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Highlands Water Protection and Planning Council 100 North Road (Route 513) Chester, New Jersey 07930-2322 (908) 879-6737 (908) 879-4205 (fax) www.highlands.state.nj.us



JIM RILEE
Chairman

May 10, 2012

### FIRST CLASS MAIL AND E-MAIL

John Fringer, P.E. Environmental Project Manager U.S. Nuclear Regulatory Commission Office of New Reactors MailStop: T-6C32 Washington, D.C. 20555-0001

Re: Proposed Bell Bend Nuclear Power Plant

Environmental Impact Statement Alternative Site Analysis

White Township, New Jersey

Tax Block 7; Lots 3, 4, 5, 11, and part of 16

Dear Mr. Fringer:

This letter responds to your e-mail correspondence dated April 30, 2012, in which you inquired as to whether the Highlands Act and effectuating regulatory provisions would permit the construction of a nuclear power plant on the above-referenced parcels in White Township, NJ. A reply in the affirmative would require that the Nuclear Regulatory Commission complete an alternative site analysis for the proposed Bell Bend nuclear power plant's Environmental Impact Statement. The Water Protection and Planning Council (Highlands Council) is a New Jersey State agency responsible for planning and management of the Highlands Region in northern New Jersey. The short answer to your question, bearing in mind the very limited information submitted in support of your request, is that it appears that any proposal for such a facility at the referenced location would be inconsistent with the Highlands Regional Master Plan (RMP), and that the chances of securing the needed approvals would be slim. The various regulatory provisions at issue and the reasons for this very preliminary finding follow below.

The Highlands Water Protection and Planning Act, N.J.S.A. 13:20-1 et seq. ("Highlands Act"), divides the Highlands Region into two parts: the Preservation Area and the Planning Area. The Preservation Area has development restrictions imposed by the Highlands Act and implemented by the New Jersey Department of Environmental Protection ("NJDEP") through its Highlands Rules, N.J.A.C. 7:38-1 et seq. The primary purpose of the development restrictions is to reduce the effects of development on important watershed lands. The Planning Area, wherein the subject parcels are located, is that portion of the Highlands Region where the NJDEP Highlands Rules do not apply, but where the natural resource protection standards of the Highlands Regional Master Plan (RMP) may apply, and if so, in differing ways depending upon the circumstances. In the event that a municipality requires an amendment of the Wastewater Management Plan,

for example, Highlands Water Protection and Planning Act Rules stipulate that the NJDEP shall grant approval "only after receipt from the Highlands Council, of a determination of consistency with the Regional Master Plan" (N.J.A.C. 7:38-1.1(k). Further, where a Water Allocation Permit is required from NJDEP that affects Highlands Waters (which does not include the Delaware River), the permit must be consistent with the RMP. Finally, where the application involves property for which the affected Highlands municipality has aligned its planning and regulatory program to conform to the RMP, all resource protections and density constraints of the RMP would apply. To date, White Township has chosen not to conform to the Regional Master Plan for its Planning Area lands, however, a municipality may decide to do so at any time.

The RMP provides the basis to determine the capacity of the Highlands Region to accommodate appropriate economic growth while ensuring the sustainability of the resources in the Region. It establishes the capacity limitations for future growth within the Highlands Region related to both natural systems, such as protection of drinking water supplies, and the built environment, such as wastewater utilities infrastructure. The Highlands Act specifically emphasizes the protection of water resources for both potable supply and ecosystem viability but also includes goals relating to the protection of agricultural viability, ecosystems, animal and plant species, as well as scenic and historic resources. The RMP, publicly available on-line at: <a href="http://www.highlands.state.nj.us/njhighlands/master/rmp/final/highlands\_rmp\_112008.pdf">http://www.highlands.state.nj.us/njhighlands/master/rmp/final/highlands\_rmp\_112008.pdf</a>, sets standards for those protections.

As a non-conforming municipality in the Planning Area, development in White Township is not regulated by NJDEP's Highlands Rules or the Highlands Act, with the exception that, where new or amended Wastewater Management Plans or Water Allocation Permits (both issued by NJDEP) are required, consistency with the RMP is required. If this project requires the amendment of a Wastewater Management Plan or a Water Allocation Permit from the NJDEP (either or both appearing likely), specific standards of the RMP will be applied. In addition, development is still subject to other applicable State, county or federal environmental laws and regulations as well as the municipal zoning ordinance and development regulations.

If White Township ultimately chooses to conform its Planning Area to the RMP, no application for development (as defined in the Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.) will be deemed complete or considered for review by the applicable White Township land use board until and unless the applicant has obtained and provided a copy of:

- 1. A Consistency Determination from the Highlands Council indicating that the application is consistent with the RMP; or
- 2. A Consistency Determination from the Highlands Council indicating that the application is not consistent with the RMP, accompanied by a certification by the applicant's professional(s) that the application has, since review by the Highlands Council, been revised to achieve consistency with the RMP.

A Consistency Review Application can be found on the Highlands Council website at <a href="http://maps.njhighlands.us/consistency/">http://maps.njhighlands.us/consistency/</a>. This web-based tool allows users to develop a preliminary Regional Master Plan Consistency Report for any designated project area. We have produced such a Report for the subject parcels which has been copied to the enclosed CD-ROM. The Report will also be attached to the response e-mail that is being sent to you. There are 40 separate planning standards with associated RMP policies and objectives that apply to the referenced Block and Lots. However, please be advised that any reports generated from this online review application do not constitute a formal Consistency Determination from the Highlands Council. A formal Consistency Determination is only performed by the Highlands Council through the Project Review process.

In summary, the Consistency Report indicates that development of the site is constrained in a number of ways, relating to the Highlands Zone and Sub-Zone in which it is located, the characteristics of the land and

its geology, and the Highlands Resources and Resource Areas that it would encroach upon. The site falls within the RMP-designated areas listed below, each briefly described and supplemented with the RMP provisions of greatest import.

- A. Conservation Zone Consists of areas with significant agricultural lands interspersed with associated woodlands and environmental features that should be preserved when possible. The Conservation Zone is intended primarily for agricultural use and development, including ancillary and supporting uses and activities. Non-agricultural development activities will be limited in area and intensity due to infrastructure constraints and resource protection goals. Where non-agricultural development does occur it must be compatible with agricultural uses.
- B. Conservation Zone Environmentally Constrained Sub-Zone Consists of lands containing significant environmental features within the Conservation Zone that should be preserved and protected from non-agricultural development. Development activities will be limited and subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands.
  - New or Extended Utility Infrastructure in the Protection Zone, Conservation Zone, and Environmentally-Constrained Sub-Zone 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. Such approval would require a residential cluster development or a Highlands Act waiver, criteria for which cover only three possible scenarios: imminent danger to public health or safety, property rights takings, and Highlands Redevelopment Area designations. None of these options apply in this case.
- C. Carbonate Rock Areas Consist of those portions of the municipality 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. The entirety of the proposed site falls within the Carbonate Rock Area.
  - ➤ Prohibited Uses The following principal or accessory uses and structures related or devoted to such uses, are expressly prohibited from any portion of the Carbonate Rock Area or from any lands identified as draining into a designated Carbonate Rock Area:
    - Solid waste landfills;
    - Hazardous waste storage and disposal facilities;
    - Hazardous materials storage and handling facilities; and
    - Underground storage tanks.
- D. **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.
  - ▶ **Prohibited Uses** 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, is expressly prohibited from any portion of the Prime Ground Water Recharge Area.
- E. 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:

- 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.
- 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.
- 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.

#### Prohibited Uses –

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, is expressly prohibited from any portion of a Tier 1 Wellhead Protection Area.

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, shall be expressly prohibited from any portion of a Tier 2 Wellhead Protection Area.

- F. **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.
- G. Agricultural Resource Area Consists of those areas of the most concentrated and contiguous agricultural uses as determined based on the prevalence of active farms, contiguous farming units of 250 acres or more, and the presence of Important Farmland Soils.
  - ➤ <u>Highlands Agricultural Priority Areas</u> Are those lands determined by the Highlands Council, in coordination with the NJDA and SADC, based on an agricultural resource assessment, to have the highest agricultural resource values. These lands (within which the site is fully located) have the highest priority for farmland preservation.
  - ▶ Prime Farmland Soils Soils having the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops. It has the soil quality, growing season, and moisture supply needed to produce high yields of crops when treated and managed according to acceptable farming methods. Prime farmland soils 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.

As a result of the foregoing constraints and the potential disturbance and impact on the environment and agricultural activities in the area, it is unlikely that the Highlands Council would find construction of a major project such as a nuclear power plant consistent with the protective provisions of the RMP as applied. It would appear that securing the needed approvals for such a project would be highly unlikely. The only option would be to request a modification to the RMP itself. The results of such a request cannot be predicted in advance of an application.

I am hopeful that this information is helpful to the Nuclear Regulatory Commission in understanding the issues involved in performing an alternative site analysis for the proposed Bell Bend nuclear power plant's Environmental Impact Statement. Please do not hesitate to contact Kim Ball Kaiser, Staff Attorney at

kim.kaiser@highlands.state.nj.us or (908)-879-6737 ext. 128, should you have additional questions or require further assistance in this regard.

Sincerely yours,

Daniel J. Van Abs, PhD, PP/AICP

Acting Executive Director

Enclosure: CD-ROM

# Regional Master Plan Consistency Report

5/8/2012

Prepared by State of New Jersey Highlands Water Protection and Planning Council 100 North Road (Route 513), Chester, NJ 07930 Telephone: (908) 879-6737 Fax: (908) 879-4205



Please consider the environment before printing this report

#### Disclaimer

Please be advised that any reports generated from the online Consistency Review Application do not constitute a formal Consistency Determination from the Highlands Council. The information contained therein is provided solely for informational purposes and is not to be construed as providing advice, recommendations, endorsements, representations or warranties of any kind whatsoever.

