viewshed observable from the opposite shoreline. The limits of such viewsheds require mapped delineations based upon the topography of such lands, with the highest observable elevations, forming the viewshed perimeter.

D. ***Lake Watershed Tier.*** The Lake Watershed Tier consists of the entirety of the land area draining to a lake, as determined through the evaluation of drainage areas using LiDAR topographic analysis or other topographic data where LiDAR data are not available.

§ 4.3.8 **Prime Ground Water Recharge Areas**

Prime Ground Water Recharge Areas consist of those lands having the highest ground water recharge rates within each HUC14 subwatershed (as indicated by analysis using the GSR-32 methodology of the New Jersey Geological Survey), and that cumulatively provide forty percent (40%) of the total recharge volume for the subwatershed.

§ 4.3.9 **Wellhead Protection Areas**

Wellhead Protection Areas consist of those areas surrounding a public water system well, from which ground water flows to the well and ground water contamination, if it occurs, may pose a significant threat to the quality of water withdrawn from the well. Wellhead Protection Areas are composed of three tiers reflecting the time required for ground water to flow into the well, as follows:

A. ***Wellhead Protection Area Tier 1.*** That area of land within a Wellhead Protection Area (WHPA) from which the flow of ground water to the well has a Time of Travel of 2 years.

B. ***Wellhead Protection Area Tier 2.*** That area of land within a WHPA from which the flow of ground water to the well has a Time of Travel of 5 years.

C. ***Wellhead Protection Area Tier 3.*** That area of land within a WHPA from the flow of ground water to the well has a Time of Travel of 12 years.

§ 4.3.10 **Highlands Special Environmental Zone**
The Highlands Special Environmental Zone consists of lands having the highest priority ranking for preservation based on the Highlands Council Resource Assessment methodology. This assessment considers five indicators for the protection of water resources and environmentally sensitive lands, including: Forest within the Forest Resource Area, Riparian Corridor Condition High, Highlands Open Water Protection Area, Critical Habitat, and the Water Quality Management Tier of Lake Management Areas (excluding those of the Lake Community Sub-Zone). The Special Environmental Zone is located within the Highlands Conservation Priority Area and is located solely within the Preservation Area.

§ 4.3.11 **[*Reserved*]**

§ 4.3.12 **Highlands Historic, Cultural and Archaeological Resources**
[*Note*: *Adoption of Highlands Historic, Cultural and Archaeological Resources as an overlay to municipal zoning is encouraged but not required. To adopt, retain this subsection; otherwise delete in entirety along with related subsections following. Township will finalize prior to adoption.*] Highlands Historic, Cultural and Archaeological Resources consist of those properties, sites and districts listed in the Highlands Historic, Cultural and Archaeological Resources Inventory. These include but are not limited to: all properties listed on the New Jersey or National Register of Historic Places; all properties which have been deemed eligible for listing on the New Jersey or National Register of Historic Places; and all properties for which a formal opinion of the State Historic Preservation Office (SHPO) has been issued.

§ 4.3.13 **Highlands Scenic Resources**
Highlands Scenic Resources consist of those properties, sites, and viewsheds listed in the Highlands Scenic Resources Inventory. These include but are not limited to national historic landmarks and publicly-owned federal, state and county parks, forests, and recreation areas.

§ 4.4 ADOPTION OF HIGHLANDS AREA DISTRICT MAPS

All Highlands Area Districts as set forth under § 4.1 through § 4.3, above, including Planning and Preservation Areas, Zones and Sub-Zones, Resource Areas and Special Protection Areas, are hereby established by the designation, location and boundaries as set forth for each respectively, in the following maps, each of which is hereby declared to be a part of this Highlands Area Land Use Ordinance:

§ 4.4.1 **Township Highlands Area, Zones, and Sub-Zones**
Map titled "Township of Rockaway Highlands Area, Highlands Zones and Sub-Zones," dated August 11, 2010 depicting the municipality along with delineation of the Preservation Area, Planning Area, and Highlands Zones and Sub-Zones, as provided by the Highlands Council (Exhibit 1).

§ 4.4.2 **Highlands Area Resource and Special Protection Areas**
Series of Maps depicting the Resource and Special Protection Areas listed at § 4.3.1 through § 4.3.13 above, and also including related features and areas as discussed and defined in Article 6 of this Ordinance; dated August 11, 2010 (unless otherwise specifically noted), as provided by the Highlands Council.

A. ***"Forest Resource Area, Total Forest Area, Forest Subwatershed Integrity Areas."*** Map depicting that portion of the Township Highlands Area designated as Forest Resource Area (pursuant

to § 4.3.1 above) and including Total Forest Area and Forest Subwatershed Integrity Areas (as defined at § 6.1); map denoted Exhibit 2, dated February 4, 2011.

B. ***"Highlands Open Waters, Watershed Resource Value Areas, Lake Management Areas."*** Map depicting Highlands Open Waters located wholly or partially within the Township Highlands Area (pursuant to § 4.3.2 above); Lake Management Areas which include lakes having a surface area greater than ten acres and associated lake management tiers, including representative Scenic Resource Tier (i.e., non-delineated; 1,000-feet from estimated shoreline) (pursuant to § 4.3.7 above); and including Watershed Resource Value Areas (as defined at § 6.2.2); map denoted Exhibit 3.

C. ***"Riparian Area, Riparian Subwatershed Integrity Areas."*** Map depicting Riparian Areas (pursuant to § 4.3.3 above) located within the Township Highlands Area and including Riparian Subwatershed Integrity Areas (as defined at § 6.2.3); map denoted Exhibit 4.

D. ***"Steep Slope Protection Area."*** Map depicting those portions of the Township Highlands Area having 5,000 square feet or more of contiguous surface area in steep slopes (pursuant to § 4.3.4 above); map denoted Exhibit 5.

E. ***"Critical Wildlife Habitat, Significant Natural Areas, Vernal Pools."*** Map depicting those portions of the Township Highlands Area designated as Critical Wildlife Habitat (pursuant to § 4.3.5 A above); those portions of the Township Highlands Area designated as Significant Natural Areas (pursuant to § 4.3.5 B above); and Vernal Pool locations (by center-point only, non-delineated), including representative Vernal Pool Buffers (1,000-feet from center point), located within the Township Highlands Area (pursuant to § 4.3.5.C above); map denoted Exhibit 6.

F. ***"Carbonate Rock Area, Prime Ground Water Recharge Area, Wellhead Protection Areas."*** Map depicting those portions of the Township Highlands Area designated as Carbonate Rock Areas (pursuant to § 4.3.6 above); those portions of the Township Highlands Area designated as Prime Ground Water Recharge Areas (pursuant to § 4.3.8 above); and the location of public water system wells within the Township Highlands Area and the associated wellhead protection tiers surrounding them (pursuant to § 4.3.9 above); map denoted Exhibit 7,dated February 4, 2011.

G. ***"Highlands Special Environmental Zone."*** Map depicting those lands of the Township Highlands Area designated by the Highlands Council as Highlands Special Environmental Zone (pursuant to § 4.3.10 above); map denoted Exhibit 8.

H. ***"Highlands Historic, Cultural and Archaeological Resources, Highlands Scenic Resources."*** [*Note*: *Adoption of Highlands Historic, Cultural and Archaeological Resources mapping is required only if the municipality retains subsection § 4.3.12 above. Adoption of Highlands Scenic Resources mapping is required. Township will finalize prior to adoption.*] Map depicting properties located within the Township Highlands Area that are listed in the [*if applicable:* Highlands Historic, Cultural, and Archaeological Resources Inventory (pursuant to § 4.3.12 above); and properties located within the Township Highlands Area that are listed in the] Highlands Scenic Resources Inventory (pursuant to § 4.3.13 above); map denoted Exhibit 9, dated February 4, 2011.

§ 4.5 INTERPRETATION OF DISTRICT MAPS BOUNDARY LINES

All Highlands Area District maps, as set forth at § 4.4 above, have been developed by the Highlands Council using Geographic Information System (GIS) digital data. The provisions herein shall apply to the interpretation and use of Highlands Area District maps and the boundary lines they specify.

§ 4.5.1 Municipal Boundary Lines

The Highlands Act relies upon municipal boundary lines to designate the limits of the Highlands Region. The Highlands Council dataset establishing municipal boundary lines was created by dissolving parcel level polygons (GIS) for each of the 88 municipalities within New Jersey Highlands. Parcels from the following counties have a general accuracy of plus or minus five (5) feet: Bergen, Passaic, Somerset, Sussex, and Warren. Data from Hunterdon and Morris were provided by the counties and may have a different accuracy level. This dataset is for representative purposes only. Where the specific delineation of any municipal boundary line comes into question, municipal information such as metes and bounds surveys shall be relied upon for any final determination.

§ 4.5.2 Township Highlands Area

The Highlands Area, Highlands Zones and Sub-Zones map (§ 4.4.1, above) provides the Highlands Preservation Area Boundary as described by the Highlands Act (N.J.S.A. 13:20-7a). To digitize the survey description, the Highlands Council used the Highlands Parcel Base, the NJDEP Hydrographic Layer for 2002, and the NJDOT Local Road Files from 2005 as references. In accordance with the Highlands Act, any natural geographical feature, including a river, stream or brook, used in the boundary description of the Preservation Area is considered to lie totally within the Preservation Area, while any road, railroad or railroad right of way is considered to lie totally outside of the Preservation Area. The use of property block and lot designations include or exclude property from the Preservation Area, as described. Where a survey gore exists between a property boundary depicted upon a municipal tax map and the limits of a surveyed property noted in the Preservation Area description, the surveyed property boundary description is considered to constitute the Preservation Area boundary.

Additionally, the Preservation Area does not include land located within the boundaries of any regional center or town center designated by the State Planning Commission pursuant to the "State Planning Act," P.L.1985, c.398 (C.52:18A-196 et al.) as of the date of enactment of the Highlands Act, except to the extent necessary as set forth in the boundary description of the Preservation Area to reflect appropriate and nearest practicable, on-the-ground, and easily identified reference points.

§ 4.5.3 Highlands Zones, Sub-Zones, Resource Areas, Special Protection Areas

The boundaries delineated for all Highlands Zones, Sub-Zones, Resource Areas, and Special Protection Areas were developed by the Highlands Council based on the factors noted in the description of each, above. Further discussion is provided in the Township Environmental Resource Inventory and in the Highlands Element of the Township Master Plan.

§ 4.5.4 Mapping Conflicts

In the event of a conflict concerning the location of any Highlands District boundary line, the delineations provided by the Highlands Council as adopted herein, shall be determinative. Modifications may be requested of the Highlands Council through submittal of an RMP Update, Map Adjustment or Highlands Center Designation in such manner as required by the Highlands Council, or as specifically provided otherwise in this Ordinance. In the event of any conflict concerning the Preservation Area boundary line, the metes and bounds description provided by the Highlands Act shall govern, with any discrepancy or dispute residing under the shared jurisdiction of the Highlands Council and the NJDEP. In the event of a conflict concerning the delineation of any parcel plotted by the Highlands Council using GIS software, a current property survey shall be determinative.

ARTICLE 5. HIGHLANDS AREA ZONE DISTRICT REGULATIONS

§ 5.1 APPLICABILITY

The provisions of this Article modify the regulations applicable to the underlying municipal Zoning Districts, with specific regard to permitted uses, conditionally permitted uses, prohibited uses, and densities and intensities of development.

§ 5.2 USE REGULATIONS

All principal and accessory uses permitted or conditionally permitted by the underlying municipal Zoning Ordinance shall remain in effect as provided therein, except to the extent that such uses may be modified or eliminated by the provisions of this section. Any and all principal and accessory uses prohibited by the underlying Zoning Ordinance shall remain prohibited as provided therein, unless specifically designated as a permitted use by the provisions of this section. The lists of permitted, conditionally permitted and prohibited uses of the underlying Zoning Ordinance are herewith amended as necessary to provide for the use allowances and use restrictions that follow.

§ 5.2.1 Permitted Uses

The permitted uses applicable to that portion of any municipal Zoning District overlain by the Highlands District classifications listed below shall be modified in accordance with the provisions that follow. In addition, any use permitted by the underlying zoning that is cited at § 5.2.2 or § 5.2.3 below, shall be amended in accordance with the provisions set forth therein.

A. ***All Highlands Zones & Sub-Zones.*** Where the development of any new or expanded principal or accessory use that is permitted by the underlying municipal Zoning Ordinance is made physically infeasible due to the maximum density of development requirements at § 5.3, below, such use shall no longer apply as a permitted use. Where the septic system density allowance calculated pursuant to § 5.3 would permit a maximum of one (1) dwelling unit for a given parcel, for example, but the underlying Zoning Ordinance would permit construction of a multi-family project (such as townhomes or garden apartments) which by definition would contain more than one dwelling unit, the permitted use would be made physically infeasible and must no longer be considered a permitted use. This provision shall apply only to the extent that the Highlands Zone or Sub-Zone from which the density requirement derives, intersects with the affected underlying municipal Zoning District. Where the development type remains feasible, its status as a permitted use shall remain, provided that the applicable density allowances shall be those of § 5.3.

   1. *Cluster Development.* Cluster development shall continue to be a permitted use in the R-5 Acre, R-88, R-20 and R-13 Zone Districts wherever the minimum thresholds for residential cluster development pursuant to § 54-30.13, § 54-30.21.f., § 54-30.22.f., § 54-30.23.f., and § 54-30.29.f. of the underlying municipal zoning ordinance can be satisfied and subject to § 5.3 of this Ordinance. Where the minimum threshold requirements of § 54-30.13, § 54-30.21.f., § 54-30.22.f., § 54-30.23.f., and § 54-30.29.f. of the underlying municipal zoning ordinance cannot be satisfied, or where the maximum density of development requirements at § 5.3 make cluster development physically infeasible, permitted principal residential uses shall remain as permitted by the underlying municipal zoning ordinance.

B. ***Highlands Special Environmental Zone.*** For lands falling within the Highlands Special Environmental Zone, any principal or accessory use, and any structure related or devoted to such use,

that is permitted by the underlying municipal Zoning Ordinance shall no longer be a permitted use or structure unless:

1. For any non-Major Highlands Development proposal, a Special Environmental Zone waiver permitting such use is issued by the Highlands Council; or

2. For any Major Highlands Development proposal, an HPAA with waiver is issued by the NJDEP.

§ 5.2.2 **Conditional Uses**

The conditional uses applicable to that portion of any municipal Zoning District overlain by the Highlands District classifications listed below shall be modified in accordance with the provisions that follow. In addition, any use conditionally permitted by the underlying zoning that is cited at § 5.2.1 above or § 5.2.3 below, shall be amended in accordance with the provisions set forth therein.

A. ***All Highlands Zones & Sub-Zones.*** Where the development of any principal or accessory use that is conditionally permitted by the underlying municipal Zoning Ordinance is made infeasible by the density of development requirements of § 5.3, below, such use shall no longer be considered a conditionally permitted use. (See example at § 5.2.1. A, above.) This provision shall apply only to the extent that a Highlands Zone or Sub-Zone from which the density requirement derives, intersects with the affected underlying municipal Zoning District. Where the development type remains feasible, its status as a conditionally permitted use shall remain, provided that the applicable density and intensity allowances shall consist of those at § 5.3.

B. ***Highlands Special Environmental Zone.*** Any conditionally permitted principal or accessory use (or structure related or devoted to such use) applicable to lands falling within the Highlands Special Environmental Zone, shall no longer be permitted unless:

1. For any non-Major Highlands Development proposal, a Special Environmental Zone waiver permitting such conditional use is issued by the Highlands Council; or

2. For any Major Highlands Development proposal, an HPAA with waiver is issued by the NJDEP.

§ 5.2.3 **Prohibited Uses**

The prohibited uses applicable to that portion of any municipal Zoning District overlain by the Highlands District classifications listed below shall be modified as necessary to comport with the provisions that follow. These provisions shall not apply to Appendix B Major PCS #17 pertaining to livestock, to Appendix C Minor PCS #12 pertaining to agricultural chemical storage, or to Appendix C Minor PCS#14 pertaining to livestock.

A. ***Carbonate Rock Area.*** The following principal or accessory uses and structures related or devoted to such uses, where otherwise permitted by the underlying municipal Zoning Ordinance, are expressly prohibited from any portion of the Carbonate Rock Area or from any lands identified as draining into a designated Carbonate Rock Area:

1. Solid waste landfills;

2. Hazardous waste storage and disposal facilities;

3. Hazardous materials storage and handling facilities; and

4. Underground storage tanks.

B. ***Prime Ground Water Recharge Area.*** Any principal or accessory use, or structure related or devoted to such use, which is designated as a Major Potential Contaminant Source (PCS) by the Highlands Council (see APPENDIX B), where otherwise permitted by the municipal ordinance, is expressly prohibited from any portion of the Prime Ground Water Recharge Area.

C. ***Wellhead Protection Area, Tier 1.*** Any principal or accessory use, or structure related or devoted to such use, which is designated by the Highlands Council as a Major or Minor Potential Contaminant Source (PCS) or as a potential source of pathogenic contaminants (see APPENDIX B and APPENDIX C), where otherwise permitted by the municipal ordinance, is expressly prohibited from any portion of a Tier 1 Wellhead Protection Area.

D. ***Wellhead Protection Area, Tier 2.*** Any principal or accessory use, or structure related or devoted to such use, which is designated as a Major Potential Contaminant Source (PCS) by the Highlands Council (see APPENDIX B), where otherwise permitted by the municipal ordinance, shall be expressly prohibited from any portion of a Tier 2 Wellhead Protection Area.

§ 5.3 DENSITY AND INTENSITY OF DEVELOPMENT

The provisions of this section are intended to ensure that development in the Highlands Area occurs at densities and intensities that are appropriate to the water supply and wastewater treatment options available to support it. These provisions shall serve as a check on the various density/intensity provisions of the underlying Zoning Ordinance, which shall remain in effect to the extent not specifically in conflict with these provisions. The density/intensity allowances of the underlying Zoning Ordinance provisions reflect the intents and purposes set forth for the municipal zoning districts as established by the Township Master Plan and the effectuating Zoning Ordinances. They define and support the intended character and patterns of development for each district, setting forth the relationship between built form in a district and the lot or lots on which it is situated. The provisions of this section relate solely to ensuring that such development: a) does not exceed the capacity of the land, resources and infrastructure available to support it; and b) is designed to minimize land disturbance and protect natural resources.

§ 5.3.1 Use of Terms

For purposes of these provisions, density of development standards refer to requirements of the underlying Zoning Ordinance that regulate the permitted number of dwelling units per acre of land, whether specifically defined as density standards or set forth as minimum lot size requirements for application to specific zoning districts. Intensity of development standards refer to those requirements used to define the relationship between the permitted extent, form and location of development of a lot, to the size, shape and configuration of the lot on which it is situated (e.g., floor area ratio, building coverage, building height, yard setbacks, number of stories).

§ 5.3.2 Applicability

Changes to the density or intensity standards of the underlying Zoning Ordinance required pursuant to this section shall not apply to development in the Highlands Area that is lawfully existing or approved as of the effective date of adoption of this Ordinance (pursuant to § 2.7 and § 2.6 above, respectively). These provisions shall apply, however, if modifications or improvements to such existing development constitute a Major Highlands Development in the Preservation Area involving installation of a new septic system. For other than Major Highlands Development, these provisions shall apply if such modifications or improvements result in, for residential development (or any residential portion thereof), an increase in the number of residential units, or, for non-residential development (or any non-residential portion thereof), an increase in water demand by an average of 400 gallons per day or more, or for septic system yield by an average of 300 gallons per day or more. These provisions are expressly intended to apply to any change in use of an existing structure or structures, and require a determination as to any net increase. Where such a change

converts a residential use to non-residential use, or vice versa, equivalent dwelling unit figures shall be applied to determine whether the change in use will result in a net increase in either water availability or septic system demand. For septic system demand, the equivalent dwelling unit wastewater flow shall be an average 300 gallons per day, while for water availability, the equivalent dwelling unit flow shall be an average 400 gallons per day.

§ 5.3.3 Base Mapping

Base maps regarding water availability and wastewater treatment capacity appear in the technical information provided in the Conservation and Utility Services Plans of the Township Master Plan Highland Element. These maps are combined into one for purposes of this Ordinance, denoted as Exhibit 10 and herewith adopted and incorporated, as titled: "Net Water Availability by HUC14 Subwatershed, Highlands Domestic Sewerage Facilities, Public Community Water Systems."

§ 5.3.4 Development Subject to Water Availability

The following density and intensity provisions notwithstanding, all new development (as defined at § 3.2) within the Highlands Area is subject to the availability of water sufficient in both quantity and quality to sustainably support it. Any proposed increase in the demand for water supply deriving from Highlands Area ground water sources or from surface water sources that are not associated with a NJDEP-approved safe yield, shall be accompanied by a finding of sufficient water capacity, which finding shall be issued by the Highlands Council. This provision shall apply to all development as defined at § 3.2, expressly including any change in use (or modification to an existing use pursuant to § 5.3.2) that entails an increase in the number of residential units, or for non-residential development (or any non-residential portion), an increase in the demand for such water supply by an average 400 gallons per day or more. In the case of a Major Highlands Development such approval shall be evidenced by issuance of a Highlands Preservation Area Approval from the NJDEP. Specific requirements pertinent to new development reliant upon ground water supplies may be found at § 6.7. For purposes of determining net increases in water demand associated with modifications to existing uses pursuant to these requirements, the following unit/square footage figures shall apply as 400-gallon-per-day equivalents:

A. Residential Uses (All Types) – 1 dwelling unit

B. Office and Commercial Uses – 2,400 square feet of floor area

C. Industrial (Including Warehousing/Distribution) Uses – 18,182 square feet of floor area (Excluding Process Wastewater Flow)

§ 5.3.5 Development Served by Septic Systems

A. ***Major Highlands Development in the Preservation Area.*** Development proposals involving new or increased demand for septic system capacity for Major Highlands Development in the Preservation Area shall be regulated in accordance with this section. These provisions shall override any density, intensity, bulk, or other standard of the underlying Zoning Ordinance that would permit a septic system density in excess of that as provided herein. Nothing herein shall be deemed to apply to the replacement or repair of an existing septic system.

1. *NJDEP Preservation Area Rules Apply.* Any new individual subsurface disposal system (or aggregate of equivalent disposal units as provided at N.J.A.C. 7:38) proposed to serve a Major Highlands Development shall be authorized only by the NJDEP in accordance with NJDEP Preservation Area Rules (N.J.A.C. 7:38) and all other applicable requirements. In the case of any such system proposed in service to a cluster development, the provisions at B.11.d, below shall also apply. The applicable septic system density requirements appear at A.3, below.

2. *Cluster Development*. In addition to the gross septic system density requirements of A.3 below, any cluster development reliant upon individual wells shall be subject to a net septic system density limitation, calculated on the basis of the developed portion of a site, as provided at B., below. The septic system density shall not exceed that necessary to ensure that nitrate dilution for the developed portion of the site is maintained at 10 mg/L, or less. For purposes of this calculation, model inputs (see subsection B, below) shall include the requirements of subsection B, below while the nitrate target shall be 10 mg/L.

3. *Septic System Density Requirements*. A new individual subsurface disposal system or aggregate of equivalent disposal units where the sanitary wastewater design flow is 2,000 gallons per day or less shall be permitted only in accordance with the density limitations, at 3.a. through 3.d., below. Forest under this subsection shall be identified and calculated as provided at APPENDIX A (from N.J.A.C. 7:38-3). For the purposes of this subsection, "equivalent disposal unit" means: for residential development, one system serving one single-family home sized in accordance with the Standards for Individual Subsurface Sewage Disposal Systems, Volume of Sanitary Sewage, at N.J.A.C. 7:9A-7.4; or for non-residential development or residential development comprising structures other than single-family homes, 500 gallons of wastewater per day generated for the development type, as determined in accordance with N.J.A.C. 7:9A-7.4 (provided at APPENDIX G).

   a) On a lot that contains all forest, there shall be no more than one individual subsurface disposal system or equivalent disposal unit for each 88 acres of the lot;

   b) On a lot that does not contain forest, there shall be no more than one individual subsurface disposal system or equivalent disposal unit for each 25 acres of the lot;

   c) For the purposes of this subsection, the acreage of a lot shall be the total area of the lot(s) on which the proposed development is located as described by deed(s) or subdivision plat(s) on file with the municipal or county clerk.

   d) For a lot containing both forest and non-forest areas, the total number of allowable individual subsurface disposal systems or equivalent disposal units permitted on the lot shall be determined by calculating the number of acres of the lot that are forest (as determined in accordance with APPENDIX A, from N.J.A.C. 7:38-3.9) and dividing that number by 88; calculating the remaining number of acres of the lot that are not forest and dividing that number by 25; and then summing the results. If the sum results in a fraction, the number shall be rounded down to the nearest whole number in order to determine the number of permitted individual subsurface disposal systems or equivalent disposal units.

   e) For purposes of this section, noncontiguous lots in existence as of August 10, 2004 may be aggregated such that the number of individual subsurface disposal systems or equivalent disposal units that would be permitted under this section on one or more of the aggregated lots is transferred to one or more of the aggregated lots provided:

      (i) The proposed development on the lot or lots to receive the transferred individual subsurface disposal systems or equivalent disposal units complies with all federal, state and local laws;

      (ii) The proposed development on the lot or lots to receive the transferred individual subsurface disposal systems or equivalent disposal units does not require a waiver of any

requirement of N.J.A.C. 7:38 and is constructed in accordance with the Highlands Act and N.J.A.C. 7:38, inclusive of 3% maximum impervious surface limitations;

(iii) The lots to be aggregated under this paragraph are all located in the Preservation Area and within the same HUC14; and

(iv) The lot or lots from which the individual subsurface disposal systems or equivalent disposal units are to be transferred are subject to a conservation restriction against future disturbance provided in accordance with N.J.A.C. 7:38-6.3.

4. *Additional Septic System Requirements*. In addition to the requirements above, individual subsurface sewage disposal systems or equivalent disposal units shall satisfy the Standards for Individual Subsurface Sewage Disposal Systems (N.J.A.C. 7:9A) without extraordinary measures, including replacement of disposal field soil with permeable material or mounding of a disposal field to achieve the required depth to ground water or confining layer.

B. ***Planning Area Development and Non-Major Highlands Development in the Preservation Area.*** Development proposals involving new or increased demand for septic system capacity in the Planning Area, and for non-Major Development in the Preservation Area, shall be regulated in accordance with this subsection. These provisions shall override any density, intensity, bulk, or other standard of the underlying Zoning Ordinance that would otherwise permit a septic system density or use of septic system yield in excess of that as provided herein. These provisions shall apply equally in the case of any agricultural or horticultural development application proposing a new septic system to serve a residential dwelling unit (or accessory dwelling unit). Nothing herein shall be deemed to apply to the replacement or repair of an existing septic system, however.

1. *Septic System Density Requirements.* Septic system density (gross acres per septic system) shall not exceed that necessary to ensure compliance with the nitrate dilution allowances established below, for each Highlands Zone and Sub-Zone. Development proposals shall be evaluated on a project-specific basis for compliance with these requirements, using the methodology provided herein.

2. *Maximum Nitrate Dilution Allowances*.

   a) Existing Community Zone (and Sub-Zones) – 2 mg/L

   b) Protection Zone (and Sub-Zones) – 0.72 mg/L

3. *Nitrate Dilution Model - Applicable to Residential Cluster Development, Only.* To determine the minimum land area required per septic system (or per unit increase in required septic system capacity), a drought recharge-based nitrate dilution model shall be applied. This model is available through the Highlands Council website (see link within Municipal Instructions for Plan Conformance, Module 6 at: http://www.highlands.state.nj.us/njhighlands/planconformance/). It derives from two independent methods: a mass-dilution (modified Trela-Douglas) model and the New Jersey Geological Survey's (NJGS) ground-water-recharge method. The model provides the minimum number of acres required per septic system (applied as an average density) to ensure that recharge is sufficient to achieve nitrate dilution targets.

4. *Input Factors.* The following factors, representative of a one-family household, or average wastewater generation of 300 gallons per day, shall be used as inputs to the nitrate dilution model:

   a) Household size of four (4) persons;

b) Average nitrate loading of ten (10) pounds per person per year; and

c) Drought ground water recharge for the HUC14 subwatershed as dilution.

5. *Model Output.* The model output indicates the minimum acreage required per septic system, where that system is designed for a one-family household generating a maximum flow of 300 gallons of wastewater per day. The resulting acreage shall be applied as the minimum average acreage necessary to support every 300 gallons of daily wastewater flow generated by any proposed use where the unit/square footage figures below shall be applied as 300 gallon-per-day equivalents.

6. *Minimum Average Lot Size by Highlands Zone - Applicable to all development applications except those for Residential Cluster Development.* Based on maximum nitrate dilution allowances, the following table provides the minimum average lot size requirement per septic system for each of the HUC14 subwatersheds and Highlands Zones (each including Sub-Zones) located in the municipal Highlands Area. In all cases, minimum average acreage allowances are subject to analysis of site-specific conditions (e.g., soil characteristics) and a finding that capacity is available to support the resultant density.

