

# A-11 Highlands Council Analysis of Former Municipal Building Site





# Regional Master Plan Consistency Report

3/5/2015

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Prepared by State of New Jersey Highlands Water Protection and Planning  
Council  
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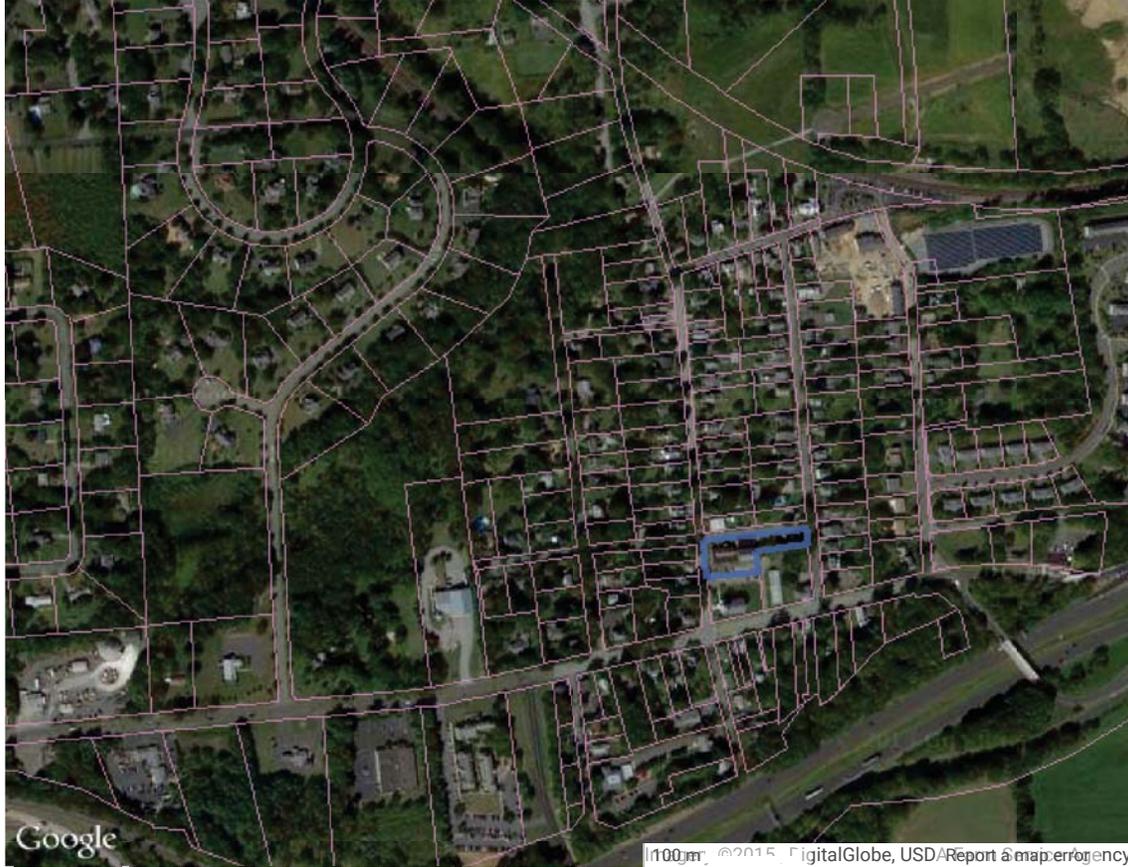
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Disclaimer

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**Former Municipal Building Site, 6 West Street, Block 53, Lot 3, Clinton Township, Hunterdon County**





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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Highlands Domestic Sewerage Facilities: ■

Highlands Domestic Sewerage Facilities displays those areas served by public wastewater utilities. The map indicates areas that are actually connected into a public wastewater collection system, not simply located in a Sewer Service Area. Public sewer systems discharging less than 0.15 million gallons per day (MGD) to surface water or 0.075 MGD to ground water are not included. Private, on-site treatment facilities like a package treatment plant are also not included. The Regional Master Plan limits the creation or extension of public wastewater systems.

**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).

**Policy 2J6:** To encourage water recycling/reuse measures, such as domestic and institutional gray water systems, where appropriate, to minimize water use in existing land uses.

**Objective 2I1a:** Designated sewer service areas in the Preservation Area shall be restricted to the Existing Area Served as of August 10, 2004, except to serve development that is approved through a HAD or a HPAA with waiver pursuant to N.J.A.C. 7:38 and Policy 7G1.

**Policy 2K2:** To base projected demand for current needs, appropriate economic revitalization and opportunities for designated TDR Receiving Zones within Existing Areas Served on existing maximum three month demands plus an estimate of redevelopment needs based on either Highlands Council regional analyses or more detailed local analyses, to assess whether there is adequate treatment capacity to encourage redevelopment.

**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 2K3e:** Allow the expansion or creation of wastewater collection