# White Township, NJ - Block 7, Lots 3, 4, 5, 11, 16

33 CR 519, White Township, Warren County, Block 7, Lot 4



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Agricultural Resource Area:

An intensity indicator that reflects areas in the Region with a prevalence of active farms and is based upon Contiguous Farms >250 acres, Important Agricultural Soils - Undeveloped, and Preserved Farms data layers.

**Objective 113:** To require conforming municipalities and counties to require conservation or land stewardship easements, enforceable by the Highlands Council and at least one of the following: the appropriate municipality, the County Agriculture Development Board, the SADC, Green Acres, or a non-profit land trust organized pursuant to 501 (c)(3) of the federal tax code and engaged in the protection of land for the purpose of providing long-term stewardship of important resources as a condition of development approval for lands within parcels proposed for development that are identified for preservation on a proposed site plan or subdivision plot.

**Objective 2J4b:** Clustered development served by public water supply within the Protection Zone, the Conservation Zone, and the Environmentally-Constrained Sub-zones of the Planning Area shall be approved only if the following conditions are met: 1. The development impacts are otherwise consistent with the requirements of the RMP, including provisions for mandatory clustering in Agricultural Resource Areas pursuant to Policy 3A5; 2. Extension of an existing public water system will occur only where the cluster development is within or immediately adjacent to an Existing Area Served with available capacity; 3. Creation of a new public water system will occur only where such development is not within or immediately adjacent to an Existing Area Served with available capacity; 4. The clustered development preserves at least 80% of the cluster project area in perpetuity for environmental protection or agricultural purposes. To the maximum extent feasible the developed portion (i.e., not including wetlands, Highlands Open Waters buffers, and recreational lands) occupies no more than 10% of the cluster project area if served by a public or community on-site wastewater system; and 5. Where the preserved land in the cluster project area is dedicated to agricultural purposes, the cluster development ordinance and an Agriculture Retention/Farmland Preservation Plan supports continued agricultural viability of the agricultural land and requires the implementation of best management practices, including development and implementation of a Farm Conservation Plan that addresses the protection of water and soil resources prepared by the USDA Natural Resources Conservation Service (NRCS), Technical Service Provider (TSP), appropriate agent or NJDA staff, and approved by the local Soil Conservation District (SCD).

**Objective 2J4d:** All development within the Highlands Region, in areas that are not served by public water systems, shall be at a density that can be supported by on-site wells. Where cluster development in the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area will be served by on-site wells, and the undeveloped land is preserved for agricultural purposes in perpetuity, the cluster development in combination with the Agriculture Retention/Farmland Preservation Plan required by Objective 2J4b shall provide for best management practices that protect the on-site wells from contamination resulting from agricultural practices and shall include provisions to minimize or reduce net pollutant loadings from the total cluster project area including the preserved agricultural lands.

**Objective 2K3d:** Clustered development served by a public wastewater collection and treatment system or community on-site treatment facility within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area shall be approved only if the following conditions are met: 1. The development impacts are otherwise consistent with the requirements of the RMP, including provisions for mandatory clustering in Agricultural Resource Areas; 2. Extension of an existing public wastewater collection and treatment system will occur only where the cluster development is within or immediately adjacent to an Existing Area Served with available capacity; 3. Creation of a community on-site treatment facility will occur only where such development is not within or immediately adjacent to an Existing Area Served with available capacity, where the proposed system is designed, permitted, and constructed at a capacity limited to the needs of the clustered development, and where the system does not create the potential for future expansion into areas that are not the subject of cluster developments immediately adjacent to the initial cluster served; 4. The cluster development preserves at least 80% of the cluster project area in perpetuity for environmental protection or agriculture purposes. To the maximum extent feasible the developed portion of the project area (e.g., not including wetlands, Highlands Open Waters buffers, and recreational lands) occupies no more than 10% of the cluster project area if served by a public or community on-site wastewater system; and 5. Where the preserved land in the cluster project area is dedicated to agricultural purposes, the cluster development ordinance and an Agriculture Retention/Farmland Preservation Plan supports continued agricultural viability of the agricultural land and requires the implementation of best management practices, including development and implementation of a Farm Conservation Plan that addresses the protection of water and soil resources prepared by the USDA Natural Resources Conservation Service (NRCS), Technical Service Provider (TSP), appropriate agent or NJDA staff, and approved by the local Soil Conservation District (SCD).

**Objective 2K3f:** All development within the Highlands Region, in areas which are not served by public wastewater collection and treatment system or community on-site treatment facility, shall be at a density that can be supported by septic systems under Goal 2L. Where cluster development in the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-Zones of the Planning Area shall be served by on-site wells, and the undeveloped land is preserved for agricultural purposes in perpetuity, the cluster development and the Agriculture Retention/Farmland Preservation Plan required by Objective 2K3d in combination shall include provisions for best management practices that protect the on-site wells from contamination resulting from agricultural practices and shall include provisions to minimize or reduce net pollutant loadings from the total cluster project area including the preserved agricultural lands.

**Objective 2L2e:** New residential development using septic systems where clustering or conservation design techniques are employed shall have a gross density (for all parcels involved in the development proposal) based on the nitrate dilution target appropriate for the Land Use Capability Zone, but with the density for the developed portion of the site based on a nitrate dilution target not to exceed 10 mg/L or any more stringent requirement as required by N.J.A.C. 7:15.

**Policy 3A5:** Where it is not feasible to preserve agricultural lands within the ARA by such methods as fee simple acquisition, easement acquisition, or a TDR Program, require mandatory clustering through Municipal Plan Conformance, local development review and Highlands Project Review for residential development in an ARA. Cluster development within the Planning Area that incorporates public or community on-site wastewater utilities shall meet the requirements of Policy 2J4 with Objectives 2J4a through 2J4d, and Policy 2K3 with Objectives 2K3a through 2K3e, and within the Preservation Area shall meet the requirements of Policy 2I1 and Objectives 2I1a and 2I1b, and where reliant on septic systems shall meet the requirements of Objective 6I1a.

**Objective 3A5a:** Implement regulations requiring that cluster or conservation design development proposed within an Agricultural Resource Area support the preservation of farmland, avoid conflicts with agriculture, maintain and enhance the sustainability and continued viability of the agricultural industry, protect Important

Farmland Soils, and meet resource management and protection requirements of the RMP.

**Objective 3A5b:** Implement regulations requiring that all cluster or conservation design development proposed in an Agricultural Resource Area be buffered appropriately with existing natural resources, such as hedgerows or trees, or with new buffers to avoid conflicts between non-agricultural development and agricultural activities, and to protect existing agricultural uses and sensitive environmental resources.

**Objective 3A5c:** Implement regulations requiring that all land preserved in perpetuity for environmental protection or agricultural purposes as a result of clustering be subject to a conservation easement enforceable by the Highlands Council and at least one of the following: the appropriate municipality, for agricultural purposes the County Agriculture Development Board or the SADC and for environmental purposes Green Acres or a qualified land trust non-profit organization.

**Objective 3A5d:** Where the preserved land in the cluster project area is dedicated to agricultural purposes support continued agricultural viability of the agricultural land, encourage that the original or new farmstead remain attached to the preserved land wherever feasible, and require the implementation of best management practices through the cluster development ordinance and an Agriculture Retention/Farmland Preservation Plan, including development and implementation of a Farm Conservation Plan that addresses the protection of water and soil resources prepared by the USDA NRCS, Technical Service Provider (TSP), appropriate agent or NJDA staff, and approved by the local Soil Conservation District (SCD).

**Policy 3A6:** To permit through local development review and Highlands Project Review limited development, including family and farm labor housing in Agricultural Resource Areas which are necessary to support the viability of the agricultural operation, in coordination with the NJDA and the SADC, and subject to compliance with the resource management and protection requirements of the RMP.

**Objective 3A6a:** Implement regulations allowing for construction of ancillary structures and family and farm labor housing that is necessary to support the viability of the agricultural operation, upon a demonstration that the proposed development is consistent with the resource management and protection requirements of the RMP.

**Objective 6C1a:** Centers in the Protection Zone, potentially including clustered development, shall be at densities appropriate to the Zone, the community character, the State Development and Redevelopment Plan, and the use of septic systems or community wastewater systems.

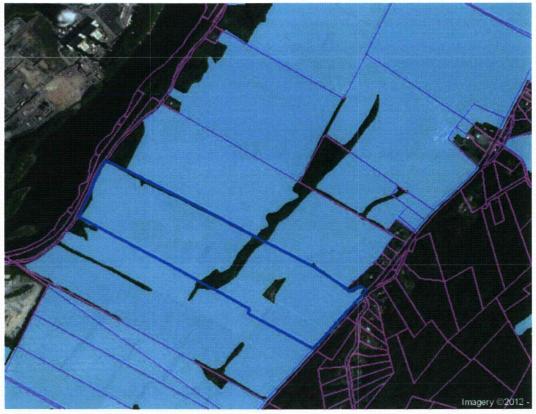
**Objective 6D3b:** Centers in the Conservation Zone, potentially including clustered development, shall be at densities appropriate to the Zone, the community character, the State Development and Redevelopment Plan, and the use of septic systems or community wastewater systems.

**Policy 6H1:** To protect, restore, or enhance sensitive environmental resources of the Highlands Region, including but not limited to Forests, Critical Habitat, Highlands Open Waters and their buffers, Riparian Areas, Steep Slopes, Prime Ground Water Recharge Areas, Wellhead Protection Areas, and Agricultural Resource Areas.