HUC14	Subwatershed Name	Drought Recharge inches/year	Protection Zone acres/septic system	Existing Community Zone acres/septic system
02030103030030	*Rockaway R (above Longwood Lake outlet)*	10.3	23.8	8.6
02030103030040	*Rockaway R (Stephens Bk to Longwood Lk)*	10.2	24.0	8.7
02030103030050	*Green Pond Brook (above Burnt Meadow Bk)*	10.7	22.8	8.2
02030103030060	*Green Pond Brook (below Burnt Meadow Bk.)*	9.1	26.9	9.7
02030103030070	*Rockaway R (74d 33m 30s to Stephens Bk)*	9.1	26.8	9.6
02030103030080	*Mill Brook (Morris Co)*	9.5	25.7	9.3
02030103030090	*Rockaway R (BM 534 brdg to 74d 33m 30s)*	8.2	30.0	10.8
02030103030100	*Hibernia Brook*	10.4	23.5	8.5
02030103030110	*Beaver Brook (Morris County)*	10.2	24.1	8.7
02030103030130	*Stony Brook (Boonton)*	10.1	24.2	8.7
02030103030140	*Rockaway R (Stony Brook to BM 534 brdg)*	9.0	27.3	9.8
02030103050050	*Pequannock R (Charlotteburg to Oak Ridge)*	11.9	20.6	7.4
02030103050070	*Stone House Brook*	9.6	25.5	9.2

7. *Equivalent Yields.* The following unit/square footage figures shall be applied as 300 gallon-per-day equivalents:

a) Residential Uses (All Types, except as provided below) – 1 dwelling unit

b) Deed-Restricted Senior Citizen Residential Units, or Mobile Home Parks with dwelling units less than 500 square feet in size – 1.5 dwelling units

c) Office and Commercial Uses – 2,400 square feet of floor area

d) Industrial (Including Warehousing/Distribution) Uses – 18,182 square feet of floor area (Excluding Process Wastewater Flow)

e) Specific Non-Residential Uses by Facility Type – In lieu of c., or d., above, 300 gallon-per-day equivalents may be computed based on the average sewage volumes provided in Appendix G, from N.J.A.C. 7:9A-7.4.

8. *Septic System Yield.* The maximum septic system yield shall be determined by dividing the total area of the subject property by the minimum average acreage required per septic system (or per unit/floor area equivalent), as determined by the nitrate dilution model (for residential cluster development) or table above (for all other development). Where the development application proposes unit or floor area equivalents (or any combination thereof) in a quantity equal to or less than the calculated septic system yield, it shall be deemed compliant with this section. For residential cluster development, if a project site is located within more than one HUC14 subwatershed, the nitrate dilution model shall be run for each portion of the site using the drought ground water recharge applicable to each HUC14, respectively, with separate septic system yields computed accordingly. For all other development, if a project site is located within more than one HUC14 subwatershed, the average minimum lot sizes in the chart above shall be applied proportionately in relation to the area of land located in each HUC14.

9. *Floor Area.* For the purposes of this subsection, floor area shall comprise the area of each floor of a building lying within the inside perimeter of its exterior walls excluding vent shafts, courts, and unfinished areas such as basements or attics having ceiling heights less than that required for habitable space under the building code.

10. *Lot Area.* For the purposes of this subsection, the acreage of a lot shall be the total area of the lot(s) on which the development is proposed to be located as described by deed(s) or subdivision plat(s) on file with the municipal or county clerk.

11. *Application of Results.*

a) *Detached One- or Two-Family Residential Development.* Where the underlying density (or minimum lot size) allowances of the municipal Zoning Ordinance would otherwise permit a greater number of units, the septic system density and septic system yield resulting from the preceding analysis may be applied as the minimum lot size and the maximum permitted dwelling unit yield-or subject to the provisions of subsection d., below, as the minimum average lot size with the septic system yield as the maximum unit yield.] Alternatively, the underlying Zoning Ordinance allowances may be applied over a portion of the project area, subject to the limitations of subsection d., below, to the point at which the calculated septic system yield (by HUC14) is reached, with the remainder of the lot area left undeveloped.

b) *Multi-Family Residential Development*. Where the underlying density allowances of the municipal Zoning Ordinance would otherwise permit a greater number of units, the septic system yield resulting from the preceding analysis shall be applied as the maximum permitted dwelling unit yield.

c) *Non-Residential and Mixed Residential/Non-Residential Development.* Where the underlying density allowances of the municipal Zoning Ordinance would otherwise permit greater non-residential floor area, or a greater number of residential units, or both, the septic system yield resulting

from the preceding analysis shall be applied using the 300 gallon-per-day equivalents, as provided above, to determine the maximum permitted yield or combined yield.

d) *Residential Cluster Development*. Where residential clustering dependent upon individual on-site wells for water supply, is proposed, the septic system density applicable to the developed portion of a site, or net septic system density, shall in no case result in a nitrate dilution in excess of 10 mg/L. This determination shall be made by application of the drought recharge-based nitrate dilution model as described above, using 10 mg/L as the nitrate dilution target. For purposes of this calculation, septic system yield shall be calculated on the basis of the developed portion of the site only, which shall consist of a contiguous land area including the following:

(i) All land area proposed to be occupied by buildings, structures and associated improvements, all land area to be disturbed in connection with the construction or installation of such buildings, structures and improvements, and all of the land area intervening; and

(ii) All land area dedicated to any street or roadway providing public (or common) access to the development, to the limits of the right-of-way, easement, or other area(s) designated to contain such common access; and

(iii) All land dedicated to a community on-site stormwater detention facility, or other like facility providing public (or common) services to the development, each to the limits of the easement, lot line(s), or other area(s) designated to contain such common facility.

12. *Aggregation of Septic System Yield.* Nothing herein shall be construed to prohibit the aggregation of available septic system yield from contiguous or noncontiguous parcels within the same HUC14 subwatershed in support of a new development project on one or more such parcels, provided that:

a) The contribution of septic system yield shall occur only where excess yield is available;

b) The contribution of septic system yield from any already-developed parcel shall be permitted only where sufficient to equal one (1) dwelling unit or more, or for non-residential development, one (1) 300 gallon-per-day floor area equivalent or more;

c) All lands contributing to such yield shall be dedicated to the support of the septic system(s) proposed for the new development, and no such land shall be counted in the calculation of septic system yield applicable to any other;

d) All such lands shall be deed-restricted to prohibit any future development requiring the availability of septic system yield, until or unless such yield is either returned from the new development it was initially deed-restricted to support, or is obtained (by dedication through deed restriction) from elsewhere within the same HUC14 subwatershed.

13. *HUC14 Subwatershed Yield.* The septic system yield applicable to a HUC14 subwatershed shall in no case be exceeded; an increase in any one portion of a HUC14 subwatershed must be offset by an equivalent decrease elsewhere within the same subwatershed.

14. *Additional Septic System Requirements*. In addition to the requirements above, individual subsurface sewage disposal systems or equivalent disposal units shall satisfy all standards for design,

installation, and maintenance as set forth in any applicable Township Health Ordinance and any related and applicable regulatory requirements of other agencies having jurisdiction.

§ 5.3.6 **Development Served by Existing or Extended Utility Infrastructure**

Where lots proposed for development in the Highlands Area are served by existing public water and wastewater utility infrastructure having sufficient available capacity, the density and intensity of new development shall be consistent with all requirements of the underlying municipal Zoning Ordinance. For purposes of this provision, "existing" water and wastewater utility infrastructure refers to that, either: a) lawfully constructed and operational, or b) approved for construction in an Existing Community Zone (excluding the Constrained Sub-Zone), including the Lake Community Sub-Zone) in the Planning Area, under an Areawide Water Quality Management Plan. In the case of Residential Cluster Development, however, the maximum unit yield shall not exceed that as determined by calculation of the septic system yield pursuant to § 5.3.5, above. An increase in units in excess of the calculated septic system yield shall be permitted only to the extent of any aggregated septic system yield, as provided in accordance with § 5.3.5 A.4 and § 5.3.5 B.12.

§ 5.3.7 **New or Extended Utility Infrastructure**

A. ***Preservation Area.*** New, expanded or extended public water systems, wastewater collection and treatment systems, and community on-site treatment facilities are prohibited unless approved through issuance of either a Highlands Applicability Determination indicating that a project is exempt from the Highlands Act, or a Highlands Preservation Area Approval with waiver pursuant to N.J.A.C. 7:38.

B. ***Planning Area – Protection Zone and Environmentally-Constrained Sub-Zones.*** New, expanded or extended public water systems, wastewater collection and treatment systems, and community on-site treatment facilities are permitted only where approved by the Highlands Council.

C. ***Planning Area – Existing Community Zone*** *(excluding Environmentally-Constrained Sub-Zone)* ***and Lake Community Sub-Zone.*** Expansion or creation of public water systems, wastewater collection and treatment systems, and community on-site treatment facilities are permitted: to serve lands which are appropriate for designated TDR Receiving Zones (if applicable), infill development, or redevelopment; to address public health and safety; or to serve new areas for development; all of which address all other requirements of this Ordinance. (See applicable provisions at § 7.7 - § 7.8, below.)

§ 5.3.8 **Development Served by New or Extended Utilities**

Where new development proposed in the Highlands Area will not rely upon installation of septic systems, but will be served by new or extended public water systems, wastewater collection and treatment systems, or community on-site treatment facilities, such development shall be in compliance with any conditions of approval required by the Highlands Council or the NJDEP, as applicable, in connection with amendment of the Areawide Water Quality Management Plan.

ARTICLE 6. HIGHLANDS AREA RESOURCE REGULATIONS

§ 6.1 FOREST RESOURCES

§ 6.1.1 Findings

Forests are a defining visual and functional feature of the Highlands Area. Forests provide habitat and sustenance for a diverse array of plants and animals and are essential to maintaining biodiversity. Forests protect against soil erosion, provide filtration for ground water recharge, and assist in protecting stream water quality. Forests retain moisture and sequester atmospheric carbon, thus helping to stabilize weather patterns and mitigate global warming. Forested areas of the Highlands Area offer important recreational resources, contribute to its unique scenic quality, and when managed sustainably, can provide a long-term source of wood and wood products.

§ 6.1.2 Total Forest Area

All portions of the Highlands Area identified by the Highlands Council as containing forest (as defined at § 3.2) appear as Total Forest Area in the map titled "Forest Resource Area, Total Forest Area, Forest Subwatershed Integrity Areas" (Exhibit 2), adopted and incorporated as a component of this Ordinance pursuant to § 4.4, above.. The Total Forest Area includes forested portions of lands designated as Forest Resource Area, as provided at § 4.3.1, above.

§ 6.1.3 Forest Subwatershed Integrity Areas

The Highlands Council has evaluated and assigned forest integrity valuations to each of the HUC14 subwatersheds of the Township Highlands Area. These valuations appear as Forest Subwatershed Integrity Areas in the map titled "Forest Resource Area, Total Forest Area, Forest Subwatershed Integrity Areas" (Exhibit 2) adopted and incorporated as a component of this Ordinance pursuant to § 4.4, above, inclusive of the applicable forest subwatershed integrity classes:

A. ***High Integrity Forest Subwatersheds.*** High Integrity Forest Subwatersheds are predominantly forested and characterized by a high proportion of forest cover consisting of high value core area, large patch sizes and short distances between patches.

B. ***Moderate Integrity Forest Subwatersheds.*** Moderate Integrity Forest Subwatersheds are predominantly forested, but do not exhibit a high proportion of high value core area, large patch sizes, or proximity between patches.

C. ***Low Integrity Forest Subwatersheds.*** Low Integrity Forest Subwatersheds are predominantly non-forested or include low values for proportion of forest cover and patch size, or exhibit high distance to nearest patch.

§ 6.1.4 Clear-Cutting Prohibited

Clear-cutting is prohibited in any forested portion of the Highlands Area, whether the affected lands are delineated as Total Forest Area or Forest Resource Area, or consist of lands containing upland forest, as determined under the procedures provided at APPENDIX A.

§ 6.1.5 Preservation Area Standards

A. ***Prohibitions.*** Any forest disturbance that by definition constitutes deforestation (see § 3.2), is prohibited within any portion of the Forest Resource Area, with the exception of that authorized under an HPAA issued by the NJDEP.

B. ***Allowances.*** Forest disturbance in the Forest Resource Area that does not by definition, constitute deforestation, shall be permitted in the Preservation Area only where authorized under an HPAA issued by the NJDEP, or where demonstrated to be the minimum required in connection with:

1. The maintenance of any legally pre-existing use or structure, expressly excluding the expansion of such use or structure; or

2. Either a permitted non-Major Highlands Development or the expansion of any legally pre-existing use or structure, where accompanied by submission, approval and implementation of a Forest Mitigation Plan designed to minimize the extent of forest disturbance, protect forest areas adjacent or proximate to the disturbance area, and mitigate for loss of trees or other forest vegetation removed during the course of such disturbance.

§ 6.1.6 **Planning Area Standards**

Disturbance (as defined at § 3.2) of any forested portion of the Planning Area shall be permitted only upon a finding by the reviewing board or other applicable municipal authority that the following requirements have been satisfactorily addressed:

A. Demonstration that the proposed disturbance can neither be avoided nor reduced in extent, while adequately providing for a proposed use that otherwise addresses the requirements of this Ordinance;

B. Demonstration that the proposed disturbance will not diminish the forest integrity class (as indicated in the map of Forest Subwatersheds (Exhibit 2) of any forested areas adjacent or proximate to the location of the proposed activity;

C. Incorporation of Low Impact Development techniques (see § 7.2) appropriate to the activity or development project proposed;

D. For any proposed disturbance other than that associated with the maintenance of a legally pre-existing use or structure (expressly excluding the expansion of any such use or structure), submission, approval and implementation of a Forest Mitigation Plan designed to minimize the extent of such disturbance, protect forest areas adjacent or proximate to the disturbance area, and mitigate for loss of trees or other forest vegetation removed during the course of such disturbance; and

E. Notwithstanding the preceding provisions, in the case of any proposed disturbance that by definition constitutes deforestation, submission, approval and implementation of a Forest Mitigation Plan designed to minimize the extent of deforestation, protect forest areas to remain, and restore or mitigate for forest area loss.

§ 6.1.7 **Forest Impact Reports Required**

With the exception of forest disturbance authorized pursuant to an HPAA issued by the NJDEP, any disturbance pursuant to § 6.1.5 or § 6.1.6, above, shall be approved only upon demonstration that the criteria required therein have been satisfied. In support of such proofs, a Forest Impact Report shall be submitted containing at minimum, the items listed herein.

A. ***All Forest Impact Reports***

1. A map of upland forest area located on or within 500 feet of the subject property, as determined in accordance with Appendix A. A map indicating any on-site areas designated as Forest Resource

Area or Total Forest (Exhibit 2). Where access is not available to adjacent properties, the municipal Environmental Resource Inventory and any updated Highlands Council GIS data delineating the Forest Resource Area and Total Forest may be relied upon for off-site forest identification.

2. A description of the nature, density and intensity of the proposed use or activity.

3. A plan indicating the extent of the forest disturbance area, identifying the number, location, species and, for trees of greater than six (6) inches in caliper (measured at 4.5 feet above grade level), the caliper of any trees proposed for removal.

4. A description of the site alternatives analysis undertaken to, in this order: a) avoid forest disturbance; b) minimize forest disturbance; and c) ensure that any forest disturbance that cannot be avoided results in the least impact.

5. A description of the low impact development practices to be used to minimize the disturbance area and its impact; design details to be indicated in development plans, if applicable.

6. A description of the site and the type and integrity class of the existing forest areas proposed to be disturbed or potentially affected by disturbance of adjacent or proximate forest areas.

7. If the applicant proposes site-specific forest information that differs from mapped forest resources in Exhibit 2, including information based on the method in APPENDIX A, it must be provided in a format and with sufficient information that the findings may be submitted for verification by the Highlands Council as an RMP Update.

8. An analysis of the effects (direct and indirect) of the proposed use or activity upon forests, including the resulting integrity class of forest areas adjacent or proximate to the disturbance area.

B. ***Deforestation Impact Reports.*** In addition to the items required above for all Forest Impact Reports, any application proposing disturbance that by definition, constitutes deforestation, shall include:

1. A description of the area surrounding the subject property within a 0.5 mile radius.

2. A map of all forest resources, as described in the Environmental Resources Inventory, within a 0.5 mile radius of the property, including any areas designated as Forest Resource Area or Total Forest (Exhibit 2).

3. A field survey and description of the local ecological community type(s) on the site and a description of the surrounding, macro-scale ecological community type(s) of which the property is part.

4. An inventory of forest community composition and stand structure. The inventory shall include a description of vegetation species richness, vegetation species composition, stand density and basal area, connectivity with surround forested lands, and the survey method.

5. An impact analysis documenting and describing any increase in forest fragmentation, creation of forest edge, disruption of forest area on steep slopes or riparian areas, or disruption of core forest areas that will occur as a result of the proposed use or activity.

§ 6.1.8 Forest Mitigation Plans

All Forest Mitigation Plans must be prepared by a State of New Jersey Approved Forester or other qualified professional. A Forest Mitigation Plan must include each of the components listed herein.

A. ***Mitigation Priority Area Map.*** Priority Areas are forested locations within the site having the highest ecological value to be targeted for conservation, restoration, or mitigation, including such areas as:

1. Highlands Open Waters and Buffers
2. Riparian Areas, including Floodplains and Floodprone Areas
3. Critical Habitat
4. Steep Slopes and Ridgelines
5. Core Forests and Contiguous Forest Patches

B. ***Protection Plan.*** A plan providing the proposed methodology appropriate to, and by which the applicable mitigation priority areas will be protected throughout the period of forest disturbance and thereafter.

C. ***Forest Protection Plan.*** A plan incorporating pre-construction and construction best management practices to ensure the well-being of forest areas adjacent or proximate to the disturbance area. Such plans shall include prescribed limits of disturbance to be mapped, field marked, and provided with protective fencing prior to the start of any construction activity. Plans shall indicate installation of tree protection fencing along the drip line of trees to be protected, with instructions barring encroachment by machinery or heavy equipment of any kind, and requiring regular inspection and maintenance of fencing throughout the construction period.

D. ***Mitigation Description.*** A description of the proposed forest restoration, tree planting plan or other mitigation initiative proposed to provide equivalent or enhanced forest ecosystem benefit in consideration of the extent and type of disturbance or deforestation that would result if the use or activity is approved.

E. ***Planting Plan.*** A detailed plan indicating the specific plantings proposed for restoration, reforestation or mitigation, including size, species, quantity, location, separation distances, planting details, deer and pest management protections, and maintenance plans.

F. ***Maintenance Agreement.*** A minimum 3-year maintenance agreement that outlines care-taking responsibilities of the applicant once the proposed planting has been completed. The maintenance agreement must include monitoring of newly planted stands, provide for protection devices in working order for 3 years, and ensure at least a 75% survival rate after 3 years.

§ 6.2 HIGHLANDS OPEN WATERS & RIPARIAN RESOURCES

§ 6.2.1 Findings

Highlands Open Waters (Exhibit 3) include all springs, streams (including intermittent streams), wetlands and bodies of surface water, whether natural or artificial (excluding swimming pools), located wholly or partially within the boundaries of the Highlands Area. Highlands Open Waters contribute to the water resources of the Highlands Region, and ultimately to the water supply of millions of New Jersey citizens. They are essential

to the ecologic function of the plant and animal communities of the Highlands Area that depend upon them for survival. Highlands Open Waters are also an important physical feature of the Township, contributing to its character, aesthetics, history and development, and to its recreational opportunities.

Protection of Highlands Open Waters is vital not only to the municipality, but to the Highlands Region and the state of New Jersey. The provision or preservation/enhancement of buffer areas adjacent to Highlands Open Waters is an integral component to ensuring such protection. Key functional values that buffers provide or contribute to, include but are not limited to: habitat for flora and fauna, stormwater and flood water retention and filtration, water quality protection, temperature moderation, aquatic ecosystem integrity and channel integrity. Highlands Riparian Areas (Exhibit 4) are lands associated with and bordering on Highlands Open Waters, often extending beyond Highlands Open Water buffers. These lands are likewise essential to providing critical hydrologic, ecologic and pollutant attenuation functions for Highlands Open Waters. Riparian areas moderate fluctuations in water temperature, help maintain ground water recharge and stream base flow, stabilize stream banks, and provide flood storage areas. During high flow or overland runoff events, riparian areas reduce erosion and sediment loads to surface water and remove excess nutrients and contaminants from flood water. Riparian areas also provide habitat for a variety of animal species and support terrestrial and aquatic food webs through deposition of woody debris.

It is in the interest of the local community, the Highlands Region, and the state of New Jersey that the Highlands Open Waters of the Township Highlands Area, including associated buffers and Riparian Areas, receive the highest level of protection possible. The map of Highlands Riparian Areas (Exhibit 4) includes all Highlands Open Waters and associated flood prone areas, riparian soils and wildlife corridors.

§ 6.2.2 **Watershed Resource Value Areas**

The Highlands Council has evaluated and assigned watershed resource valuations to each of the HUC14 subwatersheds of the Township Highlands Area. These valuations appear as Watershed Resource Value Areas in the map titled "Highlands Open Waters, Watershed Resource Value Areas, Lake Management Areas" (Exhibit 3) adopted and incorporated as a component of this Ordinance pursuant to § 4.4 above, inclusive of the three watershed resource value classes listed below.

A. ***High Resource Value Watersheds.*** High Resource Value Watersheds contain predominantly forest lands, include a significant extent of high quality habitat, and have limited pre-existing developed land.

B. ***Moderate Resource Value Watersheds.*** Moderate Resource Value Watersheds contain forest lands and some habitat suitable for rare, threatened or endangered species, but typically also contain significant areas of developed lands.

C. ***Low Resource Value Watersheds.*** Low Resource Value Watersheds contain a low proportion of forest lands, low proportion of habitat suitable for rare, threatened or endangered species, and higher proportion of developed land area.

§ 6.2.3 **Riparian Subwatershed Integrity Areas**

The Highlands Council has also evaluated the HUC14 subwatersheds of the Highlands Area on the basis of Riparian Area integrity, which are divided amongst three classes, as listed below. These appear as Riparian Subwatershed Integrity Areas in the map titled "Riparian Area, Riparian Subwatershed Integrity Areas" (Exhibit 4) adopted and incorporated as a component of this Ordinance pursuant to § 4.4 above.

A. ***High Integrity Riparian Area.*** The High Integrity Riparian Area consists of subwatersheds having Riparian Areas that exhibit predominantly natural vegetation, including high quality habitat for water/wetland dependent species, and a generally low incidence of impervious area, agricultural uses and road crossings.

B. ***Moderate Integrity Riparian Area.*** The Moderate Integrity Riparian Area consists of subwatersheds having Riparian Areas that contain a higher incidence of impervious area, agricultural uses and road crossings, and a reduced proportion of natural vegetation providing high quality habitat for water/wetland dependent species.

C. ***Low Integrity Riparian Area.*** The Low Integrity Riparian Area consists of subwatersheds having Riparian Areas that contain a high proportion of impervious area, agricultural uses and road crossings, and minimal natural vegetation providing high quality habitat for water/wetland dependent species.

§ 6.2.4 **Highlands Open Waters Protection Buffer**

All Highlands Open Waters shall include a minimum 300-foot wide protection buffer, as measured from the edge of the discernable bank of the Highlands Open Waters feature, or from the centerline where no discernable bank exists. These buffers are included in the map of Highlands Open Waters at Exhibit 3 with respect to streams, rivers, ponds, lakes and reservoirs. With respect to wetlands and other Highlands Open Waters features not mapped in Exhibit 3 (e.g., seeps, springs), each shall include a 300-foot wide protection buffer measured from: for the Planning Area, a delineated wetlands line described in a Letter of Interpretation (LOI), or from a field-delineated boundary line for other features; or for the Preservation Area, the delineated limits of the feature, as indicated by a Highlands Resource Area Determination issued by the NJDEP.

§ 6.2.5 **Highlands Open Waters Buffer Standards**

Highlands Open Waters buffers shall be maintained in their undisturbed or pre-existing condition, unless a disturbance is approved in accordance with the provisions of this section.

A. ***Pre-existing Structures or Improvements.*** Any lawfully pre-existing structure or improvement located within a Highlands Open Waters protection buffer area as of the effective date of this Ordinance may remain and be maintained or rehabilitated, provided that the existing area of disturbance attributed to or associated with such structure or improvement shall not be increased.

B. ***Agricultural & Horticultural Land Uses.*** For purposes of this section, existing agricultural and horticultural uses, whether or not under active management or operation, shall not be included in any assessment of "previously disturbed" buffer areas with regard to proposals for non-agricultural development.

C. ***Approvals Subject to Outside Agency Approvals.*** Approval of any application involving the disturbance of a Highlands Open Waters buffer pursuant to this section shall not be construed to relieve the applicant from the applicable rules, regulations or legal requirements of any other agency having jurisdiction over such buffers, including but not limited to: the NJDEP (e.g., Freshwater Wetland Rules, N.J.A.C. 7:7, Stormwater Management Rules, N.J.A.C. 7:8, Flood Hazard Area Rules, N.J.A.C. 7:13, NJPDES Rules, N.J.A.C. 7:14A); a Soil Conservation District pursuant to its authority under New Jersey Soil Erosion and Sediment Control Act Rules, N.J.A.C. 2:90; or any county or other regional entity having authority pursuant to a Regional Stormwater Plan adopted by NJDEP under N.J.A.C. 7:8 and N.J.A.C. 7:15.

D. ***Municipal Stormwater Management Requirements.*** Where the provisions of this section are in conflict with the provisions of an adopted municipal stormwater management ordinance (Ordinance #06-15, effective May 2, 2006), the more restrictive of the two shall apply.

E. ***Stream Corridor Protection/Restoration Plan.*** Where the provisions of this section are in conflict with the provisions of an adopted Stream Corridor Protection/Restoration Plan, the provisions of the adopted Plan shall override.

F. ***Protection Buffer Expansion.*** The provisions of this section shall not be construed to preclude the imposition of a wider protection buffer requirement where site-specific analysis and evaluation by a qualified professional indicates that such expansion is essential to the protection of Highlands Open Waters, associated Riparian Areas, or the habitat of water or wetlands-dependent species (particularly in the case of rare, threatened or endangered species) located therein.

G. ***Preservation Area Standards.***

1. *Major Highlands Development.* Any disturbance of a Highlands Open Water buffer proposed in connection with a Major Highlands Development shall be authorized and regulated only by the NJDEP in accordance with NJDEP Preservation Area Rules (N.J.A.C. 7:38) and all other applicable requirements. The pertinent Preservation Area standards appear at G.3, below.

2. *Non-Major Highlands Development.* Any disturbance of a Highlands Open Water buffer proposed in connection with a development that does not constitute a Major Highlands Development shall meet the requirements provided at G.3, below (adapted from NJDEP Preservation Area Rules, N.J.A.C. 7:38), pursuant to the regulatory authority of this Ordinance and review by the appropriate municipal entity in accordance with the application procedures of Article 9.

3. *Disturbance Prohibited Except Linear Development.* Development is prohibited within all Highlands Open Waters and adjacent 300-foot buffers except for linear development, which shall be permitted only provided that there is no feasible alternative for the linear development outside the Highlands Open Waters or Highlands Open Water buffer.

   a) To address the "no feasible alternative for linear development" standard, the applicant shall demonstrate that there is no other location, design or configuration for the proposed linear development that would reduce or eliminate the disturbance to a Highlands Open Waters feature or the adjacent buffer. For proposed linear development that would provide access to an otherwise developable lot the applicant shall in addition, show that:

      (i) The proposed linear development is the only point of access for roadways or utilities to an otherwise developable lot; and

      (ii) Shared driveways are used to the maximum extent possible to access multiple lots.

   b) For a driveway, the applicant shall, in addition, demonstrate that:

      (i) If applicable, the applicant has made a good faith effort to transfer development rights for the lot based on the allocation of Highlands Development Credits certified by the Highlands Development Credit Bank, and has not obtained a commitment from the Highlands Development Credit Bank, a willing buyer, or a TDR receiving zone municipality to purchase said Highlands Development Credits;

      (ii) The lot has been offered for sale at an amount no greater than the specific fair market value to all property owners within 200 feet of the lot, and to the land conservancies, environmental organizations, the Highlands Council and all other government agencies on a list provided by the NJDEP (for Major Highlands Development) or the Highlands Council (for non-Major Highlands Development), at an amount determined in compliance with N.J.S.A. 13:8C-26j or N.J.S.A. 13:8C-38j, as applicable;

(iii) Said offering under G.3.b(ii) was made by letter sent by certified mail, return receipt requested, with a copy to the Highlands Council (using the form provided by the NJDEP for Major Highlands Development): a) disclosing the location on the lot of all Highlands resource areas (as defined in N.J.A.C. 7:38-1.4 for Major Highlands Development, or as provided by an RMP Consistency Determination Report developed using the Highlands Council website for non-Major Highlands Development); b) stating that an application to develop the lot has been filed; and c) enclosing a copy of a fair market value appraisal performed by a state-licensed appraiser based on the minimum beneficial economically viable use of the property allowable under local law; and

(iv) No reasonable offer for the lot has been received within a minimum period of 90 days.

c) Documentation required toward satisfaction of the provisions of b(ii) through b(iv) preceding, shall include:

(i) A list of the names and addresses of all owners of real property within 200 feet of the lot, as certified by the municipality, including owners of easements as shown on the tax duplicate;

(ii) A copy of each letter that the applicant sent under this subsection;

(iii) Receipts indicating that the letters were sent by certified mail;

(iv) A copy of all responses received. Each response shall be submitted to the NJDEP within 15 days after the applicant's receipt of the response (for Major Highlands Development) or, for non-Major Highlands Development, to the reviewing municipal authority at the time of the application seeking approval for the proposed disturbance;

(v) A copy of the fair market value appraisal sent to all property owners within 200 feet as required under b(ii) above; and

(vi) A copy of a written response or a resolution from the Highlands Council demonstrating that it has considered and rejected the offer.

d) An alternative shall not be excluded from consideration under this subsection merely because it includes or requires an area not owned by the applicant that could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed linear development.

e) After consideration of the information required in 3.a through 3.d above, the NJDEP will not issue an HPAA (for Major Highlands Development) and the reviewing municipal authority shall not approve any application pursuant to this subsection if, either: the applicant has refused a fair market value offer to purchase the property for which the driveway linear development is sought, or the NJDEP (for Major Highlands Development) or reviewing municipal authority (for non-Major Highlands Development), as applicable, finds that there is a reasonable alternative to the proposed linear development.

H. ***Planning Area Standards.***

1. *Prohibitions.* Disturbance of any portion of a Highlands Open Waters buffer is prohibited except as provided at H.2, below, or where associated with a buffer restoration or enhancement activity

designed to improve the functional value of the buffer, in accordance with the parameters listed at § 6.2.7, below.

2. *Allowances.* Disturbance of a Highlands Open Waters buffer shall be permitted only in connection with linear development regulated fully in accordance with the provisions as set forth at G.3 above for the Preservation Area, or within portions of such a buffer which have been previously disturbed, as demonstrated by submission of a property survey including at minimum, the items listed at 2.a, below. For purposes of this subsection, a previously disturbed buffer area is one in which one or more buffer functional values, as listed at § 6.2.7 below, have been and remain compromised by prior development activity (excluding agricultural or horticultural uses) as evidenced by the existence of buildings or other structures (including parking areas and driveways, whether paved or gravel), and including associated graded or compacted areas, areas stripped of natural vegetation, maintained lawn areas, areas of fill or excavation, and other similar features. Any new disturbance of such previously-disturbed areas shall occur only in accordance with the provisions of this subsection.

   a) All applications proposing a buffer disturbance pursuant to this subsection shall be accompanied by a property survey prepared by a licensed New Jersey Land Surveyor indicating: the metes and bounds of the subject property; the location and dimensions of existing buildings and other structures located thereon; the limits and extent of graded, compacted, filled or excavated areas; the limits and extent of areas stripped of natural vegetation, of maintained lawn areas; and any other site improvements provided in support of the prior development. The full extent of the proposed area of new disturbance shall be clearly indicated on the site or parcel plan submitted with the application, with the previously-disturbed area(s) illustrated on the same sheet using shaded or shadow outline features.

   b) Authorization for any new disturbance within a previously-disturbed area shall be approved only upon a finding by the reviewing board or other applicable municipal authority that the proposal meets the following requirements:

      (i) The proposed new disturbance will occur fully within the previously-disturbed area(s), as evidenced by both the property survey and the plan proposal submitted in support of the application;

      (ii) The proposal incorporates measures that will enhance the functional value of the affected buffer area by means such as, but not limited to: reducing impervious coverage, replacing maintained grass lawns with naturalized areas, upgrading soil erosion and sedimentation controls, and providing for planting of native trees, grasses, or other vegetation appropriate to the riparian environment that support the functions of the Highland Open Waters buffer;

      (iii) The proposal incorporates Low Impact Development techniques (see § 7.2) appropriate to the nature of the activity and the riparian aspects of the buffer area in question; and

      (iv) The proposed plan will enhance one or more of the buffer functions listed at § 6.2.7, below; will result in no net loss of any one of the listed buffer functions; and will provide an overall improvement in the functional value of the affected buffer area, when compared with pre-existing conditions.

c) The allowances of this subsection shall not be construed to authorize improvements or development activity of any kind within any portion of a Highlands Open Waters buffer if the previously-disturbed area, or any portion thereof, is found to be the result of unlawful activity.

§ 6.2.6 **Riparian Area Standards**

The provisions of this subsection shall apply only to those portions of the Riparian Area that extend beyond the limits of designated Highlands Open Waters and associated 300-foot Highlands Open Waters buffers. These provisions shall apply in all portions of the Highlands Area.

A. ***Protection Zone and Wildlife Management Sub-Zone.***

1. *Prohibitions.* Disturbance of any portion of a Highlands Riparian Area is prohibited except as provided at A.2, below, or where associated with an approved Riparian Area restoration or enhancement activity designed to improve the functional value of the Riparian Area, in accordance with the parameters listed at § 6.2.7, below.

2. *Allowances.* Disturbance of a Highlands Riparian Area shall be permitted only within portions of such Areas which have been previously disturbed, as demonstrated by submission of a property survey in accordance with 2.a, below. For purposes of this subsection, a previously disturbed Riparian Area is one in which one or more functional values, as listed at § 6.2.7 below, have been and remain compromised by prior development activity (excluding agricultural or horticultural uses) as evidenced by the existence of buildings or other structures (including parking areas and driveways, whether paved or gravel), and including associated graded or compacted areas, areas stripped of natural vegetation, maintained lawn areas, areas of fill or excavation, and other similar features. Any new disturbance of such previously-disturbed areas shall occur only in accordance with the provisions of this subsection.

   a) All applications proposing a Riparian Area disturbance pursuant to this subsection shall be accompanied by a property survey prepared by a licensed New Jersey Land Surveyor, including each of the items listed at § 6.2.5 H.2.a, above for Highlands Open Waters buffers, and a parcel or site plan indicating the full extent of the proposed new disturbance, with the previously-disturbed area(s) illustrated on the same sheet using shaded or shadow outline features.

   b) Authorization for any new disturbance within a previously-disturbed area shall be approved only upon a finding by the reviewing board or other applicable municipal authority that the proposal meets the criteria listed at § 6.2.5 H.2.b, above, with all requirements applicable to buffers therein applied instead to Riparian Areas.

   c) The allowances of this subsection shall not be construed to authorize improvements or development activity of any kind within any portion of a Highlands Riparian Area if the previously-disturbed area, or any portion thereof, is proven to be the result of unlawful activity.

B. ***All Other Zones and Sub-Zones.***

1. *High and Moderate Integrity Riparian Areas.* Disturbance shall be permitted only upon a finding by the reviewing board or other applicable municipal authority that the application includes or satisfactorily addresses each of the following requirements:

a) Demonstration that the proposed disturbance can neither be avoided nor reduced in extent or loss of quality, while adequately providing for the proposed use;

b) Demonstration that the proposed disturbance will result in no net loss of the quality of adjacent Highlands Open Waters, in accordance with § 6.2.7, below;

c) Demonstration that the proposed improvement plan minimizes impacts to the other functional values of the affected Riparian Area, as provided at § 6.2.7, below;

d) Incorporation of Low Impact Development techniques (pursuant to § 7.2) appropriate to both the proposed activity and the riparian nature of the site, and designed to minimize Riparian Area disturbances while maximizing retention of natural features and Riparian Area functional value; and

e) Submission, approval and implementation of a Riparian Area Mitigation Plan providing for restoration of impaired Riparian Areas located either, or in combination, in the following order of preference: on the site of the proposed disturbance, within the same HUC14 subwatershed as the site of the proposed disturbance, within the nearest interrelated HUC14 subwatershed having impaired or disturbed areas in need of restoration, or within the nearest unrelated HUC14 subwatershed having impaired or disturbed areas in need of restoration. Mitigation shall at minimum, be commensurate in scale, effect and extent with the disturbance approved pursuant to this subsection. A Mitigation Plan pursuant to this subsection shall be approved only where it provides improvements to one or more Riparian Area functions, as listed at § 6.2.7, below, while ensuring no net loss in the quality or contributory effect of an existing function.

2. *Low Integrity Riparian Areas.* In the case of any Riparian Area that is determined through a functional value assessment performed in accordance with the parameters at § 6.2.7, below, to contribute significantly to the protection of a Highlands Open Waters feature, any proposed disturbance shall occur only in accordance with the provisions at § 6.2.6 B.1, above, for High and Moderate Integrity Riparian Areas. Disturbance of any other Riparian Areas shall be permitted contingent upon satisfaction of § 6.2.6 B.1.d through B.1.e, above.

§ 6.2.7 **Functional Value Assessment Required**

Prior to the approval of any application proposing disturbance of a Highlands Open Waters buffer (with the exception of any Major Highlands Development approved pursuant to § 6.2.5 G.1, above) or of a Highlands Riparian Area regulated at § 6.2.6 above, a functional value assessment shall be performed to indicate the health and contributory value of the buffer or Riparian Area under existing conditions. All such assessments shall be completed by a qualified professional and shall include a general description and evaluation of each of the components listed herein below. In addition, assessments shall provide a net gain/loss projection concerning each of the functional values, as applicable, based upon anticipated post-disturbance conditions. Such projections shall take into account all facets of the proposed application to determine anticipated impacts, whether beneficial or detrimental to functional values. Key functional values include but are not limited to habitat, stormwater and flood water retention and filtration, water quality protection, temperature moderation, aquatic ecosystem integrity and channel integrity.

A. ***Habitat.*** A reduction in aquatic habitat functional value will occur in the event of a net loss of in-stream food sources or of access to such sources. A loss of terrestrial habitat functional value will occur in the event of a shift to a less valuable overall vegetative condition based on the following hierarchy from highest value to lowest: forest or wetland, scrub/shrub, pasture or meadow, agriculture, maintained lawn, unpaved impervious surface, other structures.

B. ***Water Quality.*** A degradation of this functional value will occur if, as a result of the proposed land conversions, pollutant loads increase to the Highlands Open Waters.

C. ***Temperature Moderation.*** A loss in temperature moderation functional value will occur if changes to the existing vegetation result in reduced shading of the Highlands Open Waters feature or of increased stormwater that discharges to Highlands Open Waters. Further, a loss in temperature moderation functional value may occur with the heating of stormwater by new structures and other impervious surface. Mitigation approaches include removing or relocating impervious surfaces away from the Highlands Open Water or ensuring that stormwater temperature is reduced through shading or other techniques.

D. ***Channel Integrity.*** A loss of channel integrity functional value will occur if the project will result in: the loss of bank stabilizing vegetation; an increase in the peak rate of stream flow, or in localized scour potential, which will increase stream bank and stream bed erosion; or the removal or burial of aquatic habitat in any substantial part of a stream bed.

§ 6.3 STEEP SLOPES

§ 6.3.1 Findings

Disturbance of steep slopes can trigger soil erosion and sedimentation, resulting in the loss of topsoil. Steep slope disturbance can contribute to siltation of wetlands, lakes, ponds and streams, which damages and degrades wetland and aquatic habitats. Steep slope disturbance can also result in alteration of drainage patterns, which when severe, can result in land slumping and landslides. Protection of steep slope areas is essential to the safety and stability of the human and non-human environment. Avoiding disturbance of steep slopes protects surface water quality, plant and wildlife habitat, and habitat quality. It also protects ridgelines, hillsides, and mountainous features that provide variation in the landscape, contribute to scenic viewsheds, offer unique recreational opportunities, and in many instances, define the character of an area or region.

The severity and extent of steep slopes, in conjunction with applicable soil characteristics and type and extent of land cover, all affect the potential for damages from the disturbance of steep slopes. The provisions of this section are intended to protect the citizens, buildings and structures, and the natural environment and living ecosystems of the community from harm due to disturbance of steep slopes.

§ 6.3.2 Applicability

The provisions of this section shall apply to the Steep Slope Protection Area (Exhibit 5) and to any other portion of the Highlands Area determined to consist of 5,000 square feet or more of contiguous steep slope(s) (as defined at § 3.2). For purposes of making such determinations, slopes shall be calculated for every two-foot contour interval over the full extent of the existing slope features, regardless of the location of property or other jurisdictional boundary lines. These provisions shall apply to all non-Major Highlands Development.

§ 6.3.3 Steep Slope Standards

A. ***Severely and Moderately Constrained Slopes.*** Disturbance of Severely Constrained and Moderately Constrained Slopes is prohibited, with the exception of that required in connection with a linear development. Such linear development, however, shall be permitted only in the event that there is no feasible alternative for such development outside of the Severely Constrained or Moderately Constrained Slopes.

1. To address the "no feasible alternative for linear development" standard, the applicant shall demonstrate that there is no other location, design or configuration for the proposed linear development that would reduce or eliminate the disturbance of Severely Constrained or Moderately Constrained Slopes. For proposed linear development that would provide access to an otherwise developable lot the applicant shall in addition, show that:

    a) The proposed linear development is the only point of access for roadways or utilities to an otherwise developable lot; and

    b) Shared driveways are used to the maximum extent possible to access multiple lots.

2. For a driveway, the applicant shall, in addition, demonstrate that:

    a) If applicable, the applicant has made a good faith effort to transfer development rights for the lot based on the allocation of Highlands Development Credits certified by the Highlands Development Credit Bank, and has not obtained a commitment from the Highlands Development Credit Bank, a willing buyer, or a TDR receiving zone municipality to purchase said Highlands Development Credits;

    b) The lot has been offered for sale at an amount no greater than the specific fair market value to all property owners within 200 feet of the lot, and to the land conservancies, environmental organizations, the Highlands Council and all other government agencies on a list provided by the Highlands Council, at an amount determined in compliance with N.J.S.A. 13:8C-26j or N.J.S.A. 13:8C-38j, as applicable;

    c) Said offering under A.2.b was made by letter sent by certified mail, return receipt requested, with a copy to the Highlands Council: a) disclosing the location on the lot of all Highlands resource areas as provided by an RMP Consistency Determination Report developed using the Highlands Council website; b) stating that an application to develop the lot has been filed; and c) enclosing a copy of a fair market value appraisal performed by a state-licensed appraiser based on the minimum beneficial economically viable use of the property allowable under local law; and

    d) No reasonable offer for the lot has been received within a minimum period of 90 days.

3. Documentation required toward satisfaction of the provisions of 2.b through 2.d preceding, shall include:

    a) A list of the names and addresses of all owners of real property within 200 feet of the lot, as certified by the municipality, including owners of easements as shown on the tax duplicate;

    b) A copy of each letter that the applicant sent under this subsection;

    c) Receipts indicating that the letters were sent by certified mail;

    d) A copy of all responses received. Each response shall be submitted to the reviewing municipal authority at the time of the application seeking approval for the proposed disturbance;

    e) A copy of the fair market value appraisal sent to all property owners within 200 feet as required under 2.c above; and

f) A copy of a written response or a resolution from the Highlands Council demonstrating that it has considered and rejected the offer.

4. An alternative shall not be excluded from consideration under this subsection merely because it includes or requires an area not owned by the applicant that could reasonably be obtained, utilized, expanded, or managed in order to fulfill the basic purpose of the proposed linear development.

5. After consideration of the information required in A.1 through A.4 above, the reviewing municipal authority shall not approve any application pursuant to this subsection if, either: the applicant has refused a fair market value offer to purchase the property for which the driveway linear development is sought, or the reviewing municipal authority finds that there is a reasonable alternative to the proposed linear development.

B. ***Constrained or Limited Constrained Slopes.*** Disturbance shall be permitted only upon a finding by the reviewing board or other applicable municipal authority that the application includes or satisfactorily addresses each of the requirements following:

1. Demonstration that the proposed steep slope disturbance can neither be avoided nor reduced in extent, while adequately providing for the proposed use.

2. Incorporation of Low Impact Development techniques (pursuant to § 7.2) appropriate to both the proposed activity and the steep slope environment, designed to reduce the extent of disturbance areas, stabilize areas that are disturbed, provide for stormwater management, and protect adjacent areas during site construction.

3. Development layout shall be designed to:

a) Minimize the need for landform grading and retaining structures;

b) Incorporate a cluster development format, where feasible, to minimize the extent of development on steep slopes; and

c) Disturb steep slopes (where such disturbance cannot be avoided) having the minimum potential for slope instability.

4. Site design shall:

a) Incorporate stabilization techniques that emphasize bioengineering;

b) Ensure minimized soil loss during and after construction through steep slope-appropriate soil erosion and sediment control techniques;

c) Prevent direct discharge of stormwater into Highlands Open Waters features;

d) Provide for control of stormwater velocity and volume such that no net increase in run-off rates occurs between pre- and post-conditions; and

e) Provide for maximum protection of existing trees, woodlands and surrounding natural vegetated areas.

§ 6.4 CRITICAL HABITAT

§ 6.4.1 Findings

Habitat protection is critical to maintaining biodiversity and providing for the needs of rare, threatened and endangered plant and animal species. Biodiversity is the variety of plant species, animal species and all other organisms found in a particular environment, and is a critical indicator of ecological integrity. This Ordinance establishes three categories of Critical Habitat in the Highlands Area, as set forth at § 4.3.5, above. Critical Wildlife Habitat includes lands containing habitat for rare, threatened and endangered wildlife species. Significant Natural Areas are those Natural Heritage Program (NHP) Priority Sites within the Highlands Region that are regionally significant due to the presence of either rare or endangered plant species or of unusual or exemplary natural ecological communities. Vernal pools are unique ecosystems that: provide critical breeding habitat for a variety of amphibian and invertebrate species; contribute to local biodiversity by supporting plants, animals and invertebrates that would otherwise not occur in the landscape; and contribute significant amounts of food to adjacent habitats.

Protection of Critical Habitat is essential to the well-being of a wide variety of plants and animals making up the unique ecosystems of the Highlands Area. Such protection is vital to the survival of numerous rare, threatened and endangered species. Protection of Critical Habitat is in the interest of the Township and the Highlands Region, as a whole, not only for its contributions to ecosystem stability and biodiversity, but for its role in the health and stability of the human environment, and its contributions to aesthetic values.

§ 6.4.2 Disturbance Prohibited

Disturbance of any portion of any lands located within designated Critical Habitat areas of the Highlands Area (Exhibit 6), including Critical Wildlife Habitat, Significant Natural Areas, and Vernal Pools, including the 1000-foot protection buffer, is prohibited, with the exception only of such disturbance as may be authorized by the NJDEP through issuance of an HPAA for Major Highlands Development in the Preservation Area. Until or unless the municipality has adopted a Habitat Conservation and Management Plan (see § 6.4.3), relief from this provision shall remain under the sole authority and jurisdiction of the Highlands Council. Any application proposing disturbance of Critical Habitat shall be neither deemed complete, nor reviewed or considered by the municipal Board or other applicable authority, until such time as authorization has been obtained from the Highlands Council in the form of a formal notification from the Executive Director of the Highlands Council, indicating by reference to specified plan drawings (including date, title, plan sheet number(s), and plan preparer) that the limits and extent of the disturbance proposed within the application has been approved.

§ 6.4.3 Habitat Conservation and Management Plan

Upon Township adoption of a Habitat Conservation and Management Plan, which, inclusive of any accompanying ordinances, rules or regulations, shall be approved by the Highlands Council, all applications proposing disturbance of a Critical Habitat area shall be filed, reviewed and considered in accordance with the provisions and criteria provided therein.

§ 6.5 CARBONATE ROCK

§ 6.5.1 Findings

The Carbonate Rock Area identifies portions of the Highlands Area underlain by carbonate bedrock or known to contain karst topography. Solution (by water) of carbonate rocks such as limestone and dolomite by surface water or ground water can cause surface depressions and development of irregular, sub-surface rock topography known as karst. These conditions make such areas unstable and susceptible to subsidence and surface collapse. Karst conditions can lead to formation of sinkholes, sinking streams, enlarged bedrock

fractures, caves and underground streams. Sinkholes function as funnels, directing surface water runoff into karst aquifers with little or no attenuation of transported contaminants. Stormwater basins, septic system leach fields, sewers, agricultural runoff, lawn runoff, underground pipelines, and soil disturbance all can contribute contaminants directly to ground water through karst features. Soils in sinkhole bottoms may be thin or non-existent. In addition to potential for ground water contamination, karst features present a threat to public safety. Sinkholes and other karst formations can undermine buildings and structures, including infrastructure facilities, such as roads, natural gas lines, water supply and sewer lines, septic systems and stormwater basins.

The provisions of this section are intended to protect the citizens, buildings and structures, and the natural environment, particularly the ground water resources of the Highlands Area from the potential for harm or physical damage associated with land development in the Carbonate Rock Area.

§ 6.5.2 **Applicability**

The provisions of this section shall apply to all proposed development in the Carbonate Rock Area (Exhibit 7), including that in both the Preservation Area and the Planning Area.

§ 6.5.3 **Geotechnical Investigation Required**

Any Application for Development within the limits of the Carbonate Rock Area shall be preceded by a Geotechnical Investigation, as provided in this subsection. No such development application shall be deemed complete or considered for review by the applicable land use board or other designated municipal authority until such time as the Geotechnical Investigation program described herein has been satisfactorily completed, as certified by the individual(s) designated to review and make such findings on behalf of the municipality (see C., below).

A. ***Purpose.*** The purpose for the Geotechnical Investigation is to locate karst features that may be affected by the development proposal, to reveal the potential threats to public health, safety or welfare, or ground water quality that may result, and to determine the most appropriate ways to address these issues in the design and implementation of the project proposal.

B. ***Professional Required.*** The Geotechnical Investigation must be conducted by a qualified professional, such as geologist, soils or geotechnical engineer, or other licensed professional engineer having experience in karst area investigations and associated development.

C. ***Municipal Review.*** Review and oversight of Geotechnical Investigations shall fall under the purview of the Municipal Engineer. For purposes of this subsection, the "Municipal Engineer" shall refer to the qualified professional engineer or geological expert designated by the municipality to provide review and recommendations concerning matters of a geotechnical nature.

D. ***Program.*** The investigation shall occur in two phases, wherein the results of the first shall determine the need for and extent of requirements, pertinent to the second.

1. *Phase I Investigation.*

a) The investigation shall commence with completion of a Phase I Geological Investigation which shall identify the geologic nature of the materials underlying the site. This assessment shall be based on review of existing available information, such as prior investigation reports on properties proximate to the subject parcel(s), aerial photography, as well as on-site field investigation.

b) Phase I findings shall be provided in a summary report including: a description of the site geology; ground water conditions such as depth to water table and direction of flow; an evaluation of the potential impact of the project on ground water quality; and identification of any karst features observed. In addition, the report shall include the geological professional's recommendations as to whether, in light of the proposed development plan, a Phase II Geological Investigation should be prepared and submitted, and whether any portion of the requirements of the Phase II Investigation should be waived.

c) The applicant's geological professional and the Municipal Engineer shall review the applicant's Phase I findings in the field.

d) The Municipal Engineer shall determine whether a Phase II Investigation shall be required, based on the data submitted and the recommendation of the applicant's geological professional. The Municipal Engineer may grant a waiver from parts of the Phase II geotechnical evaluation or from part or all of the reporting requirements if in his/her professional opinion, such aspects are not relevant or necessary in formulating the proposed development plan for the site or property in question.

e) In the event that a Phase II Investigation is not required, the Municipal Engineer shall provide written certification that the applicant has satisfactorily completed the requirements of the Geotechnical Investigation. Such certification shall include any conditions pertinent to the issuance of such certification that the Municipal Engineer may deem necessary or appropriate to ensure the geotechnical sufficiency of the proposed development plan. All materials developed in the course of the Phase I Investigation, inclusive of the Municipal Engineer's evaluation report(s) and recommendations, shall be provided to the municipal board or authority having jurisdiction over the development application.

2. *Phase II Investigation.*

a) The purpose of the Phase II Investigation is to delineate and define karst features noted or suspected in the Phase I Geological Investigation, to evaluate the effects of those features on the proposed development, and to propose methods of protection and mitigation if needed.

b) A Phase II Investigation Plan shall include a narrative describing the types of features to be investigated, their locations, the types of direct/indirect methods to be used and the reasons for their use. Indirect methods include the use of aerial photography, satellite imagery and geophysical procedures, such as ground penetrating radar, electrical conductivity, electrical resistivity, magnetic field, very low frequency measurement, gravity field recording and seismic velocity measurements. Direct methods shall include test pits, test probes, test borings or other appropriate methods. A plan indicating the areas of investigation, proposed locations of testing and types of testing shall accompany the Phase II Investigation Plan.

c) After the Phase II Investigation Plan has been approved by the Municipal Engineer, formal notification shall be issued to the applicant authorizing the commencement of the testing procedures. The development site shall be subject to inspection by the Municipal Engineer or designated municipal inspectors at any time. All testing data and results shall be made available to municipal officials and inspectors upon request. Any samples taken shall be properly preserved and shall be available for examination by the Municipal Engineer until final action is taken by the approval authority on the application.

d) At the completion of the Phase II Investigation, a formal Geotechnical Evaluation Report shall be submitted which shall include a geologic interpretation of the observed subsurface conditions, including soil and rock type, geologic unit, jointing, faulting, voids, fracturing, grain size and sinkhole formation. In addition:

(i) The Report shall provide all information gathered in the course of the testing protocol, including, as applicable: logs of all borings, test pits, and probes including evidence of cavities; loss of drilling fluid circulation during drilling; voids encountered and similar cavities; type of drilling or excavation technique employed; drawings of monitoring or observation wells as installed; time and dates of explorations and tests; reports of chemical analyses of on-site surface and ground water; names of individuals conducting tests if other than the applicant's designated professional; analytical methods used on soils, water samples, and rock samples; a 1" = 100' scale topographic map of the site (at a contour interval of two feet) locating all test pits, borings, wells, seismic or electromagnetic conductivity or other geophysical surveys; and analysis of the ground water including any potentiometric maps constructed from site data or aquifer tests with rate and direction of flow.

(ii) The Report shall include an evaluation of the geotechnical findings in relation to the proposed development, and recommendations for the planning, engineering design and construction techniques to be utilized in accomplishing the project. All design recommendations shall minimize, to the greatest extent practical, impacts upon water quality and structural hazards associated with carbonate rock formations. The engineering solutions proposed to minimize environmental and structural impacts must be clearly detailed.

e) The Municipal Engineer shall consider the data, formal reports, maps, drawings and related submission materials and determine whether the proposed design satisfactorily provides:

(i) Sufficient design, construction and operational information to ensure that the proposed development of the tract will not adversely affect the health, safety and welfare of the community;

(ii) Specific details demonstrating that the proposed method of development of the tract will minimize any adverse effects on the quality of surface or subsurface water, and will not alter the character of surface and/or subsurface water flow in a manner detrimental to known on-site or off-site conditions;

(iii) Specific details ensuring that design concepts and construction and operational procedures intended to protect surface and subsurface waters will be properly implemented; and

(iv) Specific details on inspection procedures to be followed during construction and after project completion.

f) The Municipal Engineer shall, within 45 days of submission of the Phase II Geotechnical Evaluation Report, provide the applicant with a written response, evaluating the adequacy of the Investigation, the sufficiency of information to make the necessary findings, and a review and recommendations, if any, concerning the geotechnical aspects of the proposed development plan and associated construction and mitigation techniques.

g) Upon a finding of sufficiency, the Municipal Engineer shall certify that the applicant has satisfactorily completed the Geotechnical Investigation, and all materials developed in the course of the Investigation process, inclusive of the Municipal Engineer's evaluation report(s) and recommendations, shall be provided to the municipal board or authority having jurisdiction over the development application.

§ 6.5.4 **Carbonate Rock Drainage Area**

Applicants seeking approval of development activities in subwatersheds that drain directly to the Carbonate Rock Area shall conduct a Phase I Geological Investigation. The Phase I investigation and Municipal Engineer's review shall ensure that any proposed development activity having potential to alter the types, volumes, or rates of runoff entering the Carbonate Rock Area, shall be designed to prevent the formation or enlargement of sinkholes, the introduction of contaminated surface water into ground water aquifers via sinkholes or cavities, or the lowering of the water table.

§ 6.5.5 **Conditions of Development Application Approval**

Where a Geotechnical Investigation is required in connection with a development application that will subsequently be filed with the Planning Board or Zoning Board of Adjustment, the Municipal Engineer shall provide recommendations to the Board concerning the application during the course of its review and decision making. For all other applications requiring a Geotechnical Investigation, the recommendations and requirements of the Municipal Engineer shall have final force and authority and shall be incorporated into any approval issued by the reviewing authority.

A. In no case shall an Application for Development, in either the Carbonate Rock Area or in a subwatershed that drains directly to the Carbonate Rock Area, be approved unless the applicant has demonstrated to the satisfaction of the reviewing board or other municipal authority (in consultation with the Municipal Engineer) that all potential hazards to public health and safety, structures and ground water are fully addressed and mitigated, with the maximum emphasis given to nonstructural measures, such as avoidance of modifications to the karst features, use of dry swales to divert run-off away from karst features, minimization of site disturbance, and removal or minimization of impervious surface.

B. The following conditions shall accompany the approval of any Application for Development in the Carbonate Rock Area:

1. The location of all sinkholes, disappearing streams or karst features shown on documents submitted under the Phase I and/or Phase II Geologic Investigations shall be drawn on all preliminary and final plats, site plans and parcel plans. These shall also note any site remediation techniques to be utilized to stabilize any solution channels or subsidence karst features.

2. In the event a previously unidentified carbonate rock feature posing a geologic hazard is discovered during construction, the applicant shall:

a) Report the occurrence of the hazard to the Municipal Engineer within twenty-four (24) hours of discovery;

b) Halt construction activities which would affect the geologic hazard;

c) Prepare a report on the geologic hazard which analyzes the impact of the hazard and details a remediation plan for review and approval by the Municipal Engineer;

d) After obtaining approval from the Municipal Engineer, perform necessary remediation of the hazard to prevent or minimize damage to buildings, structures, utilities, driveways, parking areas, roadways and other site improvements, and to minimize pollution of the ground water;

e) Repair any damage to improvements and restore ground cover and landscaping;

f) In those cases where the hazard cannot be repaired without adversely affecting the site plan or subdivision, the applicant shall file an amended application for a site plan or subdivision approval in compliance with the provisions of the municipal ordinances.