**Objective 6H1d:** Cluster and conservation design development plans and regulations shall consider existing community character, incorporate smart growth design principles, and require Low Impact Development including but not limited to: locating development adjacent to existing infrastructure such as water, wastewater, transportation, and public facilities to limit the degree of new impervious surface, and permitting smaller residential lots in order to incorporate community open space and existing natural resources into the design.

**Policy 6H3:** To require conforming municipalities and counties to include site development programs, such as clustering, to preserve land in perpetuity for environmental protection or agricultural purposes.





#### Agricultural Uses:

An intensity indicator that represents the extent of lands that are currently in agricultural use based upon NJDEP 2002 Land Use Land Cover data, with 10 acres as a minimum threshold. Categories include cropland and pastureland, orchards, vineyards, nurseries and horticultural areas, confined feeding operations, and other agriculture.

**Pollcy 3D2:** To require any agricultural or horticultural development in the Preservation Area and the Planning Area which involves new agricultural impervious cover, since enactment of the Highlands Act, to the total land area of a Farm Management Unit (either individually or cumulatively) of greater than 3% but less than 9%, to develop and implement a Farm Conservation Plan prepared by the USDA NRCS, TSP, appropriate agent, or NJDA staff, and approved by the local SCD.

**Pollcy 3D3:** To require any agricultural or horticultural development in the Preservation Area and the Planning Area which involves new agricultural impervious cover, since enactment of the Highlands Act, to the total land area of a Farm Management Unit (either individually or cumulatively) of 9% or greater to develop and implement a Resource Management System Plan prepared by the USDA NRCS, TSP, appropriate agent, or NJDA staff, and approved by the local SCD.

**Objective 2B4d:** The highest priority for agricultural water uses in the Conservation Zone shall be those Preservation Area uses that promote agricultural and horticultural uses and opportunities that are compatible with protection of the Highlands environment, and those Planning Area uses that promote the continuation and expansion of agricultural, horticultural, recreational, and cultural uses and opportunities. Compatible agricultural and horticultural uses shall minimize consumptive water uses through efficiency measures.





#### Forest Resource Area: S

The Forest Resource Area data layer is an intensity indicator that captures high ecological value forest areas including those forested lands that exhibit the least fragmentation, which are vital for the maintenance of ecological processes.

**Policy 1A5:** To prohibit through local development review and Highlands Project Review forest clear-cutting within the Forest Resource Area except in accordance with a Forest Management Plan approved by the State Forester.

**Policy 1B3:** To limit through local development review and Highlands Project Review deforestation in the Forest Resource Area and forested lands within High Integrity Forest Subwatersheds within the Existing Community Zone to maximum extent practicable.

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#### Carbonate Rock:

The Carbonate Rock Area is that area of the Region that is underlain by carbonate rocks. The dissolution of carbonate rock can cause surface depressions and the development of such features as sinkholes, sinking streams, enlarged bedrock fractures, caves, and underground streams. These features may direct surface water runoff into aquifers with little or no attenuation of any transported contaminants. Further, they present a potential geologic hazard as they may undermine such infrastructure as stormwater basins, roads, sewer lines, septic systems, and natural gas lines.

**Policy 1K2:** To identify and delineate through local development review and Highlands Project Review land areas that drain surface water into the Carbonate Rock Area, as changes in the quantity, quality and rate of discharge of surface water runoff from upslope lands can impair ground water resources in the Carbonate Rock Area.

**Policy 1K4:** To ensure through Plan Conformance that municipalities in, or within subwatersheds draining directly to, the Carbonate Rock Area protect public health and safety and the quality of ground waters from inappropriate land uses and pollutant discharges.

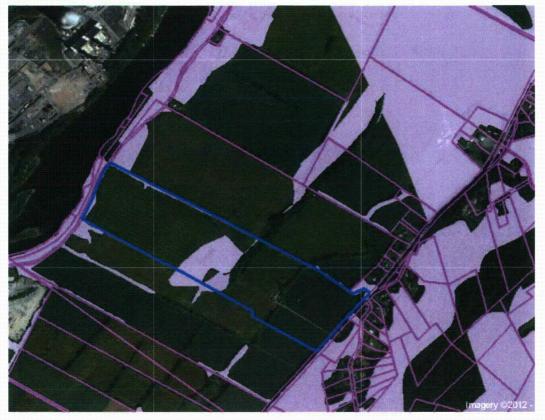
**Objective 1K4b:** Applications for site plan or subdivision approval will include a multi-phased geotechnical site investigation (e.g., test borings, test pits) to locate any potential karst features and potential hazards to public health and safety, structures and ground water quality.

**Objective 1K4c:** Local development reviews and Highlands Project Reviews and requirements shall ensure that all potential hazards to public health and safety, structures and ground water quality, including but not limited to concentrated surface water flows that dissolve carbonate rock, are fully addressed and mitigated in the construction plans and subsequent approval process, with the maximum emphasis on nonstructural measures, including, but not limited to, avoidance of modifications to the karst features.

**Objective 1K4d:** Public works projects, including but not limited to water supply, sewerage, stormwater and transportation facilities, shall be constructed and maintained such that the potential for damage from karst features and the contamination of ground water are avoided.

**Objective 1K4e:** Highlands Project Reviews and requirements and local development reviews (where applicable) shall prohibit new land uses and facilities that constitute unacceptable risks of discharge due to karst topography where karst features have been identified, including but not limited to: Underground storage tanks; Solid waste landfills; Hazardous waste storage and disposal; and Hazardous materials storage and handling.

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Prime Groundwater Recharge Area:

The layer displays the mapping of Prime Ground Water Recharge Areas. The Regional Master Plan defines Prime Ground Water Recharge Areas as those lands within a HUC14 subwatershed that most efficiently provide 40% of total drought recharge volume for that HUC14 subwatershed, using a GSR-32 analysis based upon land cover and the 1964-1966 drought of record precipitation.

Policy 2D3: To protect, enhance, and restore the quantity and quality of Prime Ground Water Recharge Areas.

**Objective 2D3c:** Implement master plans and development review ordinances through Plan Conformance that protect Prime Ground Water Recharge Areas and minimize the potential for disruption of recharge in such areas by development.

**Objective 2D3g:** Require through Plan Conformance and local health ordinances, that existing land uses that have a significant potential to result in major discharges of pollutants to ground water or to the land surface (including but not limited to non-sanitary wastewater effluent and any major sources of potential discharges such as spills and leaks), such that they may degrade ground water quality within a Prime Ground Water Recharge Area, shall incorporate ongoing management of toxic chemical sources and prohibition of unregulated discharges, so that the potential for ground water contamination is minimized and the opportunity for discharge discovery and control is maximized.

**Policy 2D4:** To apply standards through Plan Conformance, local development review and Highlands Project Review to protect, restore and enhance the functionality and the water resource value of Prime Ground Water Recharge Areas by restricting development and uses of land within a Prime Ground Water Recharge Area that reduce natural ground water recharge volumes or may directly or indirectly contribute to or result in water quality degradation.

**Objective 2D4a:** Development shall not occur in Prime Ground Water Recharge Areas unless necessary to avoid Critical Habitat, Highlands Open Waters Buffers and Moderately and Severely Constrained Steep Slopes.

**Objective 2D4b:** Any development activity approved to occur in a Prime Ground Water Recharge Area shall

provide an equivalent of 125% of pre-construction recharge volumes for the affected Prime Ground Water Recharge Area of the site within the following areas, in order of priority: (1) the same development site where feasible; (2) the same HUC14 subwatershed, or (3) an interrelated HUC14 subwatershed as approved by the Highlands Council where no feasible option exists in the same HUC14 subwatershed. This requirement shall apply to all portions of the Prime Ground Water Recharge Area where the recharge is disrupted through impervious surfaces, routing of stormwater runoff and recharge from natural flow paths, and other similar changes.

**Objective 2D4c:** Require through Plan Conformance, local development review and Highlands Project Review that the disruption of Prime Ground Water Recharge Area shall be minimized through the implementation of Low Impact Development Best Management Practices meeting the requirements of Objective 2D3a.

**Objective 2D4d:** Require through Plan Conformance, local development review and Highlands Project Review that the disruption of Prime Ground Water Recharge Area, after conformance with Objectives 2D4a, 2D4b and 2D4c is achieved, shall be limited to no greater than 15% of the Prime Ground Water Recharge Area on the site and shall be preferentially be sited on that portion of the Prime Ground Water Recharge Area that has the lowest ground water recharge rates and the lowest potential for aquifer recharge.

**Objective 2D4e:** Prohibit through Plan Conformance, local development review and Highlands Project Review the expansion or creation of public water supply systems or public wastewater collection and treatment systems or community-based on-site wastewater facilities into a Prime Ground Water Recharge Area within the Protection or Conservation Zone within the Planning Area except as provided for in Policy 2J4 with Objectives 2J4a through 2J4d, and Policy 2K3 with Objectives 2K3a through 2K3e, and within the Preservation Area except as provided for in Policy 2I1 and Objectives 2I1a and 2I1b.

**Objective 2D4f:** Prohibit through Plan Conformance, local development review and Highlands Project Review new land uses, including those identified through Objective 2D3d, that have a significant potential to result in the discharge of persistent organic chemicals sources (including but not limited to existing discharges of industrial or other non-sanitary wastewater effluent) to ground water or to the land surface within a Prime Ground Water Recharge Area, such that they may degrade or contribute to the degradation of ground water quality.

**Objective 2D4g:** Require conformance with applicable components of regional stormwater management plans, where applicable, as a mandatory requirement for any site plan application.