§ 6.6 LAKE MANAGEMENT AREA

§ 6.6.1 Findings

The Lake Management Area (Exhibit 3) contains all lakes located within the Highlands Area that have a surface area greater than ten (10) acres and the areas that drain to such lakes, including the three management tiers established at § 4.3.7. Highlands Area lakes contribute to the character and natural beauty of the Township, comprising a unique feature that is important to both the community and the surrounding region. Highlands Area lakes provide important recreational opportunities, support aquatic ecosystems, and moderate local atmospheric temperatures. Lakes represent an important interconnection in the wider system of rivers, streams and underground springs and aquifers that support life and contribute to community water supplies. Lakes can be harmed by pollutant sources in the watershed area draining to them. Polluted lakes can, in turn, damage downstream streams and rivers. Overdeveloped, damaged and poorly managed shore land areas can degrade water quality, harm lake ecosystems, diminish natural aesthetic values, and cause an overall loss of property values for lake communities. It is the intent of the provisions of this section to ensure that Highlands Area lakes receive the highest level of protection while at the same time providing for recreational access and opportunity, and development and redevelopment activities that are compatible with and appropriate to lake environments.

§ 6.6.2 Shoreland Protection Tier

A. ***Highlands Open Waters Buffer Rules Apply.*** The Shoreland Protection Tier encompasses the lands surrounding a Lake Management Area lake that lie within 300 feet of its shoreline. As such, these lands coincide with and are defined as Highlands Open Waters buffers pursuant to § 6.2.5, above. All provisions applicable to Highlands Open Waters buffers as provided therein, shall apply fully to the Shoreland Protection Tier of any lake in the Lake Management Area.

B. ***Planning Area, Previously Disturbed Areas.*** Where an applicant proposes a disturbance pursuant to § 6.2.5 H.2., above, the following additional parameters shall apply:

1. Where the application involves alteration of a previously disturbed shoreline, it shall be authorized only where demonstrated that the disturbance is the minimum necessary to provide for a water dependent recreational use such as a beach, dock, fishing pier, or boat house.

2. Where shorelines have already been developed using "hardscape" materials such as bulkheads, rip-rap or walls, enhancement measures shall include installation of a vegetated filter strip along the hardscape feature where feasible, to attenuate stormwater flow and minimize the potential for shoreline erosion.

3. The control and where necessary, removal of algae and non-native invasive aquatic weeds that cause nuisance conditions for lake users shall be permitted in all Zones and Sub-Zones, subject to NJDEP requirements.

4. Where emergent aquatic vegetation exists, where there is little or no natural wave action, disturbance to reeds and other wetland species that are rooted below the high water mark shall be avoided, or where avoidance is infeasible shall be minimized and mitigated. Mitigation measures shall result in a return to conditions as near a natural condition, as practicable. In circumstances where the previously existing condition is degraded (for example, an instance where the wetland species are invasive such as common reed), the proposed plan shall provide a net gain in habitat value of the replanted species.

5. Existing, natural shoreline vegetation within 50 feet of the shoreline shall be protected and preserved except for a minimum area permitted for water dependent recreational facilities or for the removal of exotic, invasive species and their replacement with native species. Restoration of native vegetation shall be required along any affected shoreline, where development is proposed within existing disturbed areas located within 25 feet of the shoreline.

6. Construction of new structures within previously disturbed portions of the Shoreland Protection Tier, other than water-dependent recreational facilities, is prohibited within fifty (50) feet of the shoreline.

7. Installation of any new on-site septic system within previously disturbed portions of the Shoreland Protection Tier shall incorporate a minimum setback of 150 feet from shoreline, regardless of whether another potential area of disturbance exists at a lesser setback.

8. The width and length of piers and docks shall minimize the disturbance of shoreline, shoreline vegetation and wetland vegetation to the extent feasible with due consideration for safety. Piers and docks may be held in common to reduce the total number of new docks and piers.

9. Boat lifts shall be preferred over structural docks and landing as a means of providing more light to the waters below and shall elevate boats a minimum of one (1) foot above high water.

§ 6.6.3 **Water Quality Management Tier**

Any application proposing a disturbance within the Water Quality Management Tier shall be authorized only provided the reviewing board or other applicable municipal authority finds that the proposal protects lake water quality, by implementation of the requirements of this subsection. The Water Quality Management Tier consists of all lands draining into a Highlands lake that lie within 1,000 feet of its shoreline, subsuming the whole of the Shoreland Protection Tier. As such, these provisions shall not be construed to waive or obviate the requirements of either the preceding section § 6.6.2, or of § 6.2.5 above concerning Highlands Open Waters buffers. These provisions shall apply to any proposed disturbance in the Planning Area, to any project, development, or activity not classified as Major Highlands Development in the Preservation Area, and, to the extent more restrictive or encompassing than NJDEP Preservation Area Rules (including but not limited to N.J.A.C. 7:38-3.6, "Highlands open waters," N.J.A.C. 7:38-3.7, "Flood hazard areas"), to Major Highlands Developments in the Preservation Area.

A. ***Water Quality Protection Requirements.*** To prevent or minimize continuous pollutant sources that can contribute pollutants overland or through ground water to the lake from greater distances than the Shoreland Protection Tier, the following measures shall be incorporated into all development proposals:

1. All disturbed parcels shall be provided with landscape or garden elements which retain stormwater, minimizing the potential for increases in the volume, time of concentration, or concentrated flow of runoff from the property. Such elements shall be designed to ensure to the maximum extent feasible, that during larger storms, water is released through overland sheet flow across a vegetated, naturally landscaped area.
2. All new development shall direct runoff from roofs, driveways and patios into landscape or garden elements which retain and filter stormwater, or to infiltration basins, trenches or other such appropriate stormwater management devices.
3. Stormwater management plans shall be designed to direct run-off away from the shoreline and to avoid stormwater discharges directly to the lake to the maximum extent feasible.
4. Stormwater shall be directed to a stormwater treatment train that cleans and reduces the rate of runoff to the maximum extent possible. Stormwater treatment trains shall maximize the use of swales with natural vegetation, infiltration mechanisms or constructed wetlands, and discharge through a constructed wetland or other channel that maximizes aeration and cleaning of water to the maximum extent feasible.
5. The discharge of stormwater shall be through sheet flow, where feasible, which may require the construction of an outlet that disperses the water over a substantial distance at a constant elevation so that water sheet flows over the top.

B. ***Approvals Subject to Outside Agency Approvals.*** Nothing herein shall be construed to relieve the applicant from the applicable rules, regulations and design requirements of any other agency having jurisdiction, including but not limited to the NJDEP (e.g., Freshwater Wetland Rules, N.J.A.C. 7:7, Stormwater Management Rules, N.J.A.C. 7:8, Flood Hazard Area Rules, N.J.A.C. 7:13, NJPDES Rules, N.J.A.C. 7:14A), a Soil Conservation District acting pursuant to Soil Erosion & Sediment Control Act Rules (N.J.A.C. 2:90), or any county or other regional entity having authority pursuant to an adopted Regional Stormwater Plan.

C. ***Optional Additional Measures.***

1. The use of green roofs is encouraged in the Lake Management Zone, to clean and slow the release of stormwater.
2. Clustering is also encouraged, where it results in a greater buffer between the lake and any new septic system or other land disturbance than would otherwise be feasible.

§ 6.6.4 Scenic Resources Tier

The Scenic Resources Tier includes lands surrounding Highlands lakes that lie within 300 feet of the shoreline (the Shoreland Protection Tier) plus lands within 1,000 feet of the shoreline that fall within the viewshed observable from the opposite shoreline. The provisions of this section, applicable to any development permitted in the Scenic Resources Tier, apply to both the Preservation Areas and the Planning Area. These requirements regarding the Scenic Resources Tier are applied in addition to all requirements applicable to the Shoreland Protection Tier and Water Quality Management Tier.

A. ***Scenic Resources Tier Mapping.*** For purposes of this section, applicants may establish and indicate in submission materials that all lands falling within 1,000 feet of the shoreline of a Highlands lake (coincident with the Water Quality Management Tier) constitute the designated Scenic Resources Tier viewshed. In the alternative, the actual limits of the affected viewshed area must be delineated and mapped for submission by a licensed Land Surveyor, Professional Engineer, Landscape Architect, or other qualified professional. Such delineations shall be based upon the topography of the lands surrounding the Highlands lake, with the highest observable elevations from the opposing shoreline

forming the viewshed perimeter. For purposes of this Ordinance, observable elevations shall be those projected by use of topographic maps, regardless of any intervening building, structure, tree or other natural vegetation, along sight lines drawn radially from relevant vantage points along the opposing shoreline; such vantage points being sufficient in number and location to yield the full extent of the potential view. The viewshed perimeter shall in no location be less than the 300-foot depth of the Shoreland Protection Tier.

B. ***Protection Standards.*** For all lakes with public access (i.e., with shorelines that are not entirely privately-held and managed through a lake association), and for privately-held and managed lakes to the extent not contrary to statutory law or previously approved lake community development plans, the applicant must demonstrate that the protection of visual and scenic resources in the Scenic Resource Tier is achieved through implementation of the following requirements:

1. The application must clearly illustrate and assess the extent to which the proposed development will be visible from the opposite shore of the lake. If the applicant demonstrates that the proposed development will be completely obscured from view by virtue of existing topographic features (specifically excluding buildings, structures, trees or other vegetation) intervening between the opposite shoreline and the development site, the remaining provisions of this subsection shall not apply.

2. Buildings shall be screened from view by trees and other native plant material to the maximum extent practicable and compatible with the existing character of the lake community, to minimize the visual intrusion on views from the opposing shorelines.

3. The massing of structures shall be designed and oriented to minimize lot disturbance, including cut and fill work, and to avoid blockage of views to the maximum extent possible.

4. The exteriors of all new or redeveloped buildings shall be designed and constructed with materials that minimize visual intrusion on the lake community character.

5. The clearing of trees shall be limited to the minimum extent needed to develop the site.

6. Any exterior lighting shall utilize full cut-off fixtures with light directed downward and away from the shoreline to the extent feasible.

C. ***Highlands Scenic Resources.*** In the event that an Application for Development within the Scenic Resources Tier involves a lot or lots that either contain, or lie adjacent to a property that contains a Highlands Scenic Resource as illustrated in Exhibit 9 and listed in the Highlands Element of the Master Plan, the provisions of § 6.12 below, shall apply.

§ 6.7 WATER CONSERVATION & DEFICIT MITIGATION

§ 6.7.1 Findings

The water resources of the Highlands Area are critical to supporting the life of the community. Ground water supplies represent the primary source of potable water in the Highlands Region and provide base flow to the Region's streams. The importance of ensuring the high quality and sustainable use of Highlands ground water supplies cannot be overstated. The availability of clean water for human use is critical to the life and economic vitality of the Highlands Area. The availability of water for ecological purposes is critical to sustaining the aquatic ecosystems of streams, ponds and lakes as well as the riparian flora and fauna that depend upon them. When water withdrawals exceed the rate of recharge, ground water supplies diminish,

making access more difficult, reducing reliability, and ultimately leading to loss of the potable water source. Overuse of ground water reduces stream base flows, impairs ecological function and integrity, and threatens the long-term reliability of potable water supplies that the community depends upon. The provisions of this section are intended to protect ground water supplies from depletion resulting from unsustainable use. Where ground water supplies are already depleted, these provisions require measures to enhance and restore this vital resource.

§ 6.7.2 **Applicability**

The provisions of subsection § 6.7.3 below, shall apply to all development within the Highlands Area. The remaining provisions of this section shall apply to any development application proposing a new or increased use of potable or nonpotable water derived from: a) any ground water source in a Highlands Area HUC14 subwatershed, whether through a public community or non-community water supply system well, a non-public well, or an individual private well; or b) any surface water source in a Highlands Area HUC14 subwatershed that is not associated with a safe yield determined by the NJDEP through a water allocation permit. These remaining provisions (§ 6.7.4 through § 6.7.7) shall apply to both the Preservation Area and the Planning Area, with the exception only of an application for Major Highlands Development requiring issuance of an HPAA from the NJDEP. Specifically excluded from these provisions (§ 6.7.4 through § 6.7.7), are modifications or improvements to existing uses and structures that result in neither, for residential development (or any residential portion thereof) an increase in the number of residential units, nor, for non-residential development (or any non-residential portion thereof), an increase in water demand by an average of 400 gallons per day or more.

§ 6.7.3 **Water Conservation Requirements**

All development proposals shall incorporate as applicable, the following water conservation measures to promote sound resource use, reduce supply deficits, and reduce the need for additional utility infrastructure:

A. Meet all applicable building code requirements for the use of water conservation fixtures and appliances in new or rehabilitated structures;

B. Provide automatic controls based on rain sensors (or soil moisture) for all new and replacement lawn irrigation systems, as required by the electrical subcode at N.J.A.C. 5:23-3.16;

C. Design all non-potable irrigation water uses to ensure that only the necessary amounts of water are used to achieve optimum plant growth, to the maximum extent practicable;

D. Provide for internal recycling or beneficial reuse of reclaimed water in new commercial development projects, to the maximum extent practicable;

E. Rely on stormwater for irrigation purposes to the maximum extent practicable, including but not limited to methods recommended by the U.S. Green Building Council through its Leadership in Energy and Environmental Design (LEED) program;

F. Reduce water losses to the maximum extent practicable, in the rehabilitation of on-site water supply utility infrastructure, through such means as application of American Water Works Association/International Water Association water loss analysis methods (AWWA Manual M-36 or most recent version).

§ 6.7.4 **Net Water Availability**

Net Water Availability has been calculated by the Highlands Council for each HUC14 subwatershed located within or partially within the Highlands Area (Exhibit 10). Expressed in million gallons per day (MGD), the values assigned to each HUC14 subwatershed derive from subtracting consumptive and depletive surface and

ground water uses for a baseline year, from total ground water availability. Where Net Water Availability figures are negative numbers, the subwatershed is identified as a Current Deficit Area, meaning existing uses exceed sustainable supplies. The map of Net Water Availability by HUC14 Subwatershed provided at Exhibit 10 is herewith adopted and incorporated as a component of this Ordinance.

§ 6.7.5 **Conditional Water Availability**

For subwatersheds designated as Current Deficit Areas, the Highlands Council has assigned a limited amount of Conditional Water Availability, the use of which is conditioned upon satisfying certain mitigation requirements. Jurisdiction over the use of Conditional Water Availability lies solely with the Highlands Council and shall apply in the case of Current Deficit Areas until such time as a Water Use and Conservation Management Plan for such subwatersheds has been adopted and put into effect.

§ 6.7.6 **Water Use and Conservation Management Plan**

Where a Highlands Council-approved Water Use and Conservation Management Plan has been established for a municipality, HUC14 subwatershed, or group of HUC14 subwatersheds, any development application involving the use of water derived from such subwatershed(s) shall be regulated fully in accordance with the requirements of such Plan. Adherence to the provisions of an adopted Water Use and Conservation Management Plan shall constitute satisfactory compliance with all of the provisions of this section, including those pertaining to Net Water Availability and Conditional Water Availability.

§ 6.7.7 **Absence of Water Use and Conservation Management Plan**

In the absence of a Highlands Council-approved Water Use and Conservation Management Plan for a municipality, HUC14 subwatershed, or group of HUC14 subwatersheds, any development application involving the use of use water derived from such subwatershed(s) shall be subject to requirements of this subsection.

A. ***Net Water Availability.*** The provisions of this subsection shall apply to any development application proposing the use of Net Water Availability. These requirements shall apply regardless of whether such water is supplied from an on-site well or through a water supply utility.

   1. *Highlands Council Findings Required.* No application shall be deemed complete or considered for review by the applicable Board until or unless the Highlands Council has determined that the proposed consumptive or depletive water use will not exceed the remaining Net Water Availability for the source HUC14 subwatershed(s). Such finding shall be provided by formal notification from the Executive Director of the Highlands Council, indicating by reference to specified application submittals (as required by the Highlands Council) that the Highlands Council has reviewed the specific development proposal at issue, and authorizes the increased use of potable or non-potable water therein specified.

   2. *Findings Determinative.* Any application revised from that reviewed by the Highlands Council pursuant to A.1, above, shall in no case be approved by the reviewing Board unless the proposed use of Net Water Availability remains equal to or less than that authorized by the Highlands Council through its formal findings. Nothing herein shall be construed to preclude the applicant from seeking a revised Highlands Council determination as to Net Water Availability, however.

B. ***Conditional Water Availability.*** The provisions of this subsection shall apply to any development application proposing the use of Conditional Water Availability. These requirements shall apply regardless of whether such water is supplied from an on-site well or through a water supply utility.

   1. *Highlands Council Findings Required.* No application shall be deemed complete or considered for review by the applicable Board until or unless a finding has been issued by the Highlands Council

indicating that: a) the proposed consumptive or depletive water use will not exceed the remaining Conditional Water Availability for the source HUC14 subwatershed(s); b) that the applicant has correctly determined the associated mitigation requirement; c) that the proposed development plan will incorporate or otherwise provide for acceptable methods of deficit mitigation; and d) that the mitigation measures proposed by the applicant can be reasonably anticipated to meet the required level of mitigation. Such findings shall be provided by formal notification from the Executive Director of the Highlands Council, indicating by reference to specified application submittals (as required by the Highlands Council) that the Highlands Council has reviewed the relevant components of the development proposal and authorizes it to proceed to the municipal review authority.

2. *Findings Determinative.* Any application revised from that reviewed by the Highlands Council pursuant to B.1, above, shall in no case be approved by the reviewing Board unless: a) the proposed use of Conditional Water Availability remains equal to or less than that authorized by the Highlands Council through its formal findings; b) the proposed methods of deficit mitigation are consistent with those so approved; and c) the anticipated levels of mitigation are sufficient to meet the associated mitigation requirements. Nothing herein shall be construed to preclude the applicant from seeking a revised Highlands Council determination as to Conditional Water Availability, however.

3. *Deficit Mitigation Requirements.* Applicants proposing the use of Conditional Water Availability shall comply with the deficit mitigation requirements herein.

   a) The mitigation requirement applicable to any development project derives from the Highlands Council *Scaled Mitigation Requirements* table, provided below (Table 1). The figures represent the applicable recharge requirement as a percentage of consumptive/depletive water use.

Table 1. Scaled Mitigation Requirements

	Proposed Consumptive or Depletive Water Use (gpd)				
Deficit (MGD)	<= 1,000	1,001 – 5,000	5,001 – 10,000	10,001 – 25,000	>25,000
0.0001 – 0.050	125%	125%	125%	150%	150%
0.051 – 0.100	125%	125%	125%	150%	150%
0.101 – 0.250	125%	125%	150%	150%	175%
0.251 – 0.500	125%	150%	150%	175%	200%
0.501 – 1.000	125%	150%	175%	175%	200%
1.000 – 7.100	150%	175%	175%	200%	200%

   b) Deficit mitigation must be provided within the same HUC14 subwatershed as from which the source Conditional Water Availability derives. If the project and water source are not located in the same subwatershed, however, only mitigation measures that benefit the source HUC14 subwatershed may be utilized to mitigate the deficit.

   c) The approval of any application proposing off-site deficit mitigation measures, whether through enhanced recharge or offsets from water conservation, shall be subject to the receipt of approvals from the Highlands Council and any other entities having jurisdiction over the activities proposed at the off-site location (whether located within or outside of the municipality).

   d) On-site deficit mitigation measures, whether from enhanced recharge or offsets from water conservation shall be subject to the following criteria:

(i) Water Conservation Measures. Water Conservation Measures may be credited toward mitigation requirements only with respect to existing land uses with consumptive or depletive water uses. (Such measures must be incorporated into the design of any new improvements, in accordance with § 6.7.3, above.) Approval of any application proposing such measures shall be conditioned upon implementation of the measures prior to receipt of any Certificate of Occupancy or Approval for the project improvements. If conservation measures include such methods as reduced irrigation of landscaping, protective covenants (e.g., homeowner's association by-laws) or other such legal mechanisms must be established to ensure their enforceability.

(ii) Recharge Measures. The applicant shall include the proposed mitigation measures in the project stormwater management plan, stormwater operation and maintenance manual, and applicable components of site design. The stormwater management plan and O&M manual shall achieve permanent maintenance and routine monitoring of the mitigation measure(s) so that the required rate of recharge is continuously achieved.

e) Any application for which deficit mitigation requirements cannot be achieved, shall not be approved by the reviewing authority. The applicant may modify any such proposal, however, to reduce the consumptive or depletive water uses to a level at which achieving deficit mitigation requirements is feasible. All applicants shall demonstrate compliance with these standards through submission of a Deficit Mitigation Plan, as provided below.

4. *Deficit Mitigation Plans.* All applicants proposing deficit mitigation shall prepare and submit Deficit Mitigation Plans for approval which shall include the following elements:

a) Detailed justification for the proposed Conditional Water Availability use and documentation that the amount of consumptive or depletive use is minimized (including the conservation measures outlined in subsection § 6.7.3, above).

b) Engineering plans and drawings of mitigation facilities proposed to provide the necessary mitigation in the source HUC14 subwatershed.

c) Sufficient information to demonstrate that the mitigation measures are individually feasible and in the aggregate will meet or exceed the mitigation requirement.

d) Sufficient information to substantiate that the facility will recharge the ground water table such that it reasonably can be expected (e.g., using general ground water flow models) to support aquifer recharge, or to support stream flow with a travel time in excess of one month.

e) Proposed implementation schedule demonstrating compliance with the following timeframe targets:

(i) Satisfaction of mitigation requirements within one (1) year of issuance of building permit(s) if the consumptive or depletive water use is less than 20,000 gpd in the Planning Area or 10,000 gpd in the Preservation Area, on average.

(ii) Satisfaction of mitigation requirements within a longer time period for larger amounts, up to five (5) years from issuance of building permit(s), but no later than upon initiation of the consumptive or depletive water use, except for projects that involve a combination of high current water deficits and large proposed consumptive and depletive water uses as shown in the shaded areas of the table *Scaled Mitigation Requirements* (Table 1., above), in

which case, on-site mitigation shall be successfully completed prior to initiation of the water use but may be implemented concurrent with on-site construction. Off-site mitigation shall be successfully completed prior to any on-site construction.

(iii) Mitigation requirements may be phased in keeping with the level of consumptive and depletive water use that actually occurs based on phased construction of a project.

f) Proposed operation, maintenance and monitoring requirements to ensure that sufficient recharge is maintained over time. These requirements shall at a minimum be sufficient to comply with N.J.A.C. 7:8 stormwater maintenance requirements.

5. ***Conditions of Approval.*** As a condition of any approval of a development application, inclusive of the proposed Deficit Mitigation Plan, pursuant to this subsection, the applicant shall:

a) Demonstrate that the entity designated to implement the Deficit Mitigation Plan is qualified and capable of carrying out the plan, regardless of the timeframe involved.

b) Provide proof of acceptance of all responsibilities for implementation of the Deficit Mitigation Plan by the responsible entity.

c) Provide a cost estimate for implementation of the Deficit Mitigation Plan, inclusive of a 10% contingency.

d) Provide performance and maintenance guarantees in accordance with all municipal and MLUL requirements in amounts as approved by the municipal engineer, sufficient to ensure the installation and implementation of all required Deficit Mitigation Plan measures. Such guarantees shall be available to the municipality and secondarily, to the Highlands Council for implementation of the necessary deficit mitigation measures should the applicant fail to properly implement the measures according to the Deficit Mitigation Plan schedule. If the implementing entity is a public agency, the commitment must be in the form of a binding resolution or ordinance of the governing body, and the cost of implementation must be bonded to ensure sufficient resources.

e) Ensure that the responsible entity shall report annually to the Highlands Council and the municipality regarding implementation of the Deficit Mitigation Plan until fully implemented, unless reporting is achieved through effectuation of a Water Use and Conservation Management Plan.

f) Establish an ongoing system of such reporting which must operate until the relevant subwatershed is no longer in deficit, or until the reporting responsibility is absorbed into implementation of an approved Water Use and Conservation Management Plan.

§ 6.8 PRIME GROUND WATER RECHARGE AREAS

§ 6.8.1 Findings

Prime Ground Water Recharge Areas are those lands within a HUC14 subwatershed that most efficiently provide, in the aggregate, 40 percent of total drought recharge volume for the HUC14 subwatershed. Protection of such areas is vital to maintaining the quality and quantity of the ground water resources upon which both human and non-human communities in the Highlands Area heavily rely. It is the intent of the provisions herein to ensure that Prime Ground Water Recharge Areas of the Highlands Area receive the

highest possible protection from intrusion to protect both the recharge capacity that they provide and the quality of the ground water supplies that they replenish.

§ 6.8.2 **Applicability**
The provisions of this section shall apply to any development application involving the Prime Ground Water Recharge Area (Exhibit 7), whether in the Preservation Area or the Planning Area.

§ 6.8.3 **Standards**
Disturbance of Prime Ground Water Recharge Area (PGWRA) by any regulated development shall be permitted only upon a finding by the reviewing board or other applicable municipal authority that the proposal complies with the provisions of this subsection.

A. ***Avoidance.*** The proposed disturbance cannot be avoided. Development shall not occur in Prime Ground Water Recharge Areas unless either, the entirety of the subject property is located within a Prime Ground Water Recharge Area and thus cannot be avoided, or the disturbance represents the only viable alternate means to avoid Critical Habitat, Highlands Open Waters buffers, Moderately Constrained Steep Slopes, or Severely Constrained Steep Slopes, to the extent that these resources are also present upon the subject property.

B. ***Minimization.*** The proposed disturbance cannot be minimized. Where total avoidance is not feasible, total recharge area disruption (i.e., alteration of natural recharge patterns or volumes) shall not exceed 15% of the Prime Ground Water Recharge Area located within the affected parcels, placed where feasible on those parts of the PGWRA having the lowest relative recharge rates and the least potential for aquifer recharge based upon site analysis.

C. ***Low Impact Development.*** The proposal incorporates Low Impact Development practices. Low Impact Development practices (see § 7.2) shall be used in the design of the development proposal to reduce total recharge disruption to the minimum feasible, within the 15% cap.

D. ***Mitigation.*** The proposal includes a PGWRA Mitigation Plan. Any development application involving disturbance of a Prime Ground Water Recharge Area shall be accompanied by a mitigation plan, providing for an equivalent of 125% of pre-construction recharge volumes for that portion of the Prime Ground Water Recharge Area that will be disturbed. The recharge mitigation shall occur within the following areas, in order of priority: (1) the same development site to the maximum extent feasible; (2) the same HUC14 subwatershed; or (3) where no feasible option exists in the same HUC14 subwatershed, an interrelated HUC14 subwatershed approved by the Highlands Council.

§ 6.8.4 **Potential Contaminant Sources**
Where any use or structure classified as a Minor Potential Contaminant Source (PCS) (as listed at APPENDIX C) or as a Major PCS #17 (as listed at APPENDIX B) is proposed to be located or expanded within a Prime Ground Water Recharge Area, the standards of approval provided at subsection § 6.9.3 below, shall apply in addition to the preceding requirements.

§ 6.9 WELLHEAD PROTECTION

§ 6.9.1 **Findings**
Protection of ground water resources that directly provide water to potable water supply wells is vital to the public health, safety and welfare of the community. It is also of primary importance to ensure continued availability of clean drinking water to all that rely upon it. Through regulation of land use, physical facilities and other activities within Wellhead Protection Areas (WHPAs), the potential for ground water

contamination can be reduced by preventing the introduction and migration of pollutants into ground water sources that supply water supply wells.

§ 6.9.2 **Applicability**
The provisions of this section shall apply to all proposed development activities in designated Wellhead Protection Areas (Exhibit 7) in the Highlands Area, whether in the Preservation Area or the Planning Area.

§ 6.9.3 **Potential Contaminant Sources**
Where any permitted use or structure classified as a Major or Minor Potential Contaminant Source (PCS) (as listed at APPENDIX B or APPENDIX C) is proposed to be located or expanded within a Wellhead Protection Area, the standards of this subsection shall apply. These conditions shall not be construed to waive or obviate any rules, regulations, or other requirements pertinent to such uses that may derive from outside agencies having jurisdiction, such as the NJDEP.

A. ***Best Management Practices.*** All Potential Contaminant Sources shall be designed in a manner that prevents the unintentional discharge of toxic or hazardous pollutants to ground water, surface water bodies, or the land surface from internal areas, loading and storage areas, transfer areas, etc. Best management practices include but are not limited to: primary and secondary containment; and prevention of contact between pollutants and precipitation, stormwater and flood waters. Any application involving a PCS shall be approved only upon demonstration that these provisions have been satisfactorily addressed. Such findings shall be based upon review and recommendations by a qualified professional (e.g., Environmental Engineer), unless the application is accompanied by one of the following permits and authorizations, any of which shall be considered equivalent to the best management practices of this Ordinance. As applicable to the PCS involved, these may also be submitted in lieu of an Operations and Contingency Plan, as otherwise required under subsection § 6.9.3.B, following.

1. A NJPDES permit approved by NJDEP pursuant to N.J.A.C. 7:14A;

2. An underground storage tank approved by NJDEP under N.J.A.C. 7:14B;

3. A Discharge Prevention, Containment and Countermeasure Plan (DPCC) approved by NJDEP pursuant to N.J.A.C. 7:1E;

4. A hazardous waste remedial action approved by NJDEP pursuant to N.J.A.C. 7:26B, 26C, 26D or 26E, or by the United State Environmental Protection Agency pursuant to the Resource Conservation Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA);

5. A hazardous waste facility approved by NJDEP pursuant to N.J.A.C. 26G;

6. Approval by the SCD of a Farm Conservation Plan or Resource System Management Plan pursuant to N.J.A.C. 2:92, (see § 6.10.4 below and APPENDIX F);

7. A solid waste facility approved by NJDEP pursuant to N.J.A.C. 26H; and

8. A high-density Animal Waste Management Plan, an Animal Waste Management Plan, or a Comprehensive Nutrient Management Plan, as appropriate, developed pursuant to N.J.A.C. 2:91.

B. ***Operations and Contingency Plans.*** Unless one of the permits or approvals listed at § 6.9.3 A.1-8, above is provided, as a condition of approval of any application involving a Potential Contaminant

Source within a WHPA, the applicant shall prepare and obtain approval of an Operations and Contingency Plan in accordance with the requirements herein. No Certificate of Occupancy or Approval (as appropriate) for the development shall be issued until or unless the qualified professional authorized to administer these provisions verifies that the Operations and Contingency Plan has been approved and is on file with the appropriate entities.