**Objective 2D4h:** Achieve a net improvement in ground water recharge volume and maintenance of water quality as required through compliance with and implementation of any related provisions of an adopted regional stormwater plan.

**Objective 2D4i:** Achieve a net improvement in ground water volume and maintenance of water quality through redevelopment, enhanced infiltration, pretreatment or other means where feasible.

**Objective 211b:** The expansion or creation of public water supply systems, public wastewater collection and treatment systems and community on-site treatment facilities in the Preservation Area as approved through a HPAA with waiver pursuant to N.J.A.C. 7:38 and Policy 7G1 shall maximize the protection of sensitive environmental resources including avoidance of Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas, and Critical Habitat.

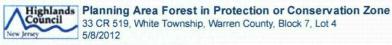
**Objective 2J4a:** Prohibit new, expanded or extended public water systems within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The extension or creation of systems shall follow the requirements in Objective 2J4b (parts 2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from contaminated domestic and other on-site water supplies that is of sufficient scale to

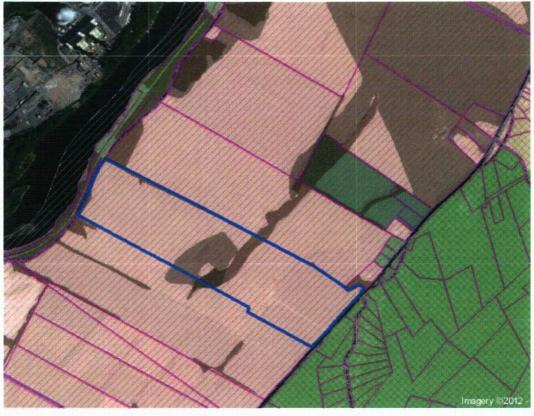
justify a public water supply and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. Such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective 2J4b.

Objective 2K3c: Prohibit new, expanded or extended public wastewater collection and treatment systems and community on-site treatment facilities within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The choice of extension or creation of systems shall follow the requirements in Objective 2K3d (2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from a pattern of failing septic systems (where the failing systems cannot reasonably be addressed through rehabilitation or replacement) or highly concentrated septic systems, where the threat is of sufficient scale to justify a public wastewater collection and treatment system or community on-site treatment facility and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. To address other issues of public health and safety, such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective

**Policy 6H1:** To protect, restore, or enhance sensitive environmental resources of the Highlands Region, including but not limited to Forests, Critical Habitat, Highlands Open Waters and their buffers, Riparian Areas, Steep Slopes, Prime Ground Water Recharge Areas, Wellhead Protection Areas, and Agricultural Resource Areas.

**Policy 6N4:** To require through Plan Conformance that municipalities and counties adopt LID best management practices where disturbance of Highlands resources is proposed, including but not limited to Steep Slopes, forest resources, Critical Habitat, Highlands Open Waters and Riparian Areas, and Prime Ground Water Recharge Areas.







Planning Area Forest in Protection or Conservation Zone data layer represents all forested lands in the Protection Zone or Conservation Zone in the legislatively delineated Planning Area. Regional Master Plan protection policies limit development of these forests to low impact residential in an effort to maintain valuable forested lands within these two Zones in the Planning Area.

**Policy 1B2:** To limit through local development review and Highlands Project Review human development of forests to low impact residential development in the Protection Zone and the Conservation Zone in the Planning Area.



Forest Outside of Forest Resource Area:

Forest Resources represents the Total Forest Area data layer that was extracted from the NJDEP 2002 draft Land Use Land Cover data. This data layer illustrates all upland and wetland forest and scrub/shrub categories (excluding old field) and represents all forested lands within the Region. The Regional Master Plan includes policies that limit clearing of trees within Forest Resources and that seek to protect overall forest resources integrity.

**Objective 1B3a:** Implementation through Plan Conformance of regulations, which limit the clearing of trees in conjunction with human development to circumstances where the clearing will not diminish the integrity of forest resources.

**Policy 1B5:** To ensure that forest resources are protected on a site specific basis during local development review and Highlands Project Review.

**Objective 1B5a:** Applications for local development review and Highlands Project Review require identification of any forest area on and adjacent to a site in accordance with the Highlands Council's Method for Identifying Upland Forest Areas in the Highlands Region.

**Policy 1B7:** To prohibit clear-cutting of forest lands except pursuant to an approved Forest Management Plan approved by the State Forester.

**Pollcy 1G3:** To require that conforming municipalities adopt a tree clearing ordinance consistent with an approved community forestry plan under the New Jersey Forest Service Community Forestry Program as part of the municipal master plan and local development regulations.

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Pollcy 6N4: To require through Plan Conformance that municipalities and counties adopt LID best management

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practices where disturbance of Highlands resources is proposed, including but not limited to Steep Slopes, forest resources, Critical Habitat, Highlands Open Waters and Riparian Areas, and Prime Ground Water Recharge Areas.

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Open Water Protection Area:

Highlands Open Waters are defined by the Highlands Act as all springs, streams including intermittent streams, wetlands, and bodies of surface water, whether natural or artificial. The vegetated corridors adjacent to Highlands Open Waters are effective and important tools to protect water quality and aquatic habitat. Protection buffers safeguard Highlands Open Waters from the impacts of adjacent land use practices. The Regional Master Plan includes a protection buffer of 300 feet from the edge of the discernable bank of a Highlands Open Waters feature, or from the centerline where no discernable bank exists.

Pollcy 1D4: Highlands Open Waters shall include a protection buffer of 300 feet from the edge of the discernable bank of the Highlands Open Waters feature, or from the centerline where no discernable bank exists. With respect to wetlands and other Highlands Open Waters features (e.g., seeps, springs, etc.), the feature shall include a protection buffer of 300 feet from the delineated Letter of Interpretation (LOI) line issued by the NJDEP for wetlands, or from a field-delineated boundary for other features. In areas where existing development or land uses within the protection buffers have reduced or impaired the functional values of the buffers, the Council will seek opportunities to restore the buffer and its functions. Any proposed disturbance shall, through local development review and Highlands Project Review, comply with Highlands Open Waters buffer standards. The protection buffer width for Category 2 streams in the Planning Area may be modified through a Stream Corridor Protection/Restoration Plan, as specified in Objective 1D4i. In approved Redevelopment Areas, the Council may, at its discretion, modify the required buffer, upon a showing of no alternatives, no impact to the functional value of the buffer, and provision of alternative approaches to enhancing or protecting Highlands Open Waters and resources of the buffer area.

**Objective 1D4a:** Require that all applications for approval through local development review and Highlands Project Review include the identification and mapping of Highlands Open Waters.

**Objective 1D4c:** Require that proposed development within all Highlands Open Waters buffers (Preservation and Planning Areas) conforms through local development review and Highlands Project Review with the buffer requirements of N.J.A.C. 7:8 (Stormwater Management Rules), N.J.A.C. 7:13 (Flood Hazard Area Rules), and N.J.A.C. 7:7 (Freshwater Wetland Rules), and with any applicable requirements of a Regional Stormwater Plan

adopted pursuant to N.J.A.C. 7:8 (Stormwater Management Rules).

Objective 1D4i: Develop through Plan Conformance and implement stream corridor or subwatershed-based Stream Corridor Protection/Restoration Plans which shall include Steps 1, 2, and 3, and may include Steps 4 and 5: 1. Identify areas where existing development, land disturbances, or land uses are within Highlands Open Waters buffers have removed or substantially impaired natural vegetation communities, and have significantly reduced or impaired the functional values of Highlands Open Waters buffers. For purposes of this Objective when considering land for conversion to non-agricultural land uses, historic or current agricultural land uses shall not be considered "land improvements," "development," "land disturbances," or "land uses"; 2. Identify and require opportunities for restoration of areas identified in Step 1 as part of mitigation requirements under a Highlands Act waiver or Objectives 1D4e and 1D4f, and public or nongovernmental restoration/stabilization projects; 3. Identify the extent of stream corridor features that are critical to supporting the functions of a healthy Highlands Open Waters buffer and that extend beyond the buffers required by Objectives 1D4b and 1D4c. The 300 foot buffer in these areas may be expanded to be most protective of these features which may include, but are not limited to, Critical Habitat, pollutant source areas identified through scientific techniques, and steep slopes; 4. Where Highlands Open Waters buffers include areas identified in Step 1, regarding Category 2 surface waters in the Planning Area only, the Stream Corridor Protection/Restoration Plan may identify where, based on scientific analysis of site-specific conditions (e.g., topography, vegetation cover type, habitat, soil type, upstream land uses and pollution inputs, width of floodplain, rate and volume of run-off), a buffer of less than the full 300 feet (but including the undisturbed buffer area at a minimum) is sufficient to maintain or improve the protection of Highlands Open Waters and Riparian Areas. The plan must identify alternative buffers that provide functional buffer values at least equivalent to existing conditions and are no less than 150 feet or no less than the extent allowed in State or municipal regulation (including Objectives 1D4b and 1D4c), whichever is greater. Further, the plan shall include a functional value assessment to ensure that there is no net loss in the overall functional value of the subwatershed's stream buffers. Buffers established through this process shall be determined based on site conditions rather than fixed distances, reflecting findings of the scientific analysis, and shall be used in the site design and development review process regarding determinations of restoration, continued use, or increased use of the disturbed buffer area. Buffer averaging for the purpose of accommodating development proposals is deemed not to meet the requirements of this provision; and 5. Where a proposed Highlands Redevelopment Area would not meet, in full, Objectives 1D4b through 1D4h but affects an undisturbed buffer area determined to not be necessary for the protection of the functional values for Highlands Open Waters buffer (as determined through scientific analysis of site-specific conditions), modification of the undisturbed buffer may be allowed to no less than the extent allowed in State or municipal regulation. However the Council shall first determine that there is no alternative to the proposed reduction of the buffer, and require a showing of no impact to the functional values of the buffer and provision of alternative approaches to enhancing or protecting the Highlands Open Waters and resources of the buffer area. Restoration or enhancement of buffer functional values shall be provided on-site or within the same stream reach to achieve a net improvement of existing buffer functional values.