C. ***Approval of Operations & Contingency Plans.*** The proposed Operations and Contingency Plan shall be submitted to the Board of Health (or equivalent acting authority), Fire Department, Police Departments and Office of Emergency Management, as applicable. These agencies shall review and make any appropriate recommendations for approval or modifications of the Operations and Contingency Plan. The applicant shall incorporate the recommendations to produce a final document, for review by the designated municipal professional and each of the participating agencies. The designated municipal professional shall coordinate the agencies' responses to ensure that the final Plan addresses all concerns of substance. Upon approval by the designated municipal professional, the Plan shall be filed with all applicable entities and put into effect as indicated therein. In the event of any irreconcilable issue in developing or finalizing the Plan, it shall be provided as proposed, to the reviewing Board, along with the recommendations of the designated professional, the participating agencies, and the applicant and applicant's agents and professionals. A decision by the reviewing Board shall be final.

D. ***Required Content of Operations & Contingency Plans.*** An Operations and Contingency Plan shall be developed, where required under this Ordinance, for each Potential Contaminant Source or group of Potential Contaminant Sources (where multiple sources exist within a single facility owned and operated by a single entity) and shall address the following elements. An Operations and Contingency Plan for a Minor Potential Contaminant Source must demonstrate that the potential for a significant discharge is minimized to the extent practicable. An Operations and Contingency Plan for a Major Potential Contaminant Source must demonstrate that the potential for a significant discharge is the lowest technologically feasible:

1. Documentation of the Major and Minor Potential Contaminant Sources for the site;

2. Types and quantities of hazardous substances or wastes that may be used, discharged or stored on site;

3. Means used to prevent the spillage, leakage or discharge of such materials;

4. Means to be used to contain or remedy accidental spillage, leakage, discharge or migration of such materials from the site directly or indirectly into ground water;

5. At a minimum, utilize best management practices as defined by § 6.9.3 and as specified by NJDEP and the United States Environmental Protection Agency, including but not limited to the regulations and guidance in the following areas: Discharge Prevention Containment and Countermeasures [N.J.A.C. 7:1E-4.2 (or most current)], Spill Prevention Control and Countermeasures [40 CFR 112.3 et seq.(or most current)], Stormwater and Non-point Source Pollution Control Best Management Practices Manual [NJDEP, April 2004 (or most current)].

6. Specific training of facility personnel to contain or remedy accidental spillage, leakage, discharge or migration of such materials from the site directly or indirectly into ground water, or surface water bodies or the land surface that provide recharge to the underlying aquifer.

7. Procedures for notifying the appropriate administrative authorities, including but not limited to NJDEP, the local fire and police, local office of emergency management and the Board of Health, regarding any spillage or discharge of such materials; and

8. Demonstration that the proposed Potential Contaminant Sources are designed to employ best management practices to the maximum extent feasible.

E. An Operations and Contingency Plan for the following Potential Contaminant Sources, where required under this Ordinance, shall not be required to meet the requirements of D.7 or D.8, above unless the designated professional determines that the Potential Contaminant Source constitutes a significant threat to ground water or water supply quality due to particular site conditions:

1. Individual Subsurface Disposal System (i.e., septic system) leach field in Tier 2 or Tier 3 of a WHPA, or within a PGWRA;

2. Individual Subsurface Disposal System (i.e., septic system) leach field where such systems are subject to a routine, mandatory inspection and pumping schedule pursuant to Board of Health Ordinance [*insert citation*];

3. Cemeteries that are closed to future interments;

4. Underground heating oil storage tanks with a capacity of less than 250 gallons;

5. Sanitary sewer lines and manholes;

6. Stormwater infiltration basins for non-industrial land uses;

7. Dry wells for non-industrial land uses;

8. Stormwater conveyance lines for non-industrial land uses; or

9. Any category of existing, proposed or replacement Major or Minor Potential Contaminant Source where the Operations and Contingency Plan commits to having no potential contaminants stored, discharged, manufactured or used on-site.

F. Any information included in an Operations and Contingency Plan which constitutes proprietary commercial or financial information, or is otherwise protected from disclosure under 7 CFR Part 205.501 and 205.504 or the Open Public Records Act, N.J.S.A. 47:1A-1 et seq., shall be held confidential by all local entities participating in its review or implementation, subject to the limitations set forth therein.

§ 6.10 AGRICULTURAL RESOURCES

§ 6.10.1 Findings

The Highlands Area contains fertile soils, receives plentiful rainfall, and is characterized by a moderate climate favorable to agricultural and horticultural production. The agricultural industry is vital to the state, the region and the community not only for local provision of agricultural products, but for the economic benefits associated with agricultural production and for maintenance of the rural character associated with agricultural lands. It is the intent of this section to promote Sustainable Agriculture (as defined at § 3.2) in the Highlands Area by ensuring the long-term sustainability of agricultural resources and the viability of the agricultural

industry. These provisions are intended to ensure a healthy agricultural environment and a sufficient agricultural land base, by protecting farmland and farm soils, promoting farmland preservation, and providing the allowances necessary to permit and support farming and farm operations.

§ 6.10.2 **Applicability**
The provisions of this section apply to agricultural and horticultural uses in the Highlands Area. These provisions shall apply to both the Preservation Area and the Planning Area.

§ 6.10.3 **[*Reserved*]**

§ 6.10.4 **Conditions of Approval**
The approval of any application for agricultural or horticultural development in the Highlands Area is subject to specific requirements concerning the development and implementation of farm conservation plans, as provided in this subsection.

A. ***Preservation Area.*** The approval of any proposal for agricultural or horticultural development in the Preservation Area is subject to specific requirements of the Highlands Act, as provided at APPENDIX E, enforceable by the NJDA or the local Soil Conservation District in accordance with the NJDA Agricultural Development in the Highlands Rules (N.J.A.C. 2:92, APPENDIX F).

B. ***Planning Area.*** The approval of any proposal for agricultural or horticultural development in the Planning Area is subject to the specific requirements listed at B.1 through B.3, below, which are enforceable by the Highlands Council. As a condition of any local approval, the owner or operator of the Farm Management Unit or his/her agent shall be required to obtain a release from the Highlands Council indicating that these requirements have been or will, by formal agreement or other appropriate means, be satisfactorily addressed. This condition shall be satisfied only by submission of a copy of formal notice of such release issued by the Executive Director of the Highlands Council. No permit(s) shall be issued and no land disturbance in connection with the approval shall be permitted until or unless this condition has been satisfied.

1. *Farm Conservation Plan.* The development and implementation of a Farm Conservation Plan (prepared by the USDA NRCS, TSP, appropriate agent, or NJDA staff, and approved by the local SCD) is required as a condition of approval for any agricultural or horticultural development that would result in the increase, since the date of enactment of the Highlands Act (August 10, 2004), either individually or cumulatively, of new agricultural impervious cover of greater than three percent (3%) but less than nine percent (9%) to the total land area of a Farm Management Unit (as defined at § 3.2 above). Solar panels (as defined at Article 3) shall not be included in any calculation of agricultural impervious cover pursuant to this subsection.

2. *Resource Management System Plan.* The development and implementation of a Resource Management System Plan (prepared by the USDA NRCS, TSP, appropriate agent, or NJDA staff, and approved by the local SCD) is required as a condition of approval for any agricultural or horticultural development that would result in the increase, since the date of enactment of the Highlands Act (August 10, 2004), either individually or cumulatively, of new agricultural impervious cover by nine percent (9%) or greater to the total land area of a Farm Management Unit (as defined at § 3.2 above). Solar panels (as defined at Article 3) shall not be included in any calculation of agricultural impervious cover pursuant to this subsection.

3. *Plan Requirements.* Any Farm Conservation Plan required pursuant to this section shall be prepared in conformance with Sections III and IV of the June 1, 2005 NRCS New Jersey Field Office Technical Guide (available electronically at http://www.nrcs.usda.gov/technical/efotg/), as may

be amended and supplemented by the NRCS, and shall include all items required under N.J.A.C. 2:92-3.1, for same (see applicable provisions at APPENDIX F). Any Resource Management Systems Plan required pursuant to this section shall be prepared in conformance with all Sections of the same Guide, inclusive of all items required under N.J.A.C. 2:92-4.1, as also provided in APPENDIX F.

§ 6.10.5 **Right to Farm**

Nothing in these provisions or in the whole of this Ordinance shall be construed to alter or compromise the goals, purposes, policies and provisions of, or lessen the protections afforded to farmers by, the Right to Farm Act, P.L.1983, c.31 (C.4:1C-1 et seq.), and any rules or regulations adopted pursuant thereto.

§ 6.10.6 **Approvals Subject to Outside Jurisdiction**

The provisions of this section shall not be construed to alter or obviate the requirements of any other applicable state or county laws, rules, or regulations, including specifically N.J.A.C. 2:92, Agricultural Development in the Highlands, as promulgated by the New Jersey Department of Agriculture, or those of the SADC, the CADB, the Soil Conservation Districts, or the NJDEP.

§ 6.11 HISTORIC, CULTURAL & ARCHAEOLOGICAL RESOURCES

[*Note: Adoption of regulations protecting Highlands Historic, Cultural and Archaeological Resources is encouraged but not required. To include such regulations, complete the sections below and supplement, as desired; otherwise delete this section in its entirety. Township will finalize prior to adoption.*]

§ 6.11.1 **Findings**

The historic, cultural and archaeological resources of the Highlands Area form an essential component of its character and aesthetic quality. They preserve a part of the history of the Township Highlands Area and provide a link to its past. They are representative of significant people, places and events in history and provide vital information about what life was like in the community in earlier times. Preservation of these resources is in the interest of the citizens of the Township, the surrounding region, the State of New Jersey, and in many instances, the nation as a whole. These resources provide a rich source of information from which to learn about the growth and development of our communities, our culture, our science and technology, and our way of life. They provide an educational opportunity, contribute to the community's sense of place, and add context to our everyday lives. It is the intent of this section to provide for the protection and preservation of the historic, cultural and archaeological resources of the Highlands Area.

§ 6.11.2 **Applicability**

The provisions of this section shall apply to any development application involving property which is located either, among those identified as containing Highlands Historic, Cultural and Archaeological Resources at Exhibit 9 (and listed as such in the Highlands Element of the Master Plan), or which lies adjacent to any property containing or partially containing such Resources. These provisions shall apply to both the Preservation Area and the Planning Area, with the exception only of any application for Major Highlands Development requiring issuance of an HPAA from the NJDEP. [*Such applications are subject to comprehensive review for historic preservation protections under NJDEP Preservation Area Rules.*]

§ 6.11.3 **Standards and Criteria**

[Municipality to develop and complete as desired. Standards should include provisions and criteria applicable to review of development applications involving or potentially affecting sites/districts listed in the Highlands Historic, Cultural and Archaeological Resources Inventory.]

§ 6.12 SCENIC RESOURCES

§ 6.12.1 Findings

The scenic resources of the Township Highlands Area are part of the unique landscape that defines the Highlands Region. These resources are essential to the character and aesthetic quality of the Highlands Area and of the wider Region. Protecting these resources and maintaining the visual integrity and scenic beauty of noteworthy viewsheds and natural and cultural features of significance in the Highlands Region adds social, economic, and environmental benefits to the community. It is the intent of these provisions to ensure the protection of Highlands Area Scenic Resources, both from disturbances that may alter or damage such resources directly, or by intrusion(s) into scenic viewsheds that provide visual access to them, and of which they are a part.

§ 6.12.2 Applicability

The provisions of this section shall apply to any development application involving property which is located either, among those identified as containing a Highlands Scenic Resource pursuant to Exhibit 9 (and listed as such in the Highlands Element of the Master Plan), or which lies adjacent to any property containing or partially containing such Resources. These provisions shall apply to both the Preservation Area and the Planning Area.

§ 6.12.3 Referral to Highlands Council Required

Any development application involving a lot or lots covered by § 6.12.2 above, shall be neither deemed complete nor reviewed or considered by the municipal authority until or unless the proposal has been approved by the Highlands Council. Such authorization shall be in the form of a formal notification from the Executive Director of the Highlands Council, indicating by reference to specified plan drawings (including date, title, plan sheet number(s), and plan preparer) that the application has been approved by the Highlands Council and may proceed to the municipal review authority.

§ 6.12.4 Exceptions

At such time as the municipality has, pursuant to all applicable provisions of the MLUL (N.J.S.A. 40:55D-1 et seq.) established an Historic/Scenic Resources Preservation Commission authorized to survey, advise and make recommendations concerning scenic resources, adopted an Historic/Scenic Resources Preservation Ordinance, listed a Resource included among the Highlands Scenic Resources (Exhibit 9) in the Historic/Scenic Preservation Element of the Master Plan, and by ordinance designated such Resource as a historic/scenic site or district in accordance with duly-established criteria, referral to the Highlands Council of a development application involving the lot or lots on which such Resource is located need not occur until after completion of all facets of the local review have taken place, and such referral shall instead be a condition of any approval of the application.

ARTICLE 7. HIGHLANDS AREA GENERAL REGULATIONS

§ 7.1 AFFORDABLE HOUSING

Nothing in this Ordinance shall be construed to waive, obviate, modify or otherwise exempt any covered development project, or any person proposing or involved in such project, from the applicable provisions of the municipal ordinances and any other regulations adopted consistent with the Fair Housing Act to ensure opportunity for low- and moderate-income housing. Neither shall the provisions of this Ordinance be construed to waive or exempt projects that include such housing, from adherence to the requirements of this Ordinance. Regulations applicable to the provision of low- and moderate-income housing in the municipality may be found at § 54-45 through § 54-47 of the underlying municipal zoning ordinance.

§ 7.2 LOW IMPACT DEVELOPMENT

§ 7.2.1 **Applicability**

The following provisions shall apply to all development applications involving property in the Highlands Area, whether in the Preservation Area or the Planning Area.

§ 7.2.2 **Standards**

A. Applicants shall demonstrate that the project design process incorporates conservation design planning, including the following steps:

   1. Preparation of an existing features and site analysis plan, including identification of Highlands Area resources and Resource Areas;

   2. Evaluation of site context through identification of the physical and community character of the surrounding area;

   3. Selection of open space conservation areas, where applicable, that maximize the retention of resource values, provide connections to existing trails, open spaces or greenways, and incorporate natural features and characteristics as site amenities;

   4. Establishment of development yield (e.g., residential, retail, office) and apportionment of septic system yield, net water availability, and water supply and sewer utility availability, as applicable, and in keeping with all density and intensity requirements of § 5.3, above;

   5. Lay out of building lots, if applicable, and incorporation of low impact development design techniques for site design, stormwater management and resource protection; and

   6. Incorporation of resource standards and smart growth guidelines.

B. Development applications must achieve stormwater management in compliance with § 7.4, below, including the municipal stormwater management ordinance established in compliance with the municipal stormwater NJPDES permit under N.J.A.C. 7:14A and 7:8, and all applicable NJDEP standards and requirements.

C. Relief from the strict application of the provisions of the underlying municipal Zoning Ordinance applicable to site design shall be considered where necessary to provide for incorporation of smart

growth principles and low impact development techniques such as use of shared parking and driveway areas, biofiltration swales, rainwater capture and reuse, and reduced road or driveway widths. Where such deviations will minimize or eliminate adverse impacts to Highlands natural resources, these benefits shall be given significant weight in the analysis of approval criteria.

D. The site preparation plan shall limit clearing, grading and soil compaction to the minimum required to construct the project in accordance with the approved plans, inclusive of area for construction equipment maneuvering, while ensuring protection of mature trees and habitat outside of the site development area.

E. Landscaping shall use native, drought-tolerant (other than where used in rain gardens, biofiltration swales and other stormwater management facilities), disease-resistant plants, allowing for natural landscaping wherever feasible, and shall under no circumstances include invasive species.

F. Building orientation and design shall be designed to take advantage of micro-climate conditions, to the maximum extent feasible, to maximize solar gain for winter heating, and to minimize solar gain during high temperature summer conditions except where desirable for the construction of solar energy systems. Other energy-efficient features shall be considered and incorporated into site layouts and buildings, as appropriate.

G. The applicant shall ensure reuse and recycling of building materials, to the extent possible, when development involves demolition.

H. All low impact development features shall be maintained through a monitoring and maintenance plan, with procedures for replacing such features as necessary.

§ 7.3 CONSERVATION RESTRICTIONS

§ 7.3.1 **Applicability**

The following provisions shall apply to all applications involving property containing any of the following Highlands Resources, Highlands Resource Areas, or Special Protection Areas: forested portions of the Forest Resource Area (delineated in accordance with APPENDIX A), Highlands Open Waters, Highlands Open Waters buffers, Steep Slopes (any area containing 5,000 square feet or more of contiguous Steep Slopes, or any portion of such an area), Steep Slope Protection Area, Critical Habitat, Prime Ground Water Recharge Area, and Lake Management Area Shoreland Protection Tier. These provisions shall apply in both the Preservation Area and the Planning Area; whether or not any disturbance of such Resources or Areas is proposed; and regardless of the type of application at issue (e.g., zoning or building/construction permit application requiring prior resource review and approval, Highlands Resource Permit application, Application for Development). These standards shall also apply in the case of any specific requirement for a Conservation Restriction as set forth by the provisions of this Ordinance. Nothing herein shall be construed to preclude the imposition of conservation restrictions in the case of Highlands Resources, Resource Areas, or Special Protection Areas not listed above or where not specifically required otherwise, where the reviewing Board or other applicable authority finds that such restrictions are necessary to protect the particular resource(s) at issue, or to ensure the public health, safety, or general welfare of the community.

§ 7.3.2 **Standards**

Approval of any application shall require that the applicant commit to and perfect a conservation restriction protecting the Highlands Resources, Highlands Resource Areas, or Special Protection Areas existing (or as remaining after an authorized disturbance) on the subject property in accordance with the requirements that follow. In the case of an application pertaining to a single-family home that is neither exempt nor excluded

from this Ordinance, such restrictions shall be so drawn and described as to permit the future use of any underutilized portion of either, the disturbed area coverage allowance or the impervious surface area allowance, provided as exclusions pursuant to § 2.1.1, above.

A. The conservation restriction shall run with the land on which the approved project is located, shall apply to all lots subdivided from that land and sold or transferred to other persons, and shall be binding upon the landowner and his or her successors in interest. To ensure that notice of the conservation restriction is provided to all present and future interested parties, the landowner or contract purchaser receiving the approval shall:

    1. Record the conservation restriction(s) in the office of the County Clerk or Register, as applicable prior to commencement of any work authorized under the approval; and

    2. Ensure that a copy of the conservation restriction is provided to the Highlands Council and to the Municipal Clerk with a request that it be placed in the file for the lot containing the approved project.

B. The conservation restriction(s) shall describe and include all regulated features on the property, including any required mitigation. The proposed easement(s) shall be depicted in the proposed plans, inclusive in the case of major site plans and major subdivisions, of plan notes specifying the location and construction of clear and permanent on-site monuments, such as concrete posts, designed to minimize the need for land clearing and avoid obstruction of wildlife movement.

C. The conservation restriction shall include either:

    1. A survey and a metes and bounds description of the entire restricted area; or

    2. A parcel plan showing the survey boundary lines to the full extent of the subject property, and indicating the limits of the existing disturbance area, any additionally-approved disturbance area, and of any area excluded pursuant to § 2.1.1, with the indication that no further development or disturbance shall be permitted; or

    3. In the case of no proposed encroachment upon Highlands Resources or Areas, and availability of Highlands Council GIS mappings for all such Resources and Areas present upon the property, copies of all such mappings applicable to the parcel.

D. In the case of preserved farmland or dedicated open space, the conservation restriction shall be enforceable by the Highlands Council and the municipality, and at least one of the following, as appropriate: the SADC or CADB, the NJDEP Green Acres Program, or a qualified non-profit land trust organization. All such easements shall require periodic monitoring to ensure that on-going land use and management practices remain protective of the subject resources.

E. All other conservation restrictions shall be enforceable by the municipality and, for Planning Area lands, by the Highlands Council, and for Preservation Area lands, the NJDEP and the Highlands Council.

F. The language to be included in the conservation restriction shall be reviewed and approved by the Municipal or Board Attorney, as applicable.

§ 7.3.3 Deed Notice for Exemptions

In the case of any Municipal Exemption Determination authorized pursuant to § 9.1.2 B.1.b below, filing of a fully executed, certified deed notice shall satisfy the requirement that the balance of the property be protected from future disturbance, provided it incorporates each of the components listed herein.

A. Clear identification of the name(s) and address(es) of the owner(s) in fee of the property;

B. Designated tax block and lot number(s), street address(es), municipality and county of location of the property;

C. Reference to the Municipal Exemption Determination (by date, numbering if applicable) issued and under which the deed notice is being filed;

D. Description of the approved area of ultimate disturbance and the impervious surface area, with verification that these consist of less than one (1) acre and one-quarter (1/4) acre, respectively;

E. For properties of one acre or more in area, metes and bounds delineation indicating the portion of the property for which the ultimate disturbance has been authorized;

F. Agreement to abide by the ultimate disturbance and impervious surface limits imposed, any furtherance thereof rendering the Municipal Exemption Determination null and void; and

G. Notice that the owner(s) and subsequent owner(s) and lessees shall cause all leases, grants, and other written transfers of interest in the property to contain provisions expressly requiring all holders thereof to take the property subject to the limitations therein set forth.

§ 7.4 STORMWATER MANAGEMENT

§ 7.4.1 Applicability

The provisions of this section shall apply to any development application involving property in the Preservation Area or the Planning Area, with the exception of any application requiring NJDEP issuance of an HPAA for Major Highlands Development in the Preservation Area.

§ 7.4.2 Standards

A. ***Carbonate Rock Areas.*** Stormwater management plans shall be provided in connection with any application proposing development within a Carbonate Rock Area. Such plans shall be in full compliance with the provisions of § 6.5 above, and shall be approved only upon demonstration that potential hazards to public health and safety, structures and ground water quality due to concentrated surface water flows that dissolve carbonate rock, have been eliminated or otherwise addressed to the satisfaction of the reviewing engineer (or qualified professional). Development plans must indicate the means and methods by which such discharge shall be mitigated, with the maximum emphasis on use of nonstructural measures and avoidance of modifications to the karst features.

B. ***Beneficial Stormwater Reuse.*** Development applications involving water demands for recreational uses, non-agricultural irrigation, and other non-potable uses shall demonstrate maximum practical stormwater reuse to minimize both the volume of stormwater discharges and the water demand sought for such purposes.

C. ***Regional Stormwater Plans.*** The stormwater management aspects of any development plan shall comply with all applicable components of any regional stormwater management plans adopted by NJDEP pursuant to N.J.A.C. 7:8 and N.J.A.C. 7:15.

D. ***Total Maximum Daily Loads (TMDLs)***. Applications shall be designed in compliance with any TMDL adopted by NJDEP (pursuant to N.J.A.C. 7:15) that has also been adopted by the municipality in compliance with the municipal stormwater management ordinance as established pursuant to the municipal stormwater NJPDES permit under N.J.A.C. 7:14A and 7:8.

E. ***Prime Ground Water Recharge Areas.*** Where disturbance of Prime Ground Water Recharge Area (PGWRA) is permitted under § 6.8, above, the applicant shall demonstrate compliance with all provisions of § 5.2 and § 6.9, above.

F. ***Water Quality.*** To the maximum extent feasible, the plan shall ensure recharge of clean stormwater rather than contaminated stormwater. Where runoff from contaminated areas is unavoidable, the applicant shall incorporate Low Impact Development (see H., below) and other Best Management Practices standards to minimize the discharge of stormwater-entrained pollutants to ground and surface waters.

G. ***Wellhead Protection Areas (WHPA).*** Any stormwater management structure located within a WHPA shall be permitted only in compliance with the provisions of § 5.2 and § 6.9, above.

H. ***Low Impact Development (LID).*** To the maximum extent feasible, LID techniques shall be incorporated into the design of all development proposals, to preserve, mimic and enhance the natural hydrologic cycle, drainage patterns and natural land cover existing on the site, including but not limited to:

1. Implementation of on-site stormwater management features that maintain, restore and enhance the pre-existing natural drainage patterns of the site;

2. Achievement of an on-site stormwater capture performance standard of 80% for average annual precipitation, using low impact development design techniques preferentially, and structural stormwater measures only to the extent necessary;

3. Limitations on the amount of impervious cover on a site as a means to protect and increase stormwater infiltration and reduce stormwater runoff;

4. Use of a "design with nature" approach where natural features are used or enhanced to achieve management of runoff volume, rate and quality of stormwater;

5. Use of grass channels, dry swales, wet swales, infiltration basins, bio-swales and water gardens, green roofs, and other low impact approaches to attenuate and control stormwater and provide multiple environmental benefits; and

6. Minimization of: a) disturbances to natural vegetation and topography; b) exposure of stormwater runoff to pollutant-generating land uses; and c) alterations in the hydrologic response to precipitation through natural patterns.

7. Integration of stormwater management design features with public spaces, existing and proposed landscape features, and buffers, to the extent applicable.

§ 7.5 SPECIAL ENVIRONMENTAL ZONE

§ 7.5.1 Findings

Lands within the Highlands Special Environmental Zone are those having the highest priority ranking for preservation based on the Highlands Council Resource Assessment. This assessment considers five indicators for the protection of water resources and environmentally sensitive lands, including: Forest within the Forest Resource Area, Riparian Corridor Condition High, Highlands Open Water Protection Area, Critical Habitat, and the Water Quality Management Tier of Lake Management Areas (excluding those of the Lake Community Sub-Zone). Preservation of these lands is vital to: a) protecting Highlands Area water resources and environmentally sensitive lands; b) protecting water supply reservoirs and other critical water features; c) creating large contiguous areas of environmentally sensitive lands; d) creating habitat corridors; and e) connecting existing preserved open space.

§ 7.5.2 Applicability

The provisions of this section shall apply to any development application involving property which is located within the Special Environmental Zone (Exhibit 8). These provisions apply solely to the Preservation Area, in which the Special Environmental Zone is fully located.

§ 7.5.3 Referral to Highlands Council Required

Any development application involving a lot or lots located, or partially located, within the Special Environmental Zone, shall be neither deemed complete nor reviewed or considered by the municipal authority until or unless the proposal has been authorized by issuance of either, an HPAA with waiver from the NJDEP or a Special Environmental Zone waiver from the Highlands Council. Highlands Council authorization shall be in the form of a formal notification from the Executive Director of the Highlands Council, indicating by reference to specified plan drawings (including date, title, plan sheet number(s), and plan preparer) that the application has received a waiver from the Highlands Council and may proceed to the municipal review authority.

§ 7.6 SEPTIC SYSTEM DESIGN AND MAINTENANCE

The requirements herein apply to proposed development activities reliant upon installation of individual subsurface septic disposal systems, regarding the proper operation, design, development, monitoring, placement and maintenance of septic systems.

A. The design of septic systems shall be in compliance with the Standards for Individual Subsurface Sewage Disposal Systems at N.J.A.C. 7:9A and any applicable Board of Health Ordinance and shall be subject to approval of the Board of Health.

B. All applications shall demonstrate that the proposed plan incorporates the applicable requirements of N.J.A.C. 7:9A with respect to soils suitability, location, size, and separation distances.

C. All applications proposing new septic systems shall incorporate reserve septic system disposal areas for each septic system, which are sufficient with respect to soils suitability, location and size to meet the requirements of N.J.A.C. 7:9A, to ensure the long-term viability of septic systems in new development.

D. Any application proposing a new septic system (or systems) shall be conditioned upon filing of a deed restriction(s) or deed notice(s) protecting the delineated location(s) of the reserve septic system disposal field(s), prohibiting the placement thereon of any permanent structure(s), preserving the area (and its soils) for future installation of a replacement disposal field, and requiring that it be shown on all plans and referenced within any future applications for permits or improvements to the property.

E. All new individual septic disposal systems shall be subject to any applicable septic system management and maintenance requirements of the Board of Health, including those established in the Board of Health Ordinance and in compliance with the standards for septic system maintenance in the Water Quality Management Planning Rules, N.J.A.C. 7:15.

F. The application shall demonstrate compliance with any Board of Health Ordinance and any other Board of Health ordinances to achieve the maintenance of existing and new septic systems.

G. New development proposing to use septic systems shall be designed in a manner that ensures that untreated well water meets state drinking water quality standards for non-natural contaminants and minimizes the risk of well contamination due to the flow of septic systems plumes within or between developed lots, addressing general background water quality and flow patterns, major fracture systems and other appropriate geological, geophysical and hydrogeological issues.

§ 7.7 PUBLIC WATER SYSTEMS

The creation or expansion of any public water system, as permitted in the Existing Community Zone of the Planning Area (pursuant to § 5.3.7, above) shall comply with the following requirements:

A. ***Estimation of Need.*** Development water supply demands shall be calculated based on maximum summer month demand and on annual average demand using demand factors in N.J.A.C. 7:10 "Safe Drinking Water Regulations."

B. ***Water Resource Transfers.*** Applicants shall demonstrate that under the proposed action either:

1. No new or increased water transfer between subwatersheds will occur; or

2. No other option exists to meet public health, safety and welfare objectives, and where such transfers do occur, they are in full compliance with the requirements of § 6.7 above (Water Conservation and Deficit Mitigation), including limitations on demands on the source subwatershed.

§ 7.8 WASTEWATER COLLECTION AND TREATMENT SYSTEMS

The creation or expansion of any wastewater collection and treatment system, as permitted in the Existing Community Zone of the Planning Area (pursuant to § 5.3.7, above), shall comply with the following requirements:

A. ***WQMP Consistency.*** The proposed system shall be consistent with the relevant Areawide Water Quality Management Plan adopted by NJDEP pursuant to N.J.A.C. 7:15.