**Objective 1D4j:** The Highlands Council may require on a case-by-case basis, through Highlands Project Review, an expansion of the 300 foot buffer to protect the habitat of a water or wetlands-dependant rare, threatened or endangered species, to the minimum expansion necessary to achieve protection of that species.

**Objective 1D5b:** Limit disturbance of existing natural vegetation or increases in impervious area within High and Moderate Integrity Riparian Areas in any Land Use Capability Zone to the minimum alteration feasible in areas beyond Highlands Open Waters buffer requirements; protect the water quality of adjacent Highlands Open Waters; and maintain or restore habitat value of the Riparian Area.

**Objective 2D4a:** Development shall not occur in Prime Ground Water Recharge Areas unless necessary to avoid Critical Habitat, Highlands Open Waters Buffers and Moderately and Severely Constrained Steep Slopes.

**Objective 211b:** The expansion or creation of public water supply systems, public wastewater collection and treatment systems and community on-site treatment facilities in the Preservation Area as approved through a HPAA with waiver pursuant to N.J.A.C. 7:38 and Policy 7G1 shall maximize the protection of sensitive environmental resources including avoidance of Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas, and Critical Habitat.

Objective 2J4a: Prohibit new, expanded or extended public water systems within the Protection Zone, the

Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The extension or creation of systems shall follow the requirements in Objective 2J4b (parts 2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from contaminated domestic and other on-site water supplies that is of sufficient scale to justify a public water supply and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. Such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective 2J4b.

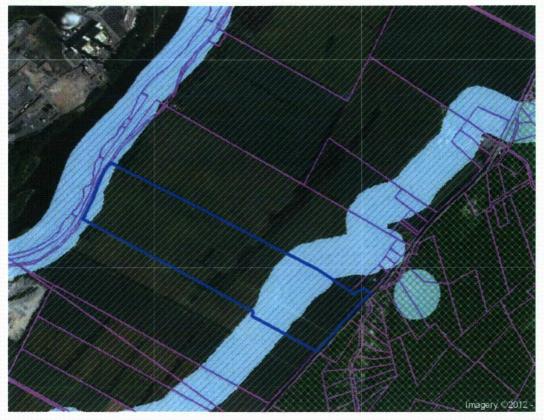
**Objective 2K3c:** Prohibit new, expanded or extended public wastewater collection and treatment systems and community on-site treatment facilities within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The choice of extension or creation of systems shall follow the requirements in Objective 2K3d (2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from a pattern of failing septic systems (where the failing systems cannot reasonably be addressed through rehabilitation or replacement) or highly concentrated septic systems, where the threat is of sufficient scale to justify a public wastewater collection and treatment system or community on-site treatment facility and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. To address other issues of public health and safety, such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective 2K3d.

**Policy 6H1:** To protect, restore, or enhance sensitive environmental resources of the Highlands Region, including but not limited to Forests, Critical Habitat, Highlands Open Waters and their buffers, Riparian Areas, Steep Slopes, Prime Ground Water Recharge Areas, Wellhead Protection Areas, and Agricultural Resource Areas.

**Policy 6N4:** To require through Plan Conformance that municipalities and counties adopt LID best management practices where disturbance of Highlands resources is proposed, including but not limited to Steep Slopes, forest resources, Critical Habitat, Highlands Open Waters and Riparian Areas, and Prime Ground Water Recharge Areas.



Highlands Highlands Open Waters Buffers in Planning Area 33 CR 519, White Township, Warren County, Block 7, Lot 4 5/8/2012



Open Water Protection Area: Planning Area / Preservation Area: Planning Area / Preservation Area

Includes all Highlands Open Waters protection buffers within the Planning Area

**Objective 1D4d:** Structures or other land improvements existing within a Highlands Open Waters buffer of the Planning Area on August 10, 2004 may remain, provided that the area of disturbance shall not be increased unless approved through local development review or Highlands Project Review in compliance with RMP policies and objectives. For purposes of this Objective when considering land for conversion to non-agricultural land uses, historic or current agricultural land uses shall not be considered "land improvements," "development," "land disturbances," or "land uses."



# Highlands Open Waters Protection Buffers in Conservation or Protection Zone in Planning Area

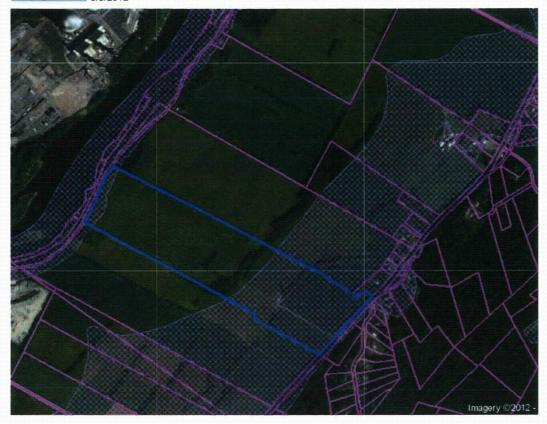
33 CR 519, White Township, Warren County, Block 7, Lot 4 5/8/2012





Includes all Highlands Open Waters protection buffers within the Protection and Conservation Zones of the Planning Area.

**Objective 1D4e:** In the Protection and Conservation Zones of the Planning Area, proposed disturbances of Highlands Open Waters buffers shall only occur in previously disturbed areas, unless a waiver is granted by the Highlands Council under Policy 7G2. For purposes of this Objective when considering land for conversion to non-agricultural land uses, historic or current agricultural land uses shall not be considered "land improvements," "development," "land disturbances," or "land uses." Such proposed disturbances must demonstrate full utilization of the following performance standards in the listed order, to demonstrate the necessity of an encroachment into Highlands Open Waters buffers: 1) avoid the disturbance of Highlands Open Waters buffers; 2) minimize impacts to Highlands Open Waters buffers; and 3) mitigate all adverse impacts to Highlands Open Waters buffers so that there is no net loss of the functional value of the buffer, in compliance with Objective 1D4h. Minimization and mitigation opportunities shall be considered only upon a clear and convincing demonstration by the applicant that the protection buffer cannot be avoided and in no case shall the remaining buffer be reduced to less than 150 feet from the edge of Highlands Open Waters, unless a waiver is granted by the Highlands Council under Policy 7G2 and the proposed disturbance complies with Objective 1D4c.



Riparian Corridor Integrity Score: 

■ HIGH ■ MODERATE ■ LOW

Riparian Areas are areas adjacent to, and hydrologically interconnected with, rivers and streams. They are areas that exhibit periodic inundation or saturation of soils, are subject to periodic flooding, and include wildlife corridors within 300 feet of a surface water feature. Riparian Areas serve as an interface between surface water bodies and terrestrial ecosystems and play a critical role in maintaining the quality and ecological integrity of Highlands Open Waters.

**Objective 1D5b:** Limit disturbance of existing natural vegetation or increases in impervious area within High and Moderate Integrity Riparian Areas in any Land Use Capability Zone to the minimum alteration feasible in areas beyond Highlands Open Waters buffer requirements; protect the water quality of adjacent Highlands Open Waters; and maintain or restore habitat value of the Riparian Area.

**Objective 1D5e:** Implement Low Impact Development Best Management Practices for any development activity proposed within a Riparian Area, which minimize both alterations of natural vegetation and increases in impervious area, in compliance with Policies 6N3 and 6N4 and provide for mitigation through restoration of impaired Riparian Areas in the same HUC14 subwatershed.

**Objective 1D5f:** Require that development within Riparian Areas conforms through local development review and Highlands Project Review to any applicable requirements of a Regional Stormwater Plan adopted pursuant to N.J.A.C. 7:8 (Stormwater Management Rules).

**Objective 1D5g:** Require identification and implementation of opportunities where the restoration and enhancement of previously impaired Riparian Areas are feasible and appropriate as mitigation to any allowable modification to Riparian Area requirements.

**Objective 211b:** The expansion or creation of public water supply systems, public wastewater collection and treatment systems and community on-site treatment facilities in the Preservation Area as approved through a HPAA with waiver pursuant to N.J.A.C. 7:38 and Policy 7G1 shall maximize the protection of sensitive environmental resources including avoidance of Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the

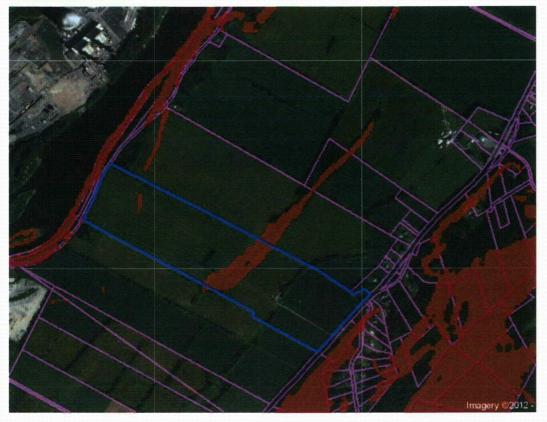
Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas, and Critical Habitat.

**Objective 2J4a:** Prohibit new, expanded or extended public water systems within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The extension or creation of systems shall follow the requirements in Objective 2J4b (parts 2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from contaminated domestic and other on-site water supplies that is of sufficient scale to justify a public water supply and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. Such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective 2J4b.

Objective 2K3c: Prohibit new, expanded or extended public wastewater collection and treatment systems and community on-site treatment facilities within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The choice of extension or creation of systems shall follow the requirements in Objective 2K3d (2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from a pattern of failing septic systems (where the failing systems cannot reasonably be addressed through rehabilitation or replacement) or highly concentrated septic systems, where the threat is of sufficient scale to justify a public wastewater collection and treatment system or community on-site treatment facility and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. To address other issues of public health and safety, such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective 2K3d.

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**Policy 6N4:** To require through Plan Conformance that municipalities and counties adopt LID best management practices where disturbance of Highlands resources is proposed, including but not limited to Steep Slopes, forest resources, Critical Habitat, Highlands Open Waters and Riparian Areas, and Prime Ground Water Recharge Areas.



Steep Slope Protection Area:

Slope is a measurement of the steepness of terrain and is defined as the vertical change in elevation over a given horizontal distance. Disturbance of areas containing steep slopes can trigger erosion and sedimentation, resulting in the loss of topsoil. It can also result in the disturbance of habitats, degradation of surface water quality, silting of wetlands, and alteration of drainage patterns. The Highlands Council examined areas of slope in the Highlands Region that exhibited one of the following grade classifications and these grades were established as Steep Slope Protection Areas: 1) grades of slopes of 20% or greater; 2) grades of slope between 15 - 20%; and 3) grades of slope between 10 - 15% that occur within the Riparian Area.

**Policy 1E6:** To require through local development review and Highlands Project Review that applications for development include topographic information identifying the location of any Steep Slope Protection Areas located on the parcel proposed for development.

**Policy 1E7:** To require through local development review and Highlands Project Review that applications for development involving parcels of land with slopes of 10% or greater include identification of forested lands, areas which are highly susceptible to erosion, depth to bedrock and Soil Capability Classes.

**Policy 1E10:** To require that conforming municipalities and counties implement the steep slope protection provisions of Policies 1E2 through 1E9 through master plans and development regulations.

**Objective 211b:** The expansion or creation of public water supply systems, public wastewater collection and treatment systems and community on-site treatment facilities in the Preservation Area as approved through a HPAA with waiver pursuant to N.J.A.C. 7:38 and Policy 7G1 shall maximize the protection of sensitive environmental resources including avoidance of Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas, and Critical Habitat.

**Objective 2J4a:** Prohibit new, expanded or extended public water systems within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For

approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The extension or creation of systems shall follow the requirements in Objective 2J4b (parts 2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from contaminated domestic and other on-site water supplies that is of sufficient scale to justify a public water supply and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. Such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective 2J4b.

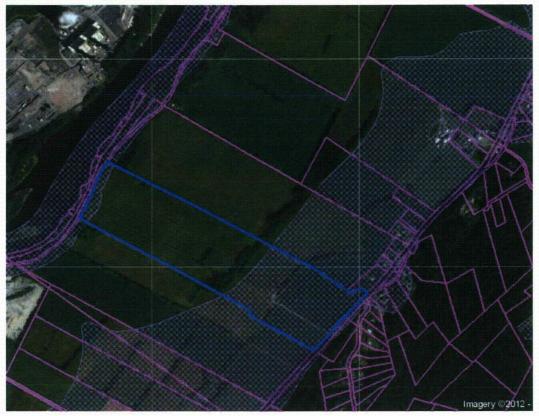
Objective 2K3c: Prohibit new, expanded or extended public wastewater collection and treatment systems and community on-site treatment facilities within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The choice of extension or creation of systems shall follow the requirements in Objective 2K3d (2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from a pattern of failing septic systems (where the failing systems cannot reasonably be addressed through rehabilitation or replacement) or highly concentrated septic systems, where the threat is of sufficient scale to justify a public wastewater collection and treatment system or community on-site treatment facility and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. To address other issues of public health and safety, such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective

**Pollcy 6H1:** To protect, restore, or enhance sensitive environmental resources of the Highlands Region, including but not limited to Forests, Critical Habitat, Highlands Open Waters and their buffers, Riparian Areas, Steep Slopes, Prime Ground Water Recharge Areas, Wellhead Protection Areas, and Agricultural Resource Areas.

**Policy 6N4:** To require through Plan Conformance that municipalities and counties adopt LID best management practices where disturbance of Highlands resources is proposed, including but not limited to Steep Slopes, forest resources, Critical Habitat, Highlands Open Waters and Riparian Areas, and Prime Ground Water Recharge Areas.

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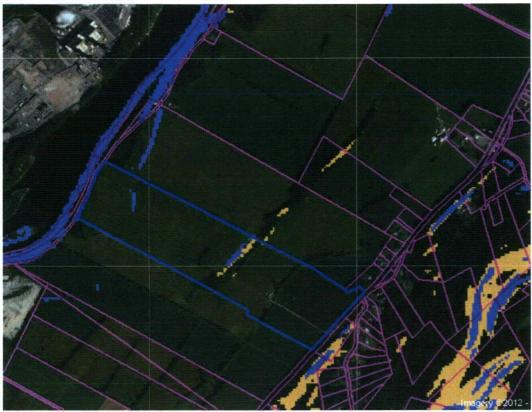
Riparian Corridor Integrity Score: 

■ HIGH ■ MODERATE ■ LOW

These areas include watersheds with Riparian Areas that contain a higher incidence of impervious area, agricultural uses and/or road crossings (as compared to High Score) and a reduced proportion of natural vegetation including high quality habitat for rare, threatened, and endangered water/wetland dependent species.

**Objective 1D5b:** Limit disturbance of existing natural vegetation or increases in impervious area within High and Moderate Integrity Riparian Areas in any Land Use Capability Zone to the minimum alteration feasible in areas beyond Highlands Open Waters buffer requirements; protect the water quality of adjacent Highlands Open Waters; and maintain or restore habitat value of the Riparian Area.





Moderately Constrained Slopes: Severely Constrained Slopes:

Severely Constrained Slopes are all lands with slopes of 20% or greater and lands within Riparian Areas with slopes of 10% or greater. Moderately Constrained Slopes are all non-Riparian Area lands having a slope of 15% to less than 20% which are forested.

**Policy 1E8:** To prohibit through local development review and Highlands Project Review land disturbance within areas which are Severely Constrained Slopes and Moderately Constrained Slopes, except for linear development in both the Preservation and Planning Areas that meets the requirements of N.J.A.C. 7:38-3.8(c)1-4.

**Objective 2D4a:** Development shall not occur in Prime Ground Water Recharge Areas unless necessary to avoid Critical Habitat, Highlands Open Waters Buffers and Moderately and Severely Constrained Steep Slopes.



Highlands Net Water Availability in Protection or Conservation Zone 33 CR 519, White Township, Warren County, Block 7, Lot 4

Identifies the portion of a HUC14 subwatershed within the Protection or Conservation Zone.

**Policy 2A2:**To ensure that increasing water demands do not exceed Net Water Availability or exacerbate existing deficits of subwatersheds. Net Water Availability is affected at a subwatershed level by location and extent of Land Use Capability Zone Map and its status as Current Deficit Area or Existing Constrained Area.

**Objective 2B4a:** Give highest priority for the use of non-agricultural Net Water Availability or Conditional Water Availability within Protection Zone and Conservation Zone subwatersheds, through a Water Use and Conservation Plan developed under Objective 2B8c, local development review, and Highlands Project review: 1. To address a documented existing or imminent threat to public health and safety from contaminated domestic and other on-site water supplies that is of sufficient scale to justify a public water supply and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. Such needs shall have highest priority for Net Water Availability; 2. To serve a designated Highlands Redevelopment Area; 3. To serve a cluster development that complies with Objective 2J4b; and 4. To serve affordable housing projects where at least 10% of the units are affordable.

**Objective 2B4c:**Establish and implement mandatory stormwater reuse for recreational and other non-agricultural irrigation, as well as other non-potable water purposes to minimize both the volume of stormwater discharges and water withdrawals for these purposes.



Net Water Availability is calculated for each HUC14 subwatershed by deducting consumptive and depletive water uses from Ground Water Availability. The Regional Master Plan incorporporates Net Water Availability as a capacity threshold on future water uses. Where Net Water Availability is positive, it is assumed there is water available beyond the existing demand. Where net water availability is negative, the subwatershed is in deficit and deemed to be a Current Deficit Area. In Current Deficit Areas where a Water Use and Conservation Management Plan has not yet been adopted, limited amounts of Conditional Water Availability are provided. The use of Net Water Availability or Conditional Water Availability is subject to Regional Master Plan policies.

**Policy 2A2:**To ensure that increasing water demands do not exceed Net Water Availability or exacerbate existing deficits of subwatersheds. Net Water Availability is affected at a subwatershed level by location and extent of Land Use Capability Zone Map and its status as Current Deficit Area or Existing Constrained Area.

**Objective 2B4c:** Establish and implement mandatory stormwater reuse for recreational and other non-agricultural irrigation, as well as other non-potable water purposes to minimize both the volume of stormwater discharges and water withdrawals for these purposes.

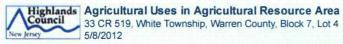
**Policy 2B7:** To ensure through Plan Conformance (including through a Water Use and Conservation Plan developed under Objective 2B8c), local development review, and Highlands Project Review that the use of Net Water Availability and Conditional Water Availability within each subwatershed supports development patterns that are in conformance with RMP policies and objectives.