B. ***Prohibitions.*** Expansion of sewer service areas shall not be permitted for existing wastewater collection and treatment systems that are non-compliant with NJPDES permit requirements for effluent quality.

C. ***Estimation of Need***. Development wastewater demands shall be calculated based on maximum three month demand and on annual average demand using demand factors in N.J.A.C. 7:14A or N.J.A.C. 7:9A as appropriate.

D. ***Water Resource Transfers.*** Applicants shall demonstrate that under the proposed action either:

1. No new or increased water transfer between subwatersheds will occur; or

2. No other option exists to meet public health, safety and welfare objectives, and where such transfers do occur, they are in full compliance with the requirements of § 6.7 above (Water Conservation and Deficit Mitigation), including limitations on demands on the source subwatershed.

ARTICLE 8. [*RESERVED*]

ARTICLE 9. APPLICATION REVIEW PROCEDURES & REQUIREMENTS

§ 9.1 APPLICATION PROCEDURES

All procedural requirements regarding applications for zoning permits, construction permits, certificates of occupancy or approval, variance relief, site plan approval, subdivision approval, interpretations, appeals, and any other such application in the Highlands Area shall remain in effect as provided pursuant to the underlying municipal land use ordinances and other applicable codes and regulations in effect at the time of the application, except to the extent these may be modified by the provisions set forth herein.

§ 9.1.1 When Required

All requirements stipulating the circumstances under which such permits or approvals are required, as set forth by the underlying municipal zoning and land use ordinances, and any other applicable codes and regulatory requirements shall remain in full force and effect for the Highlands Area as provided pursuant to such regulations, inclusive of the specific definitions used therein to classify applications for review and consideration by the appropriate municipal authority, including but not limited to such terms as: "major site plan," "minor site plan," "major subdivision," "minor subdivision," "use variance," "conditional use variance," "change in use," "bulk variance," "zoning permit," and "building permit." In the event that the underlying municipal land use ordinances do not require issuance of a permit or other approval for any activity, improvement, or development project covered under the provisions of this Ordinance, a Highlands Resource Permit shall be required in accordance with the provisions of § 9.1.6, below.

§ 9.1.2 Highlands Act Exemptions

Pursuant to § 2.4 above, any application proposing an activity, improvement or development project that qualifies as a Highlands Act Exemption is exempt from the requirements of this Ordinance. Any applicant asserting same, shall, as a condition of application completeness, and in any case prior to municipal review or approval of the application, provide evidence that the proposal qualifies as a Highlands Act Exemption as provided under either, A or B, below.

A. ***State Agency Determination.*** State Agency Determinations shall be required for all applications involving exemptions not listed and covered by the provisions at B., below. State Agency Determinations shall include either, a Highlands Applicability Determination issued by the NJDEP for a Preservation Area proposal, or an Exemption Determination issued by the Highlands Council for a Planning Area proposal, in either case, indicating that the proposal qualifies as a Highlands Act Exemption.

B. ***Municipal Determination.*** In the case of an application involving any of the specific exemptions listed in this subsection, the applicant may request and shall be deemed to have satisfied the evidentiary requirement by obtaining a Municipal Exemption Determination indicating that the proposal qualifies as a Highlands Act Exemption. By authorization of the Highlands Council (for Planning Area exemptions) or the NJDEP (for Preservation Area exemptions) regarding these specific exemptions, the applicant may rely upon the findings of a Municipal Exemption Determination to the same extent and with the same protections as would apply in the case of an Exemption Determination issued by the Highlands Council, or of a HAD issued by the NJDEP. Exemptions eligible for Municipal Exemption Determination shall include those listed below. [*This listing will be developed in consultation with the municipality based upon its petition for Plan Conformance, and shall include applicable Highlands Act Exemptions, from the listing provided at § 2.4. The Highlands Council encourages municipalities to incorporate all exemptions authorized for municipal determination, as listed below. While municipalities may consider shortening this list, the Council encourages municipalities to retain jurisdiction to the maximum extent feasible, to provide ease and efficiency in processing of municipal applications, to reduce costs to applicants, and to retain greater control over Highlands processes*

wherever and to whatever extent authorized. Training will be provided for municipal officials prior to adoption and effectuation of these provisions and on-going assistance will be available to all officials designated with review authority.]

1. *Planning Area Exemptions.* Effective as of the date on which the municipality receives written authorization from the Highlands Council to proceed, the following Highlands Act Exemptions shall be subject to Municipal Exemption Determination:

   a) *Exemption 1.* The construction of a single family dwelling, for an individual's own use or the use of an immediate family member, on a lot owned by the individual on the date of enactment of the Highlands Act (August 10, 2004) or on a lot for which the individual entered into a binding contract of sale to purchase on or before May 17, 2004. (Note: the Highlands Act defines "an immediate family member" as a "spouse, child, parent, sibling, aunt, uncle, niece, nephew, first cousin, grandparent, grandchild, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepparent, stepchild, stepbrother, stepsister, half brother, or half sister, whether the individual is related by blood, marriage, or adoption.")

   b) *Exemption 2.* The construction of a single family dwelling on a lot in existence on the date of enactment of the Highlands Act (August 10, 2004), provided that the construction does not result in the ultimate disturbance of one acre or more of land or a cumulative increase in impervious surface by one-quarter acre or more.

      (i) Municipal Exemption Determinations authorizing applicants to proceed under Highlands Act Exemption 2 shall require approval and filing of either a Deed Notice or Conservation Restrictions providing for the protection of the balance of the applicant's property, beyond the designated disturbance area of less than one acre, in accordance with the requirements of § 7.3 of this Ordinance, "Conservation Restrictions." Review and approval of proposed Deed Notice or Conservation Restrictions shall occur as provided at § 7.3 of this Ordinance, with the costs for review and approval of same provided by the applicant in accordance with the escrow requirements of § 9.3 as applicable to Conservation/Deed Restrictions. Municipal Exemption Determinations in such instances shall not take effect until or unless the applicant has provided proof of filing of the approved deed restrictions.

   c) *Exemption 4.* The reconstruction of any building or structure for any reason within 125% of the footprint of the lawfully existing impervious surfaces on the site, provided that the reconstruction does not increase the lawfully existing impervious surface by one-quarter acre or more. This exemption shall not apply to the reconstruction of any agricultural or horticultural building or structure for a non-agricultural or non-horticultural use.

      (i) For purposes of this Ordinance, this exemption shall not be construed to permit multiple 125% footprint expansions, but rather, to permit one or more reconstruction activities cumulatively resulting in a maximum 125% increase in the footprint of the impervious surfaces lawfully existing on the site, provided they do not cumulatively exceed the one-quarter acre limitation.

      (ii) For purposes of this Ordinance, the applicable date of lawful existence shall coincide with the date of enactment of the Highlands Act, or August 10, 2004.

      (iii) For purposes of this Ordinance, these provisions shall not be construed to exempt any change in use of such reconstructed building or structure from the applicable provisions of this Ordinance.

d) *Exemption 5*. Any improvement to a single family dwelling in existence on the date of enactment of the Highlands Act (August 10, 2004), including but not limited to an addition, garage, shed, driveway, porch, deck, patio, swimming pool or septic system.

e) *Exemption 6*. Any improvement, for non-residential purposes, to a place of worship owned by a nonprofit entity, society or association, or association organized primarily for religious purposes, or a public or private school, or a hospital, in existence on the date of enactment of the Highlands Act (August 10, 2004), including but not limited to new structures, an addition to an existing building or structure, a site improvement, or a sanitary facility.

f) *Exemption 7*. An activity conducted in accordance with an approved woodland management plan pursuant to section 3 of the "Farmland Assessment Act," P.L.1964, c.48 (C.54:4-23.3) or the normal harvesting of forest products in accordance with a forest management plan approved by the State Forester.

g) *Exemption 8*. The construction or extension of trails with non-impervious surfaces on publicly owned lands or on privately owned lands where a conservation or recreational use easement has been established.

C. ***Procedures.*** Municipal Exemption Determinations shall be issued by the Exemption Designee, as indicated at D., below, within 45 days of receipt of a request for same. In no case shall failure to meet this date constitute approval of the exemption.

1. Requests for Municipal Exemption Determination shall be submitted on forms provided by the Township Land Use Administrator and shall be accompanied by sufficient information and documentary evidence to demonstrate whether or not the proposed activity, improvement or development project qualifies, in all respects, with the applicable exemption. Required submission materials applicable to each exemption, appear below. The applicant shall provide a copy of the full application to the Highlands Council, as instructed within the form.

2. Insufficient or incomplete information shall form the basis for a finding that the proposal is not qualified as a Highlands Act Exemption. Nothing shall preclude the applicant in such an instance, from re-submission of the application. In addition, where the Exemption Designee has determined that the required information is not extensive, s/he may authorize the applicant to provide supplemental materials under the same application, subject to the applicant's agreement to an extension of time for review of the application not to exceed an additional 20 days from the date of receipt of materials. The Exemption Designee may consult with the Executive Director (or applicable designee) of the Highlands Council as needed in making any exemption determination.

3. All Municipal Exemption Determinations shall be provided in writing, shall indicate the findings of the Exemption Designee, and shall include a statement of the rationale for the final decision, whether approving or denying the exemption request. All Municipal Exemption Determinations shall include the effective date of the Determination, which shall occur on the 20th day after the date of issuance provided it is not modified or rejected in the interim by the Highlands Council. The Exemption Designee shall provide copies of all Municipal Exemption Determination to the Highlands Council within five (5) business days of issuance.

D. ***Exemption Designee.*** Municipal Exemption Determinations regarding Highlands Act Exemptions shall be issued by the Township Land Use Administrator.

E. ***Appeal of Findings.*** The decision of the Exemption Designee may be appealed by any affected party in accordance with the provisions of the underlying land use ordinance, pursuant to N.J.S.A. 40:55D-70(a).

F. ***Submission Requirements.*** All applications shall be accompanied by the information listed below, as applicable to the particular exemption or exemption(s) being sought by the applicant. All references to professional preparers indicated herein shall be construed to include any and all qualified individuals licensed, certified, or otherwise eligible and authorized to complete such work, in accordance with the applicable laws and legal requirements of the State of New Jersey including but not limited to the MLUL (N.J.S.A. 40:55D-1 et seq.) and Title 13 of the New Jersey Administrative Code, Law and Public Safety.

1. *Exemption 1.*

   a) A copy of a deed, closing or settlement statement, title policy, tax record, mortgage statement or any other official document showing that the lot was legally owned by the applicant on or before August 10, 2004 and indicating the lot and block as designated by the municipal tax mapping, the municipality and county in which the lot is located, and the street address;

   b) If the applicant does not own the lot, a copy of the binding contract of sale executed by the seller and the applicant on or before May 17, 2004 for the lot on which the house is to be constructed;

   c) A certification by the applicant stating that the single family dwelling proposed for construction on the lot specified and described therein by tax lot and block, municipality and county of location, and street address, is intended for the applicant's own use or the use of an immediate family member as identified therein by name and relationship to the applicant; and

   d) A property survey certified by a licensed New Jersey Professional Land Surveyor indicating the property boundary lines and overall lot size, and showing what structures currently exist on the lot, if any.

2. *Exemption 2.*

   a) A copy of the recorded deed or plat showing that the lot was created on or before August 10, 2004;

   b) A property survey certified by a licensed New Jersey Professional Land Surveyor indicating the property boundary lines and overall lot size, and showing what structures currently exist on the lot, if any;

   c) A parcel plan certified by a licensed New Jersey Professional Engineer showing all existing and proposed development, including all structures, grading, clearing, impervious surface and disturbance, and including the calculations supporting the claim that impervious surfaces and areas of disturbance are within the limits necessary for Exemption 2; and

   d) A metes and bounds description of the area of the lot to be disturbed, limited to less than one acre and a draft conservation restriction or deed notice to cover the balance of the lot.

3. *Exemption 4.*

a) A parcel plan certified by a licensed New Jersey Professional Engineer depicting:

(i) All existing property improvements, including all structures, grading, clearing, impervious surfaces and limits of disturbance, existing on the site as of August 10, 2004; and

(ii) All proposed development including all structures, impervious surfaces, clearing limits, and limits of disturbance, including grading;

b) Photographs keyed to the site plan; and

c) A copy of any official documentation indicating the original date of construction of the building or otherwise establishing the lawfulness of existing impervious surfaces.

4. *Exemption 5*.

a) A copy of any official documentation proving the single family dwelling was in existence on August 10, 2004;

b) A description of the proposed improvement; and

c) A certification from the applicant that the property and all improvements will continue to be used for single family dwelling purposes.

5. *Exemption 6*.

a) A copy of any official documentation indicating that the place of worship, public or private school or hospital was in existence on August 10, 2004;

b) For improvements to a place of worship, documentation showing that the entity, society or association, or association organized primarily for religious purposes has non-profit status;

c) A site plan certified by a licensed New Jersey Professional Engineer depicting:

(i) All existing property improvements including all structures, grading, clearing, impervious surfaces and limits of disturbance, existing on the site on August 10, 2004; and

(ii) All proposed development including all structures, impervious surfaces, clearing limits, and limits of disturbance, including grading; and

d) A Certificate of Occupancy for existing buildings on the property.

6. *Exemption 7*.

a) For a private landowner with an approved woodlot management plan:

(i) A copy of the applicant's tax bill showing that the site has farmland assessment tax status under the New Jersey Farmland Assessment Act, N.J.S.A. 54:4-23.1 et seq., if applicable;

(ii) A brief description of the total area of woodlands that is the subject of the approved woodland management plan;

(iii) A brief description of the length of time that the area to be managed has been in use for woodland management; and

(iv) A copy of the approved woodland management plan.

b) For a forest management plan approved by the State Forester:

(i) A brief description of the total area where the normal harvesting of forest products occurs;

(ii) A brief description of the length of time that the area to be managed has been in use for normal harvesting of forest products; and

(iii) A copy of a forest management plan approved by the State Forester.

7. *Exemption 8.*

a) A site plan certified by a licensed New Jersey Professional Engineer showing the proposed trail construction with details including the location, and width of existing and proposed trails and those off-site trails to which they connect, if any;

b) A written description of the non-impervious materials to be used; and

c) For privately owned property, a copy of a deed for the property, including the language establishing the conservation or recreational use easement on the property.

§ 9.1.3 **Approvals Subject to Compliance**

Approval of any land use-related application pertaining to the Highlands Area, whether a zoning permit application, building permit application, Application for Development (as defined at § 3.2), or any other such application, unless deemed a Highlands Act Exemption pursuant to § 9.1.2A or § 9.1.2B above, is subject to compliance with the provisions of this Ordinance. Prior to any such approval, the reviewing entity shall ensure that the proposed activity, improvement or development project that is the subject of the application under its jurisdiction, is either in full compliance with all applicable provisions of this Ordinance; has received approval(s) from the entity or entities authorized to grant relief from such provision(s); or by its conditioned approval, where permitted herein, will remain subject to the issuance of such approval(s) from the entity or entities authorized to consider and issue such relief, with such approval(s) to issue prior to any land disturbance related to the proposed activity, improvement or development project.

A. ***Building/Construction Permit Applications.*** Demonstration of compliance with all applicable provisions of this Ordinance shall be required as a Prior Approval to the issuance of any building permit. Proof of such compliance shall be provided in writing, as issued by the applicable reviewing authority or authorities, including but not limited to the Township Land Use Administrator or Planning Consultant.

B. ***Zoning Permit Applications.*** Demonstration of compliance with all applicable provisions of this Ordinance shall be required prior to the issuance of any zoning permit or zoning approval. Where a finding of compliance requires authority or professional expertise outside the purview of the Zoning Official, such proof shall be provided in writing by the applicable reviewing authority or authorities, including but not limited to the Township Planner, Engineer, Planning Board, Zoning Board of Adjustment, Board of Health, Health Department. In such instances, receipt of such findings of

compliance shall constitute mandatory Prior Approvals to the issuance of any zoning permit or approval.

C. ***Applications for Development.*** Prior to granting any approval of an Application for Development, the Planning Board or Zoning Board of Adjustment, as applicable, shall make specific findings of compliance with regard to the applicable provisions of this Ordinance, such findings assisted by the advice and recommendations of the reviewing Board's professionals, including but not limited to the Board Planner, the Board Engineer, and any specialist, expert or other consultant engaged by the Board to assist in any field of specialization. The reviewing Board shall attach certain conditions to any such approval as provided at § 9.2.3 below, but is by no means limited solely to these in making its determination on an application.

§ 9.1.4 **Applications Requiring Prior Highlands Council Approval**

For any application listed in this subsection, authorization by the Highlands Council shall be obtained prior to a finding of application completeness, and prior to any review or approval of the application by the applicable municipal authority. In all such cases, applications shall be filed with the Highlands Council in accordance with its established submission and procedural guidelines.

A. ***Special Environmental Zone.*** Any application involving property located within, or partially within the Special Environmental Zone, pursuant to § 7.5 unless an HPAA with waiver has been issued by the NJDEP authorizing the proposed activity, project or improvement.

B. ***Critical Habitat.*** Any application proposing disturbance of an area designated as Critical Habitat (excluding any for which an HPAA has been issued by the NJDEP) pursuant to § 6.4.

C. ***Scenic Resources.*** Any application involving property which is located either, among those identified as containing a Highlands Scenic Resource (Exhibit 9),(or which lies adjacent to any property containing or partially containing such Resources pursuant to § 6.12.

D. ***New/Extended Utility Infrastructure.*** Any application proposing installation of new or extended water supply or wastewater collection/treatment utility infrastructure in any Planning Area Zone or Sub-Zone other than: a) the Existing Community Zone (excluding the Existing Community Environmentally Constrained Sub-Zone), or b) Lake Community Sub-Zone, pursuant to § 5.3.7.

E. ***Net Water Availability.*** Any application proposing the use of Net Water Availability (excluding any for which an HPAA has been issued by the NJDEP), unless a Water Use and Conservation Management Plan has been approved by the Highlands Council.

F. ***Conditional Water Availability.*** Any application proposing the use of Conditional Water Availability involving subwatershed in a Current Deficit Area (excluding any for which an HPAA has been issued by the NJDEP), unless a Water Use and Conservation Management Plan has been approved by the Highlands Council.

§ 9.1.5 **Applications Requiring Prior NJDEP Approval**

For any applications listed in this subsection, approval by the NJDEP shall be obtained prior to a finding of application completeness, and prior to any review or approval of the application by the applicable municipal authority.

A. ***Major Highlands Developments.*** Any application for a Major Highlands Development in the Preservation Area as defined by the NJDEP Preservation Area rules at N.J.A.C. 7:38.

B. ***New/Extended Utility Infrastructure.*** Any application proposing the installation of new or extended water supply or wastewater collection/treatment infrastructure in any portion of the Preservation Area.

§ 9.1.6 **Findings of Compliance**

With regard to any application, or any specific aspect of an application for which the Highlands Council or the NJDEP has explicitly issued an approval, the applicable reviewing authority shall find that, to the extent the approval specifically addresses the provisions of this Ordinance, the applicant has demonstrated compliance. Such approvals shall not be construed to waive or obviate other applicable provisions of this Ordinance or of any other applicable municipal or non-municipal ordinances, regulations or requirements. With respect to all other findings of compliance, the provisions of this subsection shall apply.

A. ***Professionals Required.*** Findings of compliance with the provisions of this Ordinance shall be provided only by individuals qualified to review and make such determinations. In many but not all instances these shall require licensed, certified or otherwise qualified professionals such as scientists, engineers, planners or geologists. Fee and escrow requirements associated with applications requiring approval under this Ordinance, shall reflect the reasonable anticipated expenses associated with processing and reviewing such applications, as provided at § 9.3 below. The following professionals (where the term "professionals" is construed to include any and all qualified individuals licensed, certified, or otherwise eligible and authorized to complete such work, in accordance with the applicable laws and legal requirements of the State of New Jersey) shall, to the extent of their applicable licensure, certification, or other appropriate qualifications, shall be authorized to review and provide findings pursuant to this Ordinance, and shall be designated as required, by the municipal Governing Body or reviewing Planning Board or Zoning Board of Adjustment, as applicable:

1. *Use, Density, Intensity & Other Bulk Requirements:* Professional Planner; Professional Engineer; Zoning Officer

2. *Forest Resources:* Certified Tree Expert; Forester; Forest Scientist/Ecologist

3. *Highlands Open Waters, Riparian Areas, and Lake Management Areas:* Limnologist, Wetlands or Riparian Scientist/Ecologist, Environmental Engineer (as required for Water Quality Management issues)

4. *Steep Slopes:* Geologist, Professional Engineer; Topographic Surveys: Licensed Land Surveyor

5. *Carbonate Rock Areas:* Geotechnical Engineer; Geologist; other Professional Engineer or Geological Expert qualified and experienced in geological/geotechnical aspects of development

6. *Water Conservation and Deficit Mitigation, Prime Ground Water Recharge Areas, Wellhead Protection Areas, Stormwater Management:* Hydrogeologist, Professional Engineer; Water Resources Engineer; Environmental Engineer

7. *Low Impact Development:* Landscape Architect, Professional Engineer; Environmental Engineer; Professional Planner qualified and experienced in applicable areas

8. *Conservation/Deed Restrictions:* Attorney

B. ***Zoning and Building/Construction Permit Applications.*** Where a zoning or building/construction permit application (or request for approval) is not preceded by an Application for Development under the purview of the Planning Board or Zoning Board of Adjustment, the

reviewing official shall rely upon the determination(s) of the individual designated in A., above for findings of compliance with respect to the applicable provisions of this Ordinance.

1. All determinations by the qualified professional shall be determinative in the disposition of any zoning or building/construction permit application with respect to required Prior Approvals.

2. Where the professional determines that an approval may be granted subject to certain conditions, such conditions shall be addressed prior to the issuance of any permit or approval by the building or zoning official, unless in the estimation of the professional, satisfaction of the required conditions of approval will not be compromised by issuance of the zoning or building/construction permit and are ensured by other means, such as withholding of any final certificates of occupancy or approval.

3. The findings of the review professional shall be provided in writing to both the municipal official(s) responsible for the review and disposition of the zoning or building/construction permit, and to the applicant. Where such findings indicate that the application is not compliant with the applicable provisions of this Ordinance, the review professional shall provide a statement identifying the reasons therefor. Where the review professional indicates that an approval may be granted pending satisfaction of certain conditions, a statement and explanation of the conditions to be attached shall be set forth as well as the reasons therefor.

4. The findings of the review professional may be appealed by any affected party in accordance with the provisions of the underlying land use ordinance, pursuant to N.J.S.A. 40:55D-70(a).

5. The professional review process shall occur as follows:

   a) Upon notice from the municipal official(s) responsible for the review and disposition of the zoning or building/construction permit that a Prior Approval is required, it shall be the applicant's responsibility to prepare a request for review and issuance of such approvals by the designated municipal professional(s).

   b) The applicant shall provide all of the documents and materials required for submission under an Application for Development pursuant to § 9.2, below, to the extent they apply with respect to the particular resources and Ordinance provisions at issue, for review by the professional.

   c) The professional shall provide a completeness determination in writing, within thirty (30) days of receipt of the application materials, which in the event of an incomplete application, shall indicate the reasons therefor. The professional shall have the authority to waive submission of items he or she finds unnecessary or irrelevant to the evaluation and the required report of findings.

   d) The professional shall review and provide a report of findings to both the municipal official(s) and the applicant within forty-five (45) days of the date on which the application is deemed complete.

   e) In the event of a Carbonate Rock Investigation pursuant to § 6.5.3, above, the professional report of findings shall be provided in accordance with the program and scheduling as provided therein.

   f) The review professional shall have authority to issue such waivers and exceptions as provided only in accordance with Article 10, below.

C. ***Highlands Resource Permit Applications.*** In the event that the underlying municipal land use ordinances do not require issuance of a zoning or building permit, or approval of an Application for Development through which compliance with the provisions of this Ordinance may be demonstrated, the provisions herein shall apply.

1. Any person proposing an activity, improvement or development project that will affect a Highlands resource, Resource Area, or Protection Area, shall obtain a Highlands Resource Permit in accordance with this section.

2. Applications shall be made on forms provided by the municipality requiring identification of the owner of the property or properties at issue, the tax block and lot, street address, the extent, location and type of activity proposed, and by submission of a Consistency Determination Report from the Highlands Council website, an indication of the resources potentially affected by the proposed activity.

3. The designated review authority for such applications shall be the Township Planning Consultant.

4. The review and disposition of such applications shall occur as provided for zoning and building/construction permits, in the preceding sections, with approvals being issued only upon a finding of compliance.

D. ***Applications for Development.*** With respect to Applications for Development, findings of compliance shall be provided by the applicable professional(s) through the process of review and consideration undertaken by the Planning Board or Zoning Board of Adjustment. The reviewing Board (or its committee(s), if applicable) shall consider all such findings during the course of the Application for Development, in conjunction with all other relevant information and requirements in rendering a final decision in any matter.

§ 9.2 APPLICATIONS FOR DEVELOPMENT

The provisions of this section shall apply to any Application for Development (see § 3.2, above) under the jurisdiction of the Planning Board or Zoning Board of Adjustment.

§ 9.2.1 Notice & Reporting Requirements

The provisions of this section shall apply in addition to all requirements concerning public notice for Applications for Development as provided under the MLUL and required pursuant to the underlying municipal land use ordinances.

A. ***Notice of Application to Highlands Council***. The applicant for any Application for Development shall provide notice to the Highlands Council at least ten (10) days prior to the date on which the application is scheduled for consideration by the local Board. A copy of the complete application shall accompany such notice regarding any Application for Development involving the potential disturbance of two (2) acres, or more, or a cumulative increase in impervious coverage of one (1) acre, or more. The applicant shall provide copies of any subsequent revisions to such applications to the Highlands Council at the same time these are provided to the reviewing Board. If such plans or plats have been prepared in digital form, they shall be provided to the Highlands Council in a digital format that meets Highlands Council standards for such submissions.

B. ***Scenic Resource Notice Requirements***. Where a project site falls within a Highlands scenic resource area designated by the Highlands Council, or within the Scenic Resources Tier of a Lake Management Area, that crosses municipal or county boundary lines, public notice requirements shall, in

addition to the applicable notice requirements of the MLUL, incorporate any supplemental notice provisions as set forth in the adopted Scenic Resource Management Plan.

C. ***Notice of Decision Required.*** The reviewing Board shall provide a certified copy of the fully-executed resolution memorializing its final decision regarding any Application for Development to the Highlands Council within ten (10) days of its adoption. This provision shall apply in all cases, whether the Board approves the Application for Development, denies it, or approves it with conditions.

§ 9.2.2 **Board Decisions Subject to Highlands Council Call-Up**

All Board decisions pertaining to Applications for Development involving the ultimate disturbance of two (2) acres or more of land or a cumulative increase in impervious surface by one (1) acre or more, are subject to call-up and subsequent review by the Highlands Council in accordance with procedural requirements and timeframes established pursuant to the Highlands Act. The Highlands Council may, on notice to the applicant within 15 days of receipt of the memorializing resolution of the reviewing Board, review and require a public hearing on the application. In that case, subsequent to the hearing the Highlands Council may approve the Application for Development, deny it, or issue an approval with conditions.

§ 9.2.3 **Conditions of Approval**

The following conditions of approval shall, in addition to any applicable conditions previously set forth under this Ordinance, be attached to any Application for Development approved pursuant to the MLUL, and the provisions of § 9.1, above.

A. ***No Land Disturbance.*** No land disturbance approved in connection with an Application for Development involving the ultimate disturbance of two (2) acres or more of land or a cumulative increase in impervious surface by one (1) acre or more, shall occur until and unless, either:

1. The Highlands Council call-up period has expired without issuance of a notice seeking review of the application by the Highlands Council; or

2. The Highlands Council has issued notice and has reviewed the approval pursuant to N.J.S.A. 13:20-17(a)1 and has determined not to deny or modify the approval.

B. ***Amendments.*** In the event that Highlands Council review of an approved Application for Development pursuant to § 9.2.2 above results in a finding that the plans must be modified, the applicant shall amend the application accordingly and submit the amended application to the reviewing Board for approval. Such submissions shall include the written findings and notice of decision of the Highlands Council.

C. ***Conservation Restrictions.*** The applicant shall commit to and, as a condition of approval, perfect a conservation restriction on the undisturbed portions of Highlands Resources, Highlands Resource Areas, and Special Protection Areas located on the subject property, pursuant to the provisions of § 7.3.

D. ***Approvals Conditioned on State Approvals.*** All approvals shall be subject to the approval of any and all State agencies or other authorities having jurisdiction over any aspect or aspects of the approved Application for Development.

E. ***As-Built Surveys Required.*** Prior to issuance of any final Certificate of Occupancy or Approval, or to the release of any performance bonding held in relation to the approved Application for Development, the applicant shall provide an "as-built" survey depicting the final site conditions.

F. ***Submission of Final Plans/Plats to Highlands Council.*** The applicant shall provide a copy of any final site plan or subdivision plat to the Highlands Council. If such plans or plats have been prepared in digital form, they shall be provided to the Highlands Council in a digital format that meets Highlands Council standards for such submissions.

§ 9.3 APPLICATION FEE & ESCROW REQUIREMENTS

The application fee and escrow requirements of this subsection shall apply in addition to all existing fee and escrow requirements, including procedural and legal requirements, as set forth in the underlying municipal land use ordinances. All application fees and escrows shall be managed and dispensed as prescribed under all applicable state and local requirements, including but not limited to those of the MLUL and the Uniform Construction Code. [*The municipality may modify the requirements of this section and set applicable fees and escrows as it deems appropriate. Township will insert fee and escrow amounts prior to adoption; guidance to be provided by the Highlands Council.*]

A. ***Municipal Exemption Determinations.*** The fees provided herein shall apply to applications for Municipal Exemption Determinations pursuant to § 9.1.2 of this Ordinance.

1. Municipal Exemption Determination: $_____

2. Denied Application Amended for Compliance: $_____

B. ***Highlands Resource Review.*** The fee and escrow requirements herein shall apply to applications for Highlands Resource Permits, and to Zoning Permit and Building/Construction Permit applications for which Highlands Resource review is required as a prior approval pursuant to § 9.1.6.

1. Highlands Resource Review Fees

a) Applications involving determinations regarding: permitted/prohibited uses, carbonate rock phase I investigation, water use and conservation, wellhead protection, prime ground water recharge, low impact development, or any combination of these: $_____

b) Applications involving determinations regarding any one or combination of the following: density or intensity of development standards, forest resources, Highlands open waters, riparian areas, lake management, steep slopes, carbonate rock phase II investigation, water deficit mitigation, or stormwater management (including stormwater low impact development): [*The municipality may wish to set fees for these applications that are higher than those in 1.a above to cover the additional administrative costs involved in arranging for special professional services contracts.*] $_____

c) Applications involving determinations regarding any combination of items listed in both 1.a and 1.b, above, shall be subject to the application fee listed at 1.b.

2. Escrow Deposit Requirements

a) Applications requiring compliance determinations pursuant to any Highlands resource component listed in the following table shall be accompanied by the escrow deposits therein indicated. Where an application involves more than one of the listed application compliance components, escrow deposits shall be cumulative.

Application Compliance Component	Escrow Deposit
a) Density or Intensity Standards	
b) Forest Resources	
c) Highlands Open Waters and/or Riparian Areas	
d) Lake Management	
e) Steep Slopes	
f) Carbonate Rock, Phase II Investigation	
g) Water Deficit Mitigation	
h) Stormwater Management and Stormwater LID	
i) Conservation/Deed Restrictions	
j) Operations and Contingency Plans	

b) Escrow deposits shall be used by the municipality to cover the costs of professional reviews associated with the respective Highlands resource components. Where any escrow account is depleted to an amount equaling 25% or less of the original deposit amount, the status and progress of the application shall be reviewed by the applicable municipal official(s), and the professional responsible for Highlands resource review shall determine whether account replenishment is necessary, and if so, by what amount. On notice from the municipality of any such replenishment requirement, the applicant shall provide the additional escrow accordingly and within such timeframes as therein stated.

C. ***Applications for Development.*** All fee and escrow requirements pertaining to Applications for Development shall remain as set forth in the underlying municipal land use ordinances, with the adjustments provided herein as a supplemental requirement, applicable in the case of any application for which the reviewing Board requires professional assistance in making findings of compliance pursuant to § 9.1.6.

1. The required escrow deposit for applications involving determinations regarding any one or more of the following resource components shall be calculated by multiplying the existing escrow deposit requirement by 1.25: carbonate rock phase I investigation, water use and conservation, wellhead protection, prime groundwater recharge, low impact development.

2. The required escrow deposit for applications involving determinations as to any of the following resource components shall be calculated by multiplying the existing escrow deposit requirement by 0.25 for each applicable item, and adding each to the existing escrow deposit amount: density or intensity of development standards, forest resources, Highlands open waters, riparian areas, lake management, steep slopes, carbonate rock phase II investigation, water deficit mitigation, or stormwater management (including stormwater low impact development.

3. The required escrow deposit for any application involving determinations listed at both C.1 and C.2, above, shall be calculated by multiplying the existing escrow deposit requirement by 0.25 and adding the result to the amount determined under C.2.

§ 9.4 SUBMISSION CHECKLIST REQUIREMENTS

All applicants seeking approval for any activity, improvement or development project covered under the provisions of this Ordinance shall submit the materials required in this section for review by the applicable municipal authority. In no case shall an Application for Development (as defined in Article 3) be deemed complete or scheduled for Board review until such time as the Board has received all required items in accordance with the provisions herein. Applications for Highlands Resource Permits and for Zoning Permits and Building/Construction Permits requiring Highlands Resource review shall not be considered for such

review until such time as the reviewing authority has received all required items in accordance with the provisions herein. In all cases, the submission requirements of this section shall be considered supplemental to the checklist requirements of the underlying municipal land use ordinances.

§ 9.4.1 **General Submission Requirements**
All applications shall be accompanied by the following:

A. ***Application Fees and Escrow Deposits***

B. ***Completed Application Forms*** (25 Copies)

C. ***Highlands Act Exemptions.*** Any applicant claiming eligibility for an exemption under the Highlands Act shall provide one of the following:

1. Municipal Exemption Determination for any eligible exemption listed at § 9.1.2; or

2. Highlands Applicability Determination from the NJDEP for a Preservation Area application; or

3. Highlands Exemption Determination from the Highlands Council for a Planning Area application.

D. ***Prior Approvals.*** All applications requiring prior approvals pursuant to the provisions of this Ordinance shall provide evidence of receipt of same, as listed below. All such applications shall be accompanied by copies of the specific plans, reports and other materials to which such approval applies.

1. For any application affecting property in the Special Environmental Zone pursuant to either § 5.2.1 or § 7.5.2:

   a) An HPAA with waiver issued by the NJDEP for any application involving a Major Highlands Development.

   b) A Special Environmental Zone Waiver issued by the Highlands Council for any application involving a non-Major Highlands Development.

2. For any application proposing disturbance of Critical Habitat pursuant to § 6.4.2, Notice of Authorization issued by the Highlands Council or HPAA issued by the NJDEP.

3. For any application proposing development within the Carbonate Rock Area pursuant to § 6.5.2, copies of Phase I Geologic Investigation report, Phase II Geotechnical Evaluation Report if applicable, associated certification(s) of sufficiency issued by Municipal Engineer, and all written evaluations, reports, recommendations issued by the Municipal Engineer pursuant to § 6.5.3.

4. For any application proposing development within a Carbonate Rock Drainage Area pursuant to § 6.5.4, copies of Phase I Geologic Investigation report, associated certification of sufficiency issued by Municipal Engineer, and all written evaluations, reports, recommendations issued by the Municipal Engineer pursuant to § 6.5.3.

5. For any application proposing an increase in the use of Net Water Availability or Conditional Water Availability pursuant to § 6.7, Notice of Findings issued by the Highlands Council pursuant to § 6.7.7 or HPAA issued by the NJDEP.

6. For any application affecting a Scenic Resource pursuant to § 6.12, Notice of Authorization issued by the Highlands Council pursuant to § 6.12.3.

7. For any application proposing installation of new or extended water supply or wastewater collection/treatment utility infrastructure in any Planning Area Zone or Sub-Zone other than: a) the Existing Community Zone (excluding the Existing Community Environmentally Constrained Sub-Zone), or b) Lake Community Sub-Zone, pursuant to § 5.3.7, Notice of Authorization issued by the Highlands Council.

8. For any application for a Major Highlands Development in the Preservation Area as defined by the NJDEP Preservation Area rules at N.J.A.C. 7:38, an HPAA issued by the NJDEP.

9. For any application proposing the installation of new or extended water supply or wastewater collection/treatment infrastructure in any portion of the Preservation Area, an HPAA with waiver issued by the NJDEP.

E. ***Mapping Instructions.*** All mapped information shall be provided for the full parcels affected by the proposed project and a distance of 200 feet from the outer boundaries of all affected parcels. Where this Ordinance requires field surveys of resources, the field survey requirement shall apply only to the affected parcels and shall be conducted by qualified professionals. These include specifically: contiguous steep slope areas of 5,000 square feet or more which are not within the Steep Slope Protection Area; areas defined as Forest via the methodology provided at Appendix A which are not identified within the Total Forest Area, or which revise the Total Forest Area; if required pursuant to § 6.6.4, the applicable limits of the Lake Management Scenic Resources Tier; and if deemed necessary by the review professional pursuant to § 6.5.4, the boundary lines of any Carbonate Rock Drainage Area. The area within 200 feet of the affected parcels may be mapped using existing data and is not subject to field surveys. Where field surveys are not required for mapping of Highlands resources, the application shall include Highlands Council GIS data. In addition to paper plans, initial plan sets shall be submitted on CD (or other acceptable archival electronic format) in the most recent version of ESRI Shape files (.shp) and in the most recent version of Adobe Acrobat® (.pdf) format. The plans must be geo-referenced using New Jersey State Plane Coordinates NAD83 (or the most current New Jersey State Plane coordinate system). The final approved version shall be submitted in the same manner. Plan revisions (subsequent to the initial plan sets but prior to final approved version) shall be submitted in .shp and .pdf either in archival electronic format or via e-mail. Projects that will disturb less than two (2) acres <u>and</u> will create less than one (1) acre of net impervious surface may be submitted as geo-referenced CAD files in lieu of the ESRI Shape files.

§ 9.4.2 **Permit Applications**

The submission requirements of this subsection shall apply in addition to those of § 9.4.1 above, in the case of all applications for Highlands Resource Permits and for Zoning or Building/Construction Permits requiring Highlands Resource Review. Where the reviewing authority or designated review professional determines that a submission item listed in this subsection is not applicable to the proposed development project or is unnecessary to the conduct of such review, the authority or designated professional may waive the requirement for its submission. A waiver of submission of any checklist item shall not be construed to preclude the reviewing entity from ultimately requiring the submission of such item, however, if during the course of application review, it is found necessary and relevant in making a determination.

A. ***Base Submission Requirements.***

1. Identification of Highlands Planning Area or Preservation Area and Highlands Zone or Sub-Zone in which the property is located (available through Highlands Council website).

2. Identification of Highlands Resource and Protection Areas in which the property is located, inclusive of Highlands Council maps indicating the boundary lines of same unless fully encompassing the property (Highlands Council website).

3. Existing and proposed use(s) and accessory use(s), including any proposed Major or Minor PCS (listed at APPENDIX B and APPENDIX C).

4. Copy of property survey indicating metes and bounds, existing buildings, structures, impervious surfaces, significant site features (e.g. water bodies), easements or other such encumbrances.

5. Plans showing the proposed area of disturbance for all aspects of the development, including but not limited to buildings, driveways, utilities, landscaped areas and all appurtenant structures.

6. Plans showing the proposed grading, soil conservation plan, and sediment and soil erosion control plan.

7. Plans showing proposed conservation restrictions or easement(s) to be provided pursuant to § 7.3.

8. Plans documenting baseline conditions in all areas designated for public (or non-profit land trust) open space preservation.

9. **Water Use**

   a) For non-Major Highlands Development, existing and proposed water demand inclusive of calculations based on use and unit/square footage equivalents listed at § 5.3.4.

   b) For any non-Major Highlands Development application proposing new or increased water use pursuant to § 6.7.2:

      (i) All submission items required pursuant to any adopted municipal or subwatershed-based Water Use and Conservation Management Plan (WUCMP).

      (ii) The following, where a WUCMP has not been adopted and the application proposes use of Conditional Water Availability pursuant to § 6.7.7B:

         (a) Information identifying project water demand data, water supply source and water utility provider.

         (b) Identification of the water supply source HUC14(s) for the project, deficit status, and conditional availability as provided by the Highlands Council.

         (c) Deficit Mitigation Plan pursuant to § 6.7.7 B.4.

10. **Septic Systems**

   a) For Planning Area applications and applications for non-Major Highlands Development in the Preservation Area, existing and proposed septic system demand inclusive of calculations based on use and unit/square footage equivalents listed § 5.3.5 B.

b) For Planning Area applications and applications for non-Major Highlands Development in the Preservation Area, where either proposes new or increased septic system demand pursuant to § 5.3.2, septic system yield calculations based on § 5.3.5 B.

c) For any application involving aggregated septic system yield pursuant to § 5.3.5:

(i) Septic system yield calculations pertinent to all parcels, whether contributing or receiving such yield; and

(ii) Proposed Conservation Restrictions applicable to all contributing parcels, pursuant to § 5.3.5 and the provisions of § 7.3.

d) For all applications proposing new septic systems, plans showing the proposed location and configuration of such system(s), including designated area(s) for reserve septic disposal field(s) pursuant to § 7.6. Plan notes indicating that the septic system(s) shall be designed in accordance with N.J.A.C. 7:9A, and that design plans and details are subject to the approval of the Health Department.

e) Proposed deed restrictions to be imposed to prohibit the installation or construction of any permanent improvements within the reserve disposal area(s) pursuant to § 7.6.

11. **Stormwater Management**

a) For applications regulated under municipal or regional stormwater management plans (or both), all applicable submission requirements pertinent thereto.

b) Proposed Low Impact Development management practices to minimize the creation or increase of stormwater runoff due to development or disturbance of the site.

12. **Low Impact Development**

a) Description of Conservation Design Planning process, pursuant to § 7.2.2.

b) Landscape plan (if applicable) indicating proposed type, species, quantity and location of plantings; planting details.

c) Description of energy efficiencies incorporated into building(s), building orientation and site design.

d) Description of proposed reuse or recycling of building materials.

13. Any such additional information as the reviewing authority may find necessary to determine compliance with the provisions of this Ordinance.

B. ***Highlands Resource Submission Requirements.*** For applications involving properties containing any Highlands Resource, Highlands Resource Area or Special Protection Area, all submission checklist items required pursuant to each, as provided at § 9.4.4 through § 9.4.14, below.

§ 9.4.3 **Applications for Development**

The submission requirements of this subsection shall apply in addition to those of § 9.4.1 and § 9.4.2 above, to all Applications for Development involving properties containing Highlands Resources or located within a

Highlands Resource Area or Special Protection Area. Where the reviewing Board determines that a submission item listed in this subsection is not applicable to the proposed development project or is unnecessary in the conduct of its review, the Board may waive the requirement for its submission. A waiver of submission of any checklist item shall not be construed to preclude the reviewing Board from ultimately requiring the submission of such item, however, if during the course of application review, it is found necessary and relevant in making a determination.

A. ***Base Submission Requirements.*** In addition to the Base Submission Requirements of § 9.4.2 above, the following shall apply:

1. Existing features and site analysis plan, identifying and mapping:

   a) All Highlands Open Waters and water bodies (including but not limited to rivers, lakes, ponds, reservoirs, wetlands, seeps, springs);

   b) All existing structures (including archaeological features, ruins and stone walls);

   c) All significant physical features; and

   d) Existing trails and greenways, and preserved lands and farmland.

2. Architectural elevation renderings, if structures are proposed (preliminary for subdivision applications).

3. A list of any pre-existing encumbrances affecting the property (e.g., easements, deed restrictions, covenants).

4. Copies of any related surveys, site plans, professional reports and environmental site assessments.

B. ***Highlands Resource Submission Requirements.*** For applications involving properties containing any Highlands Resource, Highlands Resource Area or Special Protection Area, all submission checklist items required pursuant to each, as provided at § 9.4.4 through § 9.4.14, below.

C. ***Cluster Development Requirements.*** For applications proposing Cluster Development, all submission checklist items required pursuant to § 9.4.14, below.

§ 9.4.4 **Forest Resources**

A. Plans identifying forests using the Highlands Council Forest Resource Area, Forest Integrity Indicators, and Total Forest GIS layers for forest resources.

B. Information identifying upland forests existing outside of the limits of the Total Forest Area by use of the Forest Determination methodology of APPENDIX A (N.J.A.C. 7:38-3.9).

C. Where required in connection with disturbances pursuant to § 6.1.5 through § 6.1.6, Forest Impact Report (§ 6.1.7) and Forest Mitigation Plan (§ 6.1.8).

§ 9.4.5 **Highlands Open Waters and Riparian Areas**

A. Maps showing the location of all Highlands Open Waters, Highlands Open Waters buffers, and Riparian Areas, as provided in this Ordinance.

B. For linear development pursuant to § 6.2.5 G.3 or § 6.2.5 H.2, all items required as listed therein.

C. For proposed disturbance of a previously disturbed Highlands Open Waters buffer, pursuant to § 6.2.5 H or Riparian Area, pursuant to § 6.2.6 A:

1. A current property survey prepared by a licensed New Jersey Land Surveyor indicating: the metes and bounds of the subject property; the location and dimensions of existing buildings and other structures located thereon; the limits and extent of graded, compacted, filled or excavated areas, not including agricultural uses; the limits and extent of areas stripped of natural vegetation and of maintained lawn areas; and any other site improvements provided in support of prior development. The full extent of the proposed area of new disturbance shall be clearly indicated pursuant to § 9.4.2 A above, with the previously-disturbed area(s) illustrated on the same sheet using shaded or shadow outline features.

2. Functional values assessment pursuant to § 6.2.7.

3. Proposed Low Impact Development techniques.

D. For proposed disturbance of High, Moderate or Low Integrity Riparian Areas pursuant to § 6.2.6 B:

1. Functional values assessment pursuant to § 6.2.7.

2. Proposed Low Impact Development techniques.

3. Riparian Area Mitigation Plan pursuant to § 6.2.6 B 1(e).

§ 9.4.6 **Steep Slopes**

A. Map showing limits of Steep Slope Protection Area as provided in this Ordinance.

B. Map showing any additional areas of contiguous steep slopes that, separately or in combination with the Steep Slope Protection Area, constitute an area of 5,000 square feet or more, including, for any proposed disturbance therein, clear delineation of slope classes as defined at § 3.2.

C. For any application proposing linear development of a Moderately or Severely Constrained slope area pursuant to § 6.3.3A, all items as listed and required therein.

D. For any application proposing disturbance of a Constrained or Limited Constrained slope pursuant to § 6.3.3B, a steep slope development plan indicating proposed Low Impact Development techniques, slope stabilization techniques, soil erosion and sediment control measures, stormwater controls, and methods of protection proposed for existing slope vegetation and trees.

E. For any application proposing to disturb 5,000 square feet or more of Constrained or Limited Constrained Steep Slopes :

1. Environmental Impact Statement or Report including specifically: the impact of the proposed development on Highlands Regional Scenic Resources; aesthetic impacts related to visibility and aesthetic quality of the proposed development; the extent of proposed landform grading, stabilization and retaining structures; and impacts on other environmental features addressed by the Steep Slopes provisions of this Ordinance.

2. Hydrology, drainage and flooding analysis report or reports prepared in support of conformance with the municipal stormwater management plan and regulations adopted pursuant to N.J.A.C. 7:8, or a Flood Hazard Area Control Act application pursuant to N.J.A.C. 7:13.

§ 9.4.7 **Critical Habitat**

A. Maps identifying Critical Habitat using the Critical Habitat GIS layers for Critical Wildlife Habitat, Significant Natural Areas and Vernal Pools, as provided in this Ordinance.

§ 9.4.8 **Carbonate Rock Areas**

A. Map identifying the limits of Carbonate Rock Area as provided in this Ordinance.

B. For applications proposing development within any Carbonate Rock Drainage Area, map identifying the limits of same.

§ 9.4.9 **Lake Management Areas**

A. Map identifying the Lake Management Area and Lake Management Tier(s) as provided in this Ordinance.

B. For linear development with a Shoreland Protection Tier (Highlands Open Waters buffer) pursuant to § 6.2.5 G.3 or § 6.2.5 H.2, all items required as listed therein.

C. For proposed disturbance of a previously disturbed Shoreland Protection Tier (Highlands Open Waters buffer), pursuant to § 6.2.5 H, all items as required at § 9.4.5 C, above for Highlands Open Waters buffers.

D. For proposed disturbance of a Water Quality Management Tier, a stormwater management plan pursuant to § 6.6.3.

E. For any proposed development within the Scenic Resources Tier, a visual assessment survey, tree protection plan, and exterior lighting plan pursuant to § 6.6.4 B.

§ 9.4.10 **Prime Ground Water Recharge Areas**

A. Map identifying Prime Ground Water Recharge Areas as provided in this Ordinance.

B. For any application proposing to disturb a Prime Ground Water Recharge Area:

1. Site analysis and proposed Low Impact Development techniques pursuant to § 6.8.3.

2. PGWRA Mitigation Plan pursuant to § 6.8.3 D.

3. Hydrology, drainage and flooding analysis report or reports prepared in support of conformance with municipal stormwater management plan and regulations pursuant to N.J.A.C. 7:8 or a Flood Hazard Area Control Act application pursuant to N.J.A.C. 7:13.

4. Site specific Geologic, Hydrogeologic and Pedologic analysis to determine the overall recharge rate and volume and to determine the location with the lowest recharge potential within the PGWRA. The submitted analysis report shall include appropriately scaled geologic, hydrogeologic and

pedologic maps and cross sections showing all pertinent geologic, hydrogeologic and pedologic features. The report shall also present all relevant analytical results, calculations and graphical data.

C. For any existing or proposed Potential Contaminant Source (APPENDIX B and APPENDIX C), proposed Best Management Practices pursuant to § 6.9.3 A.

§ 9.4.11 **Wellhead Protection**

A. Map identifying Wellhead Protection Areas (WHPAs) and time of travel Tiers as provided in this Ordinance. Where more than one WHPA Tier intersects an existing or proposed Potential Contaminant Source (APPENDIX B and APPENDIX C) within a project site, identify the more protective Tier as the applicable Tier for that Potential Contaminant Source.

B. Identification and description of each major or minor Potential Contaminant Source (APPENDIX B and APPENDIX C) on the property, whether existing or proposed, and for each, the relevant Tier and proposed Best Management Practices pursuant to § 6.9.3 A.

C. Narrative and mapped description of the extent to which the application is consistent with the Areawide WQMP Plan.

D. Copies of any related hydrogeologic/geologic reports, remediation reports, results of soil or ground water analyses or other environmental assessment reports (i.e., Phase I or Phase II reports).

§ 9.4.12 **Historic Resource Protection**

A. [*If applicable*:] Map identifying sites or districts identified in the Highlands Historic, Cultural and Archaeological Resources Inventory that are located on or adjacent to the project site, pursuant to § 6.11.2.

B. [*If applicable*:] All submission requirements pursuant to the Historic Preservation standards of § 6.11.3. [*Township will address "if applicable" language prior to adoption.*]

§ 9.4.13 **Scenic Resource Protection**

A. Map identifying Scenic Resources as provided in this Ordinance.

B. For any application proposing improvements to lands located within the boundary lines delineated by a Scenic Resource Management Plan approved by the Highlands Council, all submission requirements set forth within such Plan.

C. For any application proposing improvements to lands located within the boundary lines delineated by a Scenic Resource Management Plan approved by the Highlands Council that crosses municipal and/or county boundary lines, any supplemental submission materials as may be prescribed by the adopted Scenic Resources Management Plan.

§ 9.4.14 **Cluster/Conservation Design Development**

A. Property survey(s) identifying the limits and configuration of the proposed Cluster Project Area, and indicating all tract or parcel areas to the nearest one hundredth acre.

B. Development plans applicable to the Development Set Aside of the Cluster Project Area, including all details as required pursuant to the municipal subdivision ordinance, to define and describe all proposed supporting infrastructure, including but not limited to: roadways, curbing, sight lines, street right-of-ways, utilities (e.g., water, sewer, gas, electric, telecommunications), stormwater management, lighting, street tree plantings, common areas, signage and landscaping.

C. Development plans applicable to the Development Set Aside indicating proposed buffering, lot lay-out, lot sizes, configurations, and dimensions, building envelopes, building setbacks and yard areas.

D. Proposed plans applicable to the Preservation Set Aside of the Cluster Project Area, including:

   1. Plans for Agricultural or Horticultural development, if applicable.

   2. Plans for open space preservation, if applicable, including active or passive recreation amenities.

   3. Proposed conservation restrictions, identifying intended dedications regarding all preserved portions.

E. Identification of any preserved land or land known to be targeted for preservation (agriculture and open space) located within 200 feet of the subject property.

ARTICLE 10. APPEALS, WAIVERS, EXCEPTIONS

§ 10.1 APPLICABILITY

Except to the extent modified by the provisions of this Article, the existing provisions of the underlying municipal land use ordinance with respect to appeals, waivers and exceptions shall remain in full force and effect. This Article shall not be construed to alter the applicable timeframes, procedural requirements or criteria for decision-making as set forth under the MLUL, and as provided consistent therewith in the underlying municipal land use ordinance.

§ 10.2 APPEALS

A. ***Administrative Officer Decision.*** Any order, requirement or decision of any municipal official made or issued in the course of the enforcement of the provisions of this Ordinance may be appealed to the Zoning Board of Adjustment in accordance with all applicable provisions of the MLUL (including but not limited to N.J.S.A. 40:55D-70(a), -70.2, and -72 through -75).

B. ***Interpretations.*** Requests for interpretation of the maps and various provisions of this Ordinance may be made by application to the Zoning Board of Adjustment pursuant to N.J.S.A. 40:55D-70(b). The Board, in rendering any such decisions shall be guided by the map protocols listed at § 4.5 and the specific language of the Ordinance provisions in question. The Board may seek the advice and counsel of the Highlands Council or if applicable to a Preservation Area boundary line, the NJDEP, in resolving any matter of interpretation and all final Board decisions shall remain subject to Highlands Council call-up and review provisions as set forth at § 9.2.2.

C. ***"C" Variances.*** All MLUL criteria applicable to variance relief under N.J.S.A. 40:55D-70(c) shall apply in the consideration of applications seeking such relief from the provisions of this Ordinance. Such relief shall apply with respect to the requirements of Article 5, Zone District Regulations with the exception that for the items listed at E, below, relief shall in addition require prior authorization of the Highlands Council. Where certain deviations from the strict application of the provisions of this Ordinance or the underlying municipal Zoning Ordinance will minimize or eliminate adverse impacts to Highlands Resources, Resource Areas, or Special Protection Areas, these benefits shall be given significant weight in the analysis of approval criteria.

D. ***"D" Variances.*** All MLUL criteria applicable to variance relief under N.J.S.A. 40:55D-70(d) shall apply in the consideration of applications seeking such relief from the relevant provisions of this Ordinance. Such relief shall apply with respect to the requirements of Article 5, Zone District Regulations-with the exception that for the items listed at E, below, relief shall in addition require prior authorization of the Highlands Council. Where certain deviations from the strict application of the provisions of this Ordinance or the underlying municipal Zoning Ordinance will minimize or eliminate adverse impacts to Highlands Resources, Resource Areas, or Special Protection Areas, these benefits shall be given significant weight in the analysis of approval criteria. For purposes of clarification, requests for relief that pertain to specific provisions of this Ordinance regarding permitted uses shall be cognizable as requests for "d" variance relief pursuant to N.J.S.A. 40:55D-70(d).

E. ***Highlands Council Jurisdiction.*** Relief from any of the following specific provisions of Article 5 of this Ordinance may be granted by the reviewing Board or other municipal authority only where a waiver has been issued by the Highlands Council. No such application shall be deemed complete or

considered for review by the Board or other municipal authority absent such authorization. Applicants seeking any such relief shall make application directly to the Highlands Council.

1. *Prohibited Uses.* All provisions of § 5.2.3.

2. *Special Environmental Zone.* All provisions of § 5.2.

3. *Water Availability Requirements.* All provisions of § 5.3.4.

4. *Septic System Density.*

   a) Any application for Non-Major Highlands Development in the Preservation Area proposing a septic system density that is greater than that permitted (i.e., fewer acres per septic system than required).

   b) Any Planning Area application proposing a new or expanded septic system pursuant to § 5.3.2, in excess of the available (including any aggregated) septic system yield of the parcels associated with the application.

§ 10.3 WAIVERS AND EXCEPTIONS

Relief from any provision of Article 6 or Article 7 of this Ordinance shall require issuance of either a Highlands Act waiver or an exception, as provided in this subsection. Highlands Act waivers may be issued only by the NJDEP or the Highlands Council, as appropriate. Exceptions may be granted by the reviewing municipal Board or authority only where the review standards of this subsection have been satisfied.

§ 10.3.1 Highlands Act Waiver Provisions

Highlands Act waivers may be issued only by the NJDEP or the Highlands Council in accordance with the respective rules and criteria established by each agency in accordance with the provisions of the Highlands Act and the Highlands Regional Master Plan. A Highlands Act waiver shall be required in the event of any application proposing the disturbance of a Highlands Resource, Resource Area or Special Protection Area in excess of, or not in compliance with, that authorized under the applicable provisions of Article 6 and Article 7 of this Ordinance. Highlands Act waivers shall also be required for any application proposing: a) use of net or conditional water availability in excess of that authorized by the Highlands Council; b) water deficit mitigation insufficient to comply with mitigation requirements of the Highlands Council pursuant to § 6.7.7 B.; or c) installation or expansion of a use or structure listed as a PCS at Appendix B or Appendix C (where not otherwise prohibited by use restrictions of § 5.2.3) in a manner inconsistent with all provisions and conditions of approval of § 6.9.3. . The issuance of a Highlands Act Waiver shall in no case be construed to alter or obviate the requirements of any other applicable State or local laws, rules, regulations, development regulations, or ordinances.

§ 10.3.2 Exception Provisions

A. For applications other than those cited at § 10.3.1, above, the reviewing Board or other authority may grant exceptions from the strict application of the provisions of Article 6 and Article 7 of this Ordinance only where the applicant demonstrates and the reviewing entity finds that:

   1. The deviation is unavoidable and represents the minimum feasible under the particular circumstances surrounding the project proposal, and the grant of relief is reasonable, necessary and supports the general purpose and intent of the applicable provisions; or

2. The literal enforcement of the provision(s) of the ordinance at issue is impracticable or will exact undue hardship because of peculiar conditions pertaining to the land in question.