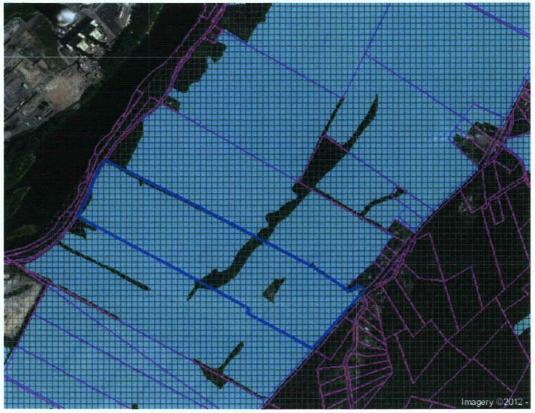
**Objective 2B8c:** Water Use and Conservation Management Plans shall be required through municipal Plan Conformance for all subwatersheds to meet the policies and objectives of Goal 2B, to ensure efficient use of water through water conservation and Low Impact Development Best Management Practices, and to avoid the creation of new deficits in Net Water Availability. Where developed for Current Deficit Areas, the plans shall include provisions to reduce or manage consumptive and depletive uses of ground and surface waters as necessary to reduce or

eliminate deficits in Net Water Availability, or to ensure continued stream flows to downstream Current Deficit Areas from Existing Constrained Areas, to the maximum extent practicable within each HUC14 subwatershed. Water Use and Conservation Management Plans shall demonstrate through a detailed implementation plan and schedule how and when the current deficit will be resolved in a subwatershed prior to approval for new water uses in the subwatersheds with the most severe deficits (i.e., in excess of 0.25 million gallons per day), and the plan shall be implemented prior to initiation of new water uses.

**Objective 2J2b:** Limit future water system demands to levels that will not create a Current Deficit Area where one does not currently exist.

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Agricultural Uses:■
Agricultural Resource Area:■

Includes all Agricultural Uses within the Agricultural Resource Area.

**Objective 211b:** The expansion or creation of public water supply systems, public wastewater collection and treatment systems and community on-site treatment facilities in the Preservation Area as approved through a HPAA with waiver pursuant to N.J.A.C. 7:38 and Policy 7G1 shall maximize the protection of sensitive environmental resources including avoidance of Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas, and Critical Habitat.

**Objective 2J4a:** Prohibit new, expanded or extended public water systems within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The extension or creation of systems shall follow the requirements in Objective 2J4b (parts 2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from contaminated domestic and other on-site water supplies that is of sufficient scale to justify a public water supply and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. Such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective 2J4b.

Objective 2K3c: Prohibit new, expanded or extended public wastewater collection and treatment systems and community on-site treatment facilities within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The choice of extension or creation of systems shall follow the requirements in Objective 2K3d (2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from a pattern of failing septic systems (where the failing systems cannot reasonably be addressed through rehabilitation or replacement) or highly concentrated septic systems, where the threat is of sufficient scale to justify a public wastewater collection and treatment system or community on-site treatment facility and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. To address other issues of public health and safety, such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective 2K3d.



Includes Agricultural Resource Area within the Planning Area and within the Conservation and Protection Zones.

**Pollcy 3C1:** To prohibit through Plan Conformance, local development review and Highlands Project Review the development of additional water and wastewater infrastructure in a Agricultural Resource Area (ARA) within the Conservation and Protection Zones of the Planning Area, unless they meet the requirements of Policy 2J4 with Objectives 2J4a through 2J4d, and Policy 2K3 with Objectives 2K3a through 2K3e, and will maximize the preservation of agricultural lands within the ARA.

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New Jersey Historic Properties:

New Jersey Historic Districts:

Archeological 1 Sq Mi Grids:

□

Consists of all properties listed on the New Jersey or the National Register of Historic Places, all properties which have been deemed eligible for listing on the New Jersey or National Register, and all properties for which a formal SHPO opinion has been issued. A SHPO opinion is an evaluation of eligibility prepared when a federally funded activity is expected to have an effect on historic properties not listed on the National Register.

**Policy 4A3:** To ensure through local development review, where a municipality has adopted an historic preservation ordinance under Policy 4C2, that human development does not adversely affect the character or value of resources which are listed on the Highlands Historic and Cultural Resource Inventory to the maximum extent practicable.

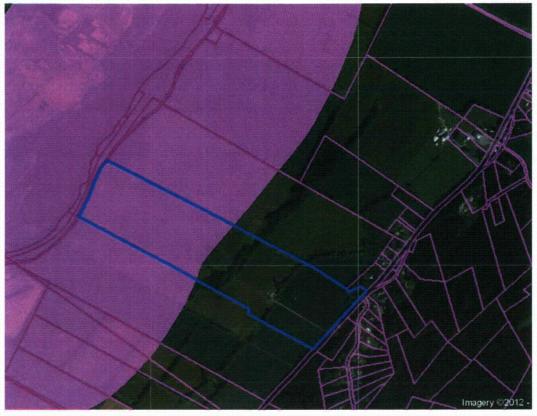
**Objective 4A3a:** All development and redevelopment applications shall include submission of a report identifying potential historic, cultural and/or archaeological resources on the subject property or immediately adjacent properties.

**Policy 4A4:** To require that the impact of proposed human development on the historic and cultural resources of the Highlands Region be addressed during local development review and Highlands Project Review and approval.

**Objective 4A4a:** All applications for site plan or subdivision approval shall include identification of any cultural, historic or archaeological resources in the Highlands Region, which are listed on the Highlands Historic and Cultural Resource Inventory and may be affected by the proposed development.

**Objective 4A4b:** Where a municipality has adopted an historic preservation ordinance under Policy 4C2, all development which affects identified cultural, historic sites/districts, or archaeological resources shall comply with minimum standards for the preservation of the affected resources.



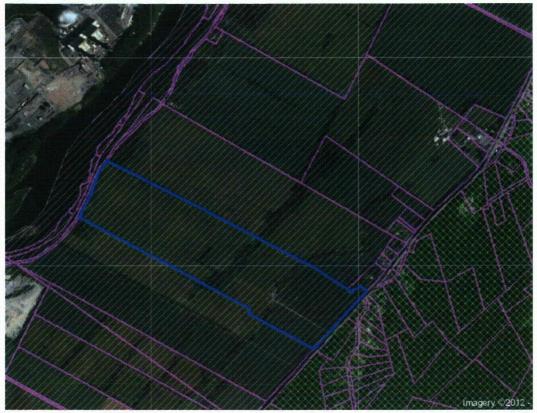


Within Half Mile of Freight Rail Network:

Includes all developed lands within a 1/2 mile buffer from all frieght rail networks.

**Objective 5A2a:** Encourage the movement of goods from the roadway network to the freight rail network wherever possible.





Planning Area / Preservation Area: Planning Area / Preservation Area

Means lands within the Highlands Region which are not within the Preservation Area.

**Objective 7F1d:** Planning Area exemptions, issued by the Highlands Council, shall be required, where appropriate, prior to consideration of a local development review or a Highlands Project Review. Guidance shall specify the exceptions where a review may proceed absent such an exemption determination. Applications for exemptions submitted to the Highlands Council shall be based upon the application requirements exemptions codified in N.J.A.C. 7:38.

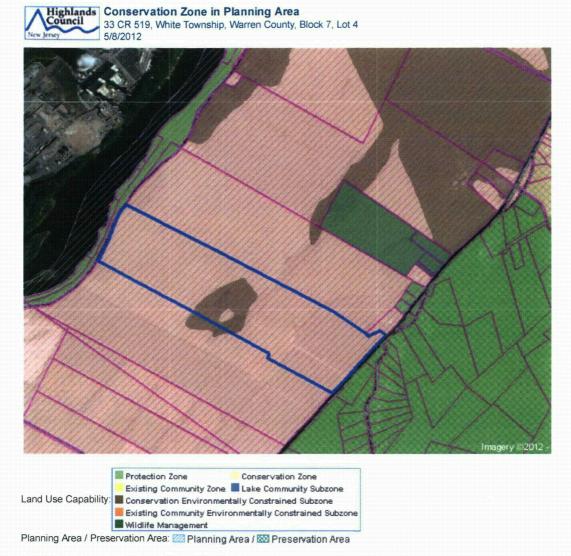


Consists of areas with significant agricultural lands and interspersed with associated woodlands and environmental features.

**Objective 2B4d:** The highest priority for agricultural water uses in the Conservation Zone shall be those Preservation Area uses that promote agricultural and horticultural uses and opportunities that are compatible with protection of the Highlands environment, and those Planning Area uses that promote the continuation and expansion of agricultural, horticultural, recreational, and cultural uses and opportunities. Compatible agricultural and horticultural uses shall minimize consumptive water uses through efficiency measures.

**Policy 6D3:** To limit through Plan Conformance, local development review and Highlands Project Review the use and development of lands within the Conservation Zone to agriculture use and development, including ancillary and support uses, redevelopment of existing developed areas, and environmentally-compatible low density land uses that are to the maximum extent possible achieved in compact development patterns, to be designed and developed in a manner which is compatible with the long term use of adjacent land for agricultural purposes.

**Objective 6D3b:** Centers in the Conservation Zone, potentially including clustered development, shall be at densities appropriate to the Zone, the community character, the State Development and Redevelopment Plan, and the use of septic systems or community wastewater systems.



Includes the Conservation Zone within the Planning Area.

**Objective 2L2b:** Use the median concentrations of nitrate in ground water for Planning Area HUC14 subwatersheds where the Conservation Zone is predominant as the nitrate target for new development reliant on septic systems within the Conservation Zone. The median is 1.87 mg/L.

**Policy 6J3:** To encourage redevelopment in the Conservation and Protection Zones in the Planning Area of brownfields and grayfields that have adequate water, wastewater, transportation capacity, and are appropriate for increased land use intensity or conversion to greenfields, as approved through Plan Conformance or the Highlands Redevelopment Area Designation process.