B. The approval of an exception must be accompanied by a detailed justification, and is subject to review by the Highlands Council. Any applicant seeking approval of an exception shall provide such justification, in writing, including at a minimum an explanation of how and to what extent the following conditions are addressed:

1. The exception addresses A.1 or A.2 above;

2. The exception provides relief only to the minimum extent necessary;

3. Other environmental features are not damaged in the process of protecting the regulated resources; and

4. No alternative exists that will allow for at least a minimum practical use of the property (if applicable).

ARTICLE 11. ENFORCEMENT, VIOLATIONS, PENALTIES

§ 11.1 ENFORCEMENT

Enforcement of the provisions of this Ordinance shall be the responsibility of the Township Zoning Officer, Engineer, Health Department, Construction Code Official and any other officer or entity designated by the Township Administrator, Manager, or Governing Body, as applicable. Enforcement shall occur in the case of any activity, improvement, or development project that violates any provision of this Ordinance, whether or not subject to a permitting or approval process pursuant to this Ordinance, or the underlying municipal land use ordinances.

§ 11.2 INSPECTIONS

A. ***Site Inspections.*** The Township Engineer is authorized to and shall periodically inspect all project sites for compliance with development approvals pursuant to this Ordinance. The Inspector shall in addition:

1. Verify of baseline conditions in all areas designated for conservation easements, deed restrictions or other means of resource preservation.

2. Sequence compliance inspections to ensure the protection of on-site and off-site resources, achievement of site construction and environmental impact requirements, placement of conservation easement monuments, etc.

3. Verify "as built" conditions to ensure compliance with all approvals, conservation easements, deed restrictions or other required means of resource preservation.

§ 11.3 ADMINISTRATIVE COMPLIANCE

The Township Zoning Officer shall be authorized to issue a stop-work order, revoke building permits, refuse to approve further work, or deny certificates of occupancy or approval, and to impose mandatory remedial and corrective measures including full restoration of any resources that are improperly disturbed.

§ 11.4 PENALTIES

Civil and criminal penalties for violations of this Ordinance shall be as established in accordance with Section 54-37.2 Violations and Penalties, b. Penalties, of the Township Code.

APPENDIX A. FOREST DETERMINATION

For purposes of this Ordinance, the determination of whether a wooded area constitutes a forest, shall rely upon the Highlands Council procedures set forth herein, as adapted from NJDEP Preservation Area Rules (at N.J.A.C. 7:38-3.9). These standards shall apply to the entirety of the Highlands Area whether inclusive solely of Preservation Area, Planning Area, or any combination of the two.

A. The applicant shall identify on a site plan all forest in existence on the lot as of August 10, 2004 as well as those forest areas that have subsequently developed. An upland forest area shall be determined in accordance with the following method:

1. The limit of the forest shall be identified using aerial photographs obtained from the NJDEP, free of charge, at www.state.nj.us/dep/gis/; and

2. If the aerial photograph contains areas of sporadic coverage that have not been identified as forest by the applicant, the applicant shall lay a one-half acre grid system over the photograph. A standard 142 square foot grid block shall be used, as provided by the NJDEP at its website. Any grid block containing 33 percent or greater forest cover shall be considered as forest, unless the applicant demonstrates otherwise using the procedure established in B., below.

3. If the applicant has an approved forest management plan identifying forest on a site, the limits of the forest indicated in the plan may be submitted as an additional resource, but shall not be used in lieu of aerial photographs.

B. Alternatively, a forest determination may be made based upon the size and density of trees on the subject property, in accordance with the following method:

1. Select two 25-foot by 25-foot plots in every acre of the site potentially containing a forest.

   a) The plots shall be located in the portion of each acre having the highest density of trees as determined by a visual inspection.

   b) If the tree size and density are very uniform over some or the entirety of the site, one plot may be selected in the area of uniformity. However, the point total from the one plot shall be doubled to determine the total point value for the sampled acre pursuant to B.5., below.

2. In each plot, measure the diameter of each tree at four and one-half feet above ground (diameter at breast height, dbh).

3. Score each tree as follows:

Diameter of Tree (dbh)	*Points*
1 inch to 3 inches	2
Between 3 and 7 inches	4
7 inches to 12 inches	6
Greater than 12 inches	8

4. Add together the scores for all of the trees in each plot.

5. If the total score for both plots is equal to or greater than 16, the sampled acre is regulated as a forest. For example, if the two 25-foot by 25-foot plots contain a total of three trees which are two

inches in diameter, two trees which are six inches in diameter, and one tree which is 15 inches in diameter, the score for the sampled area would be: (3x2)+(2x4)+(1x8) = 22, and the sampled acre is considered a forest.

6. If a sampled acre is a forest, the applicant shall assume that a half-acre of ground surrounding all sides of the sampled acre is also forest except for the surrounding areas that are sampled by the applicant and score under 16. In that case, a sufficient number of plots in the surrounding area shall be sampled by the applicant to delineate the forest portion of the surrounding area.

7. The applicant shall submit the results of field sampling data provided in B.1 through B.6 above. The outer perimeter of all sample plots shall be flagged in the field and their locations shown on a plan.

8. For a newly planted or regenerating forest, an area shall be considered forest if there are 408 seedlings or saplings per sampled acre, that is, the total number of seedlings or saplings in the two sample plots is 12 or more. For the purposes of this section, a tree will be considered a seedling or sapling if it is has a caliper (diameter) of less than one (1) inch.

9. Agricultural and/or horticultural uses such as orchards, tree farms and nurseries are not considered forest under this section.

C. The limit of the forest shall be the outermost edge of the canopy of the forest area identified in A. through B., above.

APPENDIX B. MAJOR POTENTIAL CONTAMINANT SOURCES

Land uses and activities determined by the Highlands Council (based on New Jersey Safe Drinking Water Act regulations at N.J.A.C. 7:10 and NJDEP regulations) to be Major Potential Contaminant Sources include the following:

1. Any facility containing radioactive materials and/or explosive devices.
2. Permanent storage or disposal of hazardous wastes, industrial or municipal sludge or radioactive materials, including solid waste landfills.
3. Collection and transfer facilities for hazardous wastes, solid wastes that contain hazardous materials, and radioactive materials.
4. Any use or activity requiring the underground storage of a hazardous substance or waste in excess of an aggregate total of 50 gallons.
5. Underground fuel and chemical storage and oil tanks regulated by NJDEP under provisions of the Underground Storage of Hazardous Substances Act (N.J.S.A. 58:10A-21 et seq.).
6. Above-ground storage facility for a hazardous substance or waste with a cumulative capacity greater than 2,000 gallons.
7. Any industrial treatment facility lagoon.
8. Any industrial facility with a SIC Code number included under the New Jersey Safe Drinking Water Act Regulations at N.J.A.C 7:10A-1.14, Table II(N)A, with a toxicity number of II or greater. (See APPENDIX D.)
9. Automotive service center (repair & maintenance).
10. Landfill.
11. Dry cleaning processing facility.
12. Road salt storage facility.
13. Cemetery.
14. Highway maintenance yard.
15. Truck, bus, locomotive maintenance yard.
16. Site for storage and maintenance of heavy construction equipment and materials.
17. Site for storage and maintenance of equipment and materials for landscaping, excluding household storage and maintenance of such equipment.
18. Livestock operation containing 300 or more Animal Units (AU) [1 AU= 1000 pounds of live animal weight] as defined by the NJ Department of Agriculture in its Criteria and Standards for Animal Waste Management, at NJAC 2:91.
19. Quarrying and/or mining facility.
20. Asphalt and/or concrete manufacturing facility.
21. Junkyard/auto recycling and scrap metal facility.
22. Residential or agricultural motor fuel in NJDEP exempted underground storage tanks (i.e., under 1,000 gallons).

APPENDIX C. MINOR POTENTIAL CONTAMINANT SOURCES

Land uses and activities determined by the Highlands Council (based on New Jersey Safe Drinking Water Act regulations at N.J.A.C. 7:10 and NJDEP regulations) to be Minor Potential Contaminant Sources include the following:

1. Underground storage of hazardous substance or waste of less than 50 gallons.
2. Underground heating oil storage tank with a capacity of less than 2,000 gallons.
3. Sewage treatment facility regulated by a NJPDES permit granted under NJAC 7:14A.
4. Sanitary sewer system, including sewer line, manhole, or pump station.
5. Industrial waste line.
6. Septic leaching field.
7. Facility requiring a ground water discharge permit issued by the NJDEP pursuant to N.J.A.C 7:14A et seq.
8. Stormwater retention-recharge basin.
9. Dry well.
10. Storm water conveyance line.
11. Waste oil collection, storage and recycling facility.
12. Agricultural chemical bulk storage and mixing or loading facility including crop dusting facilities.
13. Above-ground storage of hazardous substance or waste in quantities of less than 2,000 gallons.
14. Livestock operation containing 8 or more Animal Units (AU) [1 AU= 1000 pounds of live animal weight] or those receiving 142 or more tons of animal waste per year as defined by the NJ Department of Agriculture pursuant to its Criteria and Standards for Animal Waste Management, at NJAC 2:91.

APPENDIX D. MAJOR POTENTIAL POLLUTANT SOURCES

Facilities with Toxicity Ratings of II or Greater
N.J.A.C. 7:10A-1.14(c)4, Table II(N)A

*SIC Code for Industrial Facility**	*Description of Industrial Facility which includes activities that may release hazardous substances*	*Toxicity Rating*
Any SIC Code	All ground water remediation of toxic substances, including priority pollutants	V
Any SIC Code	Contaminated storm water runoff from any type of facility listed below	
0721	Crop dusting and spraying	IV
10xx	Metal mining	V
12xx	Coal mining	III
1475	Phosphate rock mining	IV
22xx	Textile mills with finishing operations (dyeing, coating, etc.)	V
2491	Wood preserving	VI
2493	Reconstituted wood products	II
25xx	Furniture & fixtures with metal finishing	V
261x, 262x, 263x	Pulp, paper, and paperboard mills	V
27xx	Printing & publishing	II
2812	Inorganic chemicals, alkalies & chlorine	V
2813	Indus trial gases	II
2816	Inorganic pigments	IV
2819	Industrial inorganic chemicals	IV
282x	Plastic materials & synthetic resins	V
283x	Drugs	V
284x	Soaps, detergents, etc.	III
285x	Paints, etc.	IV
2861	Gum & wood chemicals	III
2865, 2869	Industrial organic chemicals	VI
2879	Pesticides & agricultural chemicals	VI
289x, except 2891	Miscellaneous chemical products	IV
2891	Adhesives & sealants	V
29xx	Petroleum refining	V
30xx	Rubber & plastic products	IV
3111	Leather tanning & finishing	IV
331x, except 3313	Steel mills	VI
3313	Electrometallurgical products, except steel	III
332x	Iron & steel foundries	V
333x	Primary smelting, nonferrous metals	VI
334x	Secondary smelting, nonferrous metals	V
335x	Rolling, drawing, extruding, nonferrous metals	V
336x	Nonferrous foundries	V
339x	Miscellaneous primary metals products	V
341x, 342x, 343x, 344x, 345x, 346x, except 3431 & 3463	Fabricated metal products, with metal finishing	V

**SIC (Standard Industrial Classification) Codes are determined from the Federal Manual (1987) issued by the United States Office of Management and Budget.*

*SIC Code for Industrial Facility**	*Description of Industrial Facility which includes activities that may release hazardous substances*	*Toxicity Rating*
3431	Enameled sanitary ware, cast iron basis	VI
3463	Nonferrous forgings	V
347x	Plating & coating	V
348x	Ordinance, with metal finishing	V
348x	Ordinance, explosive load, assembly, packing	IV
349x, except 3497	Miscellaneous fabricated metal products, with metal finishing	V
3497	Metal foil & leaf	V
35xx	Industrial/commercial machinery & equipment, with metal finishing	V
36xx	Electronic equipment, with metal finishing or porcelain enameling	V
3624	Carbon & graphite products	V
3671	Cathode ray tubes	V
3672	Printed circuit boards	V
3674	Semiconductors	VI
3679	Electronic crystals only	III
3691, 3692	Batteries	IV
37xx, except 3731	Transportation equipment, with metal finishing	V
3731	Ship building	IV
38xx	Measuring, analyzing & controlling instruments, with metal finishing	V
3844, 3845	Measuring, analyzing & controlling instruments, with electron tube manufacture	V
3861	Photographic related chemicals	V
39xx	Miscellaneous manufacturing industries, with metal finishing	V
4231	Trucking terminals	III
4493	Marinas	III
4499	Water transportation services	III
46xx	Pipelines, except natural gas	V
4911, 4931	Electric services	IV
4941	Water supply treatment	IV
4953	Solid waste facilities	IV
4953	Hazardous waste treatment facilities	VI
5052	Coal & other minerals & ores	V
5093	Scrap & waste materials	VI
5169	Chemicals & allied products	VI
5171	Petroleum bulk stations & terminals	V
5191	Farm supplies	IV
7211, 7215, 7216 & 7217	Laundries, dry-cleaning & carpet/upholstery cleaning	II
7213, 7218	Linen supply & industrial launderers	IV
7342	Disinfecting & pest control services	VI
7389	Solvents recovery services only	VI
7542	Car & truck washes	II
7699	Repair shops, with metal finishing	V
8062	General medical & surgical hospitals	VI
8069	Specialty hospitals	VI
8071	Medical laboratories	VI
8731	Commercial research organizations	IV
8733	Non-commercial research organizations	IV

**SIC (Standard Industrial Classification) Codes are determined from the Federal Manual (1987) issued by the United States Office of Management and Budget.*

APPENDIX E. HIGHLANDS ACT PROVISIONS ON AGRICULTURE/HORTICULTURE

Provisions of the Highlands Act regarding agricultural and horticultural development apply only to such development in the Preservation Area where it results in specified increases in agricultural impervious cover, as provided at N.J.S.A. 13:20-29, below.

C.13:20-29 Agricultural, horticultural development, review required; enforcement.

31. a. (1) Any agricultural or horticultural development in the preservation area that would result in the increase, after the date of enactment of this act either individually or cumulatively, of agricultural impervious cover by three percent or more of the total land area of a farm management unit in the preservation area shall require the review and approval by the local Soil Conservation District of a Farm Conservation Plan which shall be prepared and submitted by the owner or operator of the farm management unit. Upon approval of the Farm Conservation Plan by the local Soil Conservation District, the owner or operator of the farm management unit shall implement the plan on the farm management unit. The local Soil Conservation District shall transmit a copy of an approved Farm Conservation Plan to the State Soil Conservation Committee, and, if any part of the farm management unit is preserved under any farmland preservation program, to the State Agriculture Development Committee.

(2) Any agricultural or horticultural development in the preservation area that would result in the increase, after the date of enactment of this act either individually or cumulatively, of agricultural impervious cover by nine percent or more of the total land area of a farm management unit in the preservation area shall require the review and approval by the local Soil Conservation District of a resource management systems plan which shall be prepared and submitted by the owner or operator of the farm management unit.

Prior to the approval of a resource management systems plan by a local Soil Conservation District, a copy of the resource management systems plan shall be forwarded by the local Soil Conservation District to the Department of Environmental Protection for review and approval, with or without conditions, or denial within 60 days after receipt by the department. Upon approval of the resource management systems plan by the local Soil Conservation District and the Department of Environmental Protection, the owner or operator of the farm management unit shall implement the plan on the farm management unit. The local Soil Conservation District shall transmit a copy of an approved resource management systems plan to the State Soil Conservation Committee, and, if any part of the farm management unit is preserved under any farmland preservation program, to the State Agriculture Development Committee.

(3) A Farm Conservation Plan required pursuant to paragraph (1) of this subsection and a resource management systems plan required pursuant to paragraph (2) of this subsection shall be prepared in accordance with science-based standards, consistent with the goals and purposes of this act, which standards shall be established by the State Board of Agriculture and the Department of Agriculture, in consultation with the Department of Environmental Protection, the State Agriculture Development Committee, Rutgers Cooperative Extension, and the Natural Resources Conservation Service in the United States Department of Agriculture. Within 270 days after the date of enactment of this act, the State Department of Agriculture, in consultation with the Department of Environmental Protection, shall develop and adopt, pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), these standards and any other rules and regulations necessary to implement this section.

b. (1) If any person violates any provision of subsection a. of this section, any rule or regulation adopted pursuant to subsection a. of this section, or a Farm Conservation Plan or a resource management systems plan approved pursuant to subsection a. of this section, the Department of Agriculture or the local Soil Conservation District may institute a civil action in the Superior Court for injunctive relief to prohibit and prevent the violation or violations and the court may proceed in a summary manner.

(2) (a) Any person who violates any provision of subsection a. of this section, any rule or regulation adopted pursuant to subsection a. of this section, or a Farm Conservation Plan or a resource management systems plan approved pursuant to subsection a. of this section shall be liable to a civil administrative penalty of up to $5,000 for each violation. If the violation is of a continuing nature, each day during which it continues shall constitute an additional, separate, and distinct offense. No assessment shall be levied pursuant to this subsection until after the party has been notified by certified mail or personal service and provided an opportunity for a hearing.

(b) Any amount assessed under this subsection shall fall within a range established in a penalty schedule adopted by the Department of Agriculture pursuant to the "Administrative Procedure Act," which shall take into account the seriousness and duration of the violation and whether the violation involves the failure to prepare or to implement a Farm Conservation Plan or resource management systems plan. The schedule shall also provide for an enhanced penalty if the violation causes an impairment to water quality. Any civil administrative penalty assessed under this subsection may be compromised by the Secretary of Agriculture upon the posting of a performance bond by the violator, or upon such terms and conditions as the secretary may establish by regulation.

(c) Any person who fails to pay a civil administrative penalty in full pursuant to this subsection shall be subject, upon order of a court, to a civil penalty of up to $5,000 for each violation. If the violation is of a continuing nature, each day during which it continues shall constitute an additional, separate, and distinct offense. Any such civil penalty imposed may be collected with costs in a summary proceeding pursuant to the "Penalty Enforcement Law of 1999," P.L.1999, c.274 (C.2A:58-10 et seq.). The Superior Court and the municipal court shall have jurisdiction to enforce the provisions of the "Penalty Enforcement Law of 1999" in connection with this subsection.

(d) All penalties collected pursuant to this subsection shall either be used, as determined by the council, by the State Agriculture Development Committee for the preservation of farmland in the preservation area or by any development transfer bank used or established by the council to purchase development potential in the preservation area.

c. Nothing in this act, the regional master plan, any rules or regulations adopted by the Department of Environmental Protection pursuant to this act, or any amendments to a master plan, development regulations, or other regulations adopted by a local government unit to specifically conform them with the regional master plan shall be construed to alter or compromise the goals, purposes, policies, and provisions of, or lessen the protections afforded to farmers by, the "Right to Farm Act," P.L.1983, c.31 (C.4:1C-1 et seq.), and any rules or regulations adopted pursuant thereto.

d. The provisions of this section shall not be construed to alter or obviate the requirements of any other applicable State or local laws, rules, regulations, development regulations, or ordinances.

APPENDIX F. NJDA HIGHLANDS AGRICULTURAL REGULATIONS

Provided herein for reference, pertinent provisions of N.J.A.C. 2:92, "Agricultural Development in the Highlands," regarding the development and implementation of Farm Conservation Plans and Resource Management System Plans.

§ 2:92-3.1 Farm Conservation Plan requirements

(a) Agricultural or horticultural development that results, individually or cumulatively, in at least three percent but less than nine percent increase in new agricultural impervious cover to the total land area of the Farm Management Unit since enactment of the Highlands Act (August 10, 2004) requires the development and implementation of a Farm Conservation Plan approved in accordance with this section.

1. Prior to any development activity, the owner or operator of a farm management unit or his agent shall develop a farm conservation plan with the assistance of the NRCS, TSP or an appropriate agent in conformance with Sections III and IV of the June 1, 2005 NRCS NJ-FOTG, as amended and supplemented, which is hereby adopted and incorporated by reference.

i. Copies of the NJ-FOTG are available from the NRCS Field Offices and the State Office at 220 Davidson Ave, 4th Floor, Somerset, NJ 08873.

ii. An electronic copy of the NJ-FOTG is available at http://www.nrcs.usda.gov/technical/efotg/.

iii. A copy of this document is on file in the NJDA office of the Director, Division of Agricultural and Natural Resources, P.O. Box 330, Trenton, NJ 08625.

2. The following shall be contained in the Farm Conservation Plan submitted for approval:

i. The name, address, block(s) and lot(s) of the operation and the name and telephone number of the emergency contact;

ii. The owner or operator's name, signature and date;

iii. A soil map;

iv. An aerial photograph or diagram of the field;

v. Identification of soil, water and animal resources, specifically, threatened and endangered species;

vi. A list of conservation practices to be implemented;

vii. The location and schedule for applying new practices;

viii. Records of plan implementation activities;

ix. A plan for operation and maintenance; and

x. Any other site-specific information necessary for plan certification.

3. The Farm Conservation Plan shall be reviewed, and if appropriate, approved by the local Soil Conservation District. Plans developed in consultation with entities other than the NRCS or TSP must be reviewed by NRCS for approval prior to submission to the local Soil Conservation District for review.

4. The local Soil Conservation District shall transmit a copy of the approved plan to the State Soil Conservation Committee. If any part of the Farm Management Unit is preserved under any farmland

preservation program, the local Soil Conservation District shall also transmit a copy of the plan to the State Agriculture Development Committee.

5. The local Soil Conservation District shall approve the Farm Conservation Plan if it finds that the plan meets the NJ-FOTG Quality Criteria (Section III) and Practice Standards (Section IV) for soil, water and animal resource concerns, specifically threatened and endangered species.

6. The Farm Conservation Plan shall be executed in accordance with the implementation schedule contained in the approved plan.

7. Anyone aggrieved by a decision of the Soil Conservation District shall have an opportunity to appeal in accordance with 2:90-1.6.

8. Anyone who is aggrieved by the determination made in accordance with (a)7 above shall, upon written request transmitted to the Department within 20 days of that determination, be afforded the opportunity for a hearing thereon in the manner provided for contested cases pursuant to the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq. and the Uniform Administrative Procedure Rules, 1:1.

i. Requests for hearings shall be sent to the Director, Division of Agriculture and Natural Resources, N.J. Department of Agriculture, PO Box 330, Trenton, New Jersey 08625-0330.

§ 2:92-4.1 Resource Management System Plan requirements

(a) Agricultural or horticultural development that results, individually or cumulatively, in at least nine percent or more of new agricultural impervious cover to the total land area of the Farm Management Unit since enactment of the Highlands Act (August 10, 2004) requires the development and implementation of a Resource Management System Plan in accordance with this section.

1. Prior to any development activity, the owner or operator of a farm management unit or his agent shall develop a Resource Management System Plan with the assistance of the NRCS, TSP or appropriate agent in conformance with the June 1, 2005 NRCS NJ-FOTG, as amended and supplemented, which is hereby adopted and incorporated by reference.

i. Copies of the NJ-FOTG are available from the NRCS Field Offices and the State Office at 220 Davidson Ave, 4th Floor, Somerset, NJ 08873.

ii. An electronic copy of the NJ-FOTG is available at http://www.nrcs.usda.gov/technical/efotg/.

iii. A copy of this document is on file in the NJDA office of the Director, Division of Agricultural and Natural Resources, P.O. Box 330, Trenton, NJ 08625.

2. The following shall be contained in the RMS plan submitted for approval:

i. The name, address, block(s) and lot(s) of the operation and the name and telephone number of the emergency contact;

ii. The owner or operator's name, signature and date;

iii. A soil map;

iv. An aerial photograph or diagram of the field;

v. Identification of soil, water, air, plant and animal resources including endangered and threatened species;

vi. A list of conservation practices to be implemented;

vii. The location and schedule for applying new practices;

viii. Records of plan implementation activities;

ix. A plan for operation and maintenance; and

x. Any other site-specific information necessary for plan certification.

3. Upon receipt and prior to approval, the local Soil Conservation District will transmit a copy of the Resource Management System Plan to the DEP, who must review and approve it with or without conditions or deny it within 60 days of receipt.

4. The Resource Management System Plan shall be reviewed, and if appropriate, approved by the local Soil Conservation District. Plans developed by entities other than the NRCS or TSP must be reviewed by NRCS for approval prior to submission to the local Soil Conservation District for review.

5. The local Soil Conservation District shall transmit a copy of the approved plan to the State Soil Conservation Committee. If any part of the Farm Management Unit is preserved under any farmland preservation program, the local Soil Conservation District shall also transmit a copy of the plan to the State Agriculture Development Committee.

6. The local Soil Conservation District shall approve the RMS plan if it finds that it meets the NJFOTG Quality Criteria and Standards for soil, water, air, plants and animal resources.

7. The Resource Management System Plan shall be executed in accordance with the implementation schedule contained in the approved plan.

8. Anyone aggrieved by a decision of the local Soil Conservation District shall have an opportunity to appeal in accordance with 2:90-1.6.

9. Anyone who is aggrieved by the determination made in accordance with (a)8 above shall, upon written request transmitted to the Department within 20 days of the determination, be afforded the opportunity for a hearing thereon in the manner provided for contested cases pursuant to the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq. and the Uniform Administrative Procedure Rules, 1:1.

i. Requests for hearings shall be sent to Director, Division of Agriculture and Natural Resources, N.J. Department of Agriculture, PO Box 330, Trenton, New Jersey 08362-0330.

APPENDIX G. SANITARY SEWAGE VOLUMES BY FACILITY

The following table from N.J.A.C. 7:9A-7.4 is for use in calculating 300 gallon-per-day septic system equivalents by facility type, pursuant to § 5.3.5 B of this Ordinance.

The criteria listed herein are minimum standards for average facilities of the categories listed. In cases where a facility does not fall within any of the categories, the administrative authority may approve the use of other documented criteria, such as actual water data for the facility or other similar facilities, provided that the value used for design is at least 50 percent greater than the average daily volume of sewage.

Type of Establishment	**Method of Estimation (gallon per user or gallon per unit per day)**
1. Airport	5 gal/passenger
2. Assembly Hall	3 gal/seat/day
3. Auto Service Station	10 gal/car served
4. Bar	5 gal/patron
5. Bathhouse with shower	25 gal/person
without shower	10 gal/person
6. Beach Club	25 gal/person
7. Beauty parlors and salons	120 gal/day/sink
8. Boarding House, Meals	75 gal/guest(2)
	15 gal/non-resident boarder
9. Bowling Alley, no food	125 gal/lane/day
with food, add	5 gal/patron
10. Bus Stop Rest Area	5 gal/passenger
11. Cafeteria	5 gal/customer
12. Camp, Cottage (barracks type)	65 gal/person
13. Camp, Day, no meals	20 gal/person
14. Camp, Resort	100 gal/site/day(2)
15. Camp, Trailer	100 gal/site/day(2)
with toilets, add	10 gal/person/day
16. Church, with or without kitchen	3 gal/seat/day
17. Cocktail Lounge	5 gal/customer
18. Coffee Shop	5 gal/customer
19. Comfort Station/Picnic Grounds	
with toilets	10 gal/person
with toilets and showers	15 gal/person
20. Cottages	100 gal/person(2) (minimum 350 gal/dwelling unit/day)
21. Country Club	60 gal/member/day 25 gal/non-member
22. Dining Hall	5 gal/customer
23. Dormitory, Bunkhouse	40 gal/bed/day
24. Factory/Industrial Building	15 gal/employee per eight hour shift
with showers, add	15 gal/employee per eight hour shift
25. Hospital, Medical	250 gal/bed/day
26. Hospital, Mental	150 gal/bed/day
27. Hotels	130 gal/room/day
28. Institution, Other than hospital	150 gal/bed/day

Type of Establishment	Method of Estimation (gallon per user or gallon per unit per day)
29. Laundry, Self-service	50 gal/wash
30. Motel	130 gal/room/day
31. Nursing/Rest Home	150 gal/bed/day
32. Office Buildings	15 gal/employee per eight hour shift or 0.125 gal/square ft., whichever is greatest
33. Prison	150 gal/inmate/day
34. Restaurant	
sanitary wastes only	5 gal/patron only
kitchen waste, add	5 gal/patron
35. Rooming House, no meals	65 gal/bed/day
36. School, Boarding	100 gal/student/day
37. School, Day	
No cafeteria or showers	10 gal/student/day
Cafeteria only	15 gal/student/day
Cafeteria and showers	20 gal/student/day
Cafeteria, showers and laboratories	25 gal/student/day
38. Shopping Center	0.125 gal/square ft./day(1)
39. Stadium	3 gal/seat/day
40. Store	0.125 gal/square ft./day(1)
41. Swimming Pool	10 gal/person
42. Theater, Indoor	3 gal/seat/day
43. Theater, Outdoor	10 gal/parking space
44. Visitor Center	5 gal/visitor

(1) Volume of sanitary sewage for employees included within method of estimation indicated.
(2) If laundry wastes are anticipated, increase the estimated flow by 50 percent.

APPENDIX H. EXHIBITS

Exhibit 1. Township Highlands Area, Highlands Zones and Sub-Zones

Exhibit 2. Forest Resource Area, Total Forest Area, Forest Subwatershed Integrity Areas

Exhibit 3. Highlands Open Waters, Watershed Resource Value Areas, Lake Management Areas

Exhibit 4. Riparian Area, Riparian Subwatershed Integrity Areas

Exhibit 5. Steep Slope Protection Area

Exhibit 6. Critical Wildlife Habitat, Significant Natural Areas, Vernal Pools

Exhibit 7. Carbonate Rock Area, Prime Ground Water Recharge Area, Wellhead Protection Areas

Exhibit 8. Highlands Special Environmental Zone

Exhibit 9. Highlands Historic, Cultural and Archaeological Resources [*if applicable*], Highlands Scenic Resources

Exhibit 10. Net Water Availability by HUC14 Subwatershed, Highlands Domestic Sewerage Facilities, Public Community Water Systems

Exhibit 11. [*Reserved*]

Exhibit 12. [*Reserved*]