Includes both the Conservation Zone and the Protection Zone.

**Objective 2L3f:** Carrying capacity shall be documented through the Land Use Capability Septic System Yield Map as the number of allowable septic systems per Conservation and Protection Zone for each HUC14 subwatershed, taking into account the nitrate target, the HUC14 subwatershed drought ground water recharge, and the acreage that is privately owned, undeveloped or underdeveloped, and not preserved.



Protection Zone or Conservation Zone or Environmentally Constrained Sub-Zones in Planning Area OR Existing Community Zone
33 CR 519, White Township, Warren County, Block 7, Lot 4



Includes the Protection Zone, Conservation Zone, Environmentally Constrained Sub-Zones and the Existing Commmunity Zone within the Planning Area.

**Policy 2J4:** To minimize, through Plan Conformance, local development review and Highlands Project Review, the creation or extension of public water supply systems within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area, and to allow for the creation or extension of public water supply systems where appropriate within the Existing Community Zone.



# Protection Zone or Conservation Zone or Environmentally Constrained Sub-Zones in Planning Area

33 CR 519, White Township, Warren County, Block 7, Lot 4 5/8/2012



Includes the Protection Zone, Conservation Zone, and the Envrionmentally Constrained Sub-Zones within the Planning Area.

Objective 2J4a: Prohibit new, expanded or extended public water systems within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The extension or creation of systems shall follow the requirements in Objective 2J4b (parts 2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from contaminated domestic and other on-site water supplies that is of sufficient scale to justify a public water supply and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. Such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective 2J4b.

**Objective 2J4b:** Clustered development served by public water supply within the Protection Zone, the Conservation Zone, and the Environmentally-Constrained Sub-zones of the Planning Area shall be approved only if

the following conditions are met: 1. The development impacts are otherwise consistent with the requirements of the RMP, including provisions for mandatory clustering in Agricultural Resource Areas pursuant to Policy 3A5; 2. Extension of an existing public water system will occur only where the cluster development is within or immediately adjacent to an Existing Area Served with available capacity; 3. Creation of a new public water system will occur only where such development is not within or immediately adjacent to an Existing Area Served with available capacity; 4. The clustered development preserves at least 80% of the cluster project area in perpetuity for environmental protection or agricultural purposes. To the maximum extent feasible the developed portion (i.e., not including wetlands, Highlands Open Waters buffers, and recreational lands) occupies no more than 10% of the cluster project area if served by a public or community on-site wastewater system; and 5. Where the preserved land in the cluster project area is dedicated to agricultural purposes, the cluster development ordinance and an Agriculture Retention/Farmland Preservation Plan supports continued agricultural viability of the agricultural land and requires the implementation of best management practices, including development and implementation of a Farm Conservation Plan that addresses the protection of water and soil resources prepared by the USDA Natural Resources Conservation Service (NRCS), Technical Service Provider (TSP), appropriate agent or NJDA staff, and approved by the local Soil Conservation District (SCD).

**Objective 2J4d:** All development within the Highlands Region, in areas that are not served by public water systems, shall be at a density that can be supported by on-site wells. Where cluster development in the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area will be served by on-site wells, and the undeveloped land is preserved for agricultural purposes in perpetuity, the cluster development in combination with the Agriculture Retention/Farmland Preservation Plan required by Objective 2J4b shall provide for best management practices that protect the on-site wells from contamination resulting from agricultural practices and shall include provisions to minimize or reduce net pollutant loadings from the total cluster project area including the preserved agricultural lands.

Objective 2K3c: Prohibit new, expanded or extended public wastewater collection and treatment systems and community on-site treatment facilities within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area unless they are shown to be necessary for and are approved by the Highlands Council for one or more of the purposes listed below. For approvals regarding parts 1, 2, and 3, the project must maximize the protection of sensitive environmental resources such as Highlands Open Waters buffer areas, Riparian Areas, the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, Steep Slopes, Prime Ground Water Recharge Areas and Critical Habitat. For approvals regarding part 3, the project must avoid disturbance of Highlands Open Waters buffer areas, Riparian Areas, Steep Slopes and Critical Habitat, and must minimize disturbance of the forested portion of the Forest Resource Area, agricultural lands of Agricultural Resource Areas, and Prime Ground Water Recharge Areas. The choice of extension or creation of systems shall follow the requirements in Objective 2K3d (2 and 3). The applicable purposes are: 1. To address through a waiver under Policy 7G1 or 7G2 a documented existing or imminent threat to public health and safety from a pattern of failing septic systems (where the failing systems cannot reasonably be addressed through rehabilitation or replacement) or highly concentrated septic systems, where the threat is of sufficient scale to justify a public wastewater collection and treatment system or community on-site treatment facility and where no alternative is feasible that would sufficiently assure long-term protection of public health and safety. To address other issues of public health and safety, such needs shall have highest priority for allocation of existing system capacity; 2. To address development permitted through a Highlands Redevelopment Area or takings waiver under Policy 7G1 or 7G2; or 3. To serve a cluster development that meets all requirements of Objective 2K3d.

**Objective 2K3d:** Clustered development served by a public wastewater collection and treatment system or community on-site treatment facility within the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-zones of the Planning Area shall be approved only if the following conditions are met: 1. The development impacts are otherwise consistent with the requirements of the RMP, including provisions for mandatory clustering in Agricultural Resource Areas; 2. Extension of an existing public wastewater collection and treatment system will occur only where the cluster development is within or immediately adjacent to an Existing Area Served with available capacity; 3. Creation of a community on-site treatment facility will occur only where such development is not within or immediately adjacent to an Existing Area Served with available capacity, where the proposed system is designed, permitted, and constructed at a capacity limited to the needs of the clustered development, and where the system does not create the potential for future expansion into areas that are not the subject of cluster developments immediately adjacent to the initial cluster served; 4. The cluster development

preserves at least 80% of the cluster project area in perpetuity for environmental protection or agriculture purposes. To the maximum extent feasible the developed portion of the project area (e.g., not including wetlands, Highlands Open Waters buffers, and recreational lands) occupies no more than 10% of the cluster project area if served by a public or community on-site wastewater system; and 5. Where the preserved land in the cluster project area is dedicated to agricultural purposes, the cluster development ordinance and an Agriculture Retention/Farmland Preservation Plan supports continued agricultural viability of the agricultural land and requires the implementation of best management practices, including development and implementation of a Farm Conservation Plan that addresses the protection of water and soil resources prepared by the USDA Natural Resources Conservation Service (NRCS), Technical Service Provider (TSP), appropriate agent or NJDA staff, and approved by the local Soil Conservation District (SCD).

**Objective 2K3f:** All development within the Highlands Region, in areas which are not served by public wastewater collection and treatment system or community on-site treatment facility, shall be at a density that can be supported by septic systems under Goal 2L. Where cluster development in the Protection Zone, the Conservation Zone and the Environmentally-Constrained Sub-Zones of the Planning Area shall be served by on-site wells, and the undeveloped land is preserved for agricultural purposes in perpetuity, the cluster development and the Agriculture Retention/Farmland Preservation Plan required by Objective 2K3d in combination shall include provisions for best management practices that protect the on-site wells from contamination resulting from agricultural practices and shall include provisions to minimize or reduce net pollutant loadings from the total cluster project area including the preserved agricultural lands.

**Objective 6H1b:** Prevent the extension or creation of water and wastewater utility services in the Protection Zone, Conservation Zone and Environmentally Constrained Sub-Zones of the Planning Area, unless they meet the requirements of Policy 2J4 with Objectives 2J4a through 2J4d, and Policy 2K3 with Objectives 2K3a through 2K3e, and will maximize the protection of agricultural and environmentally sensitive resources.



Includes policies and objectives pertinent to the consitency review that are not associated with specific mapping features.

## Lake Management

Objective 1L2a, Objective 1L4a, Objective 1L4b, Policy 1L5, Objective 1L5a, Objective 1L5b, Policy 1L6, Policy 1M4

## **Water Resources Availability**

Policy 2B5, Objective 2B6b, Objective 2B8e

# **Water Quality**

Policy 2G2, Policy 2G3, Objective 2G3a, Objective 2G3b, Objective 2G3c, Policy 2G5, Objective 2G5a, Objective 2G5b, Objective 2G5c

# **Sustainable Development: Water Utility**

Policy 2J5, Policy 2J7, Objective 2J7a, Objective 2J7b, Objective 2J7c, Objective 2J7d

## **Sustainable Development: Wastewater Utility**

Policy 2K3, Objective 2K4b, Objective 2K4b, Objective 2K4c

# Sustainable Development: Septic System Yield

Policy 2L2, Objective 2L2g

# **Agricultural Resources**

Policy 3E3, Policy 3E4

#### Historic, Cultural, Archaeological, and Scenic Resources

Policy 4B5, Objective 4B5a, Objective 4B5b, Objective 4B5c

#### **Transportation**

Policy 5A2, Policy 5A3, Policy 5B3, Policy 5B3, Policy 5C3, Policy 5C5, Policy 5E1, Objective 5E1a, Policy 5E3

### **Development and Redevelopment**

Policy 6H6, Policy 6H7, Policy 6H8, Objective 6H8a, Policy 6H9

#### **Smart Growth**

Policy 6N2, Objective 6N2a, Objective 6N2b, Objective 6N2c, Objective 6N2d, Objective 6N2e, Policy 6N3, Policy 6N5

### **Housing and Community Facilities**

Policy 6O7, Policy 6O8, Objective 6O8a

# **Landowner Equity**

Objective 7F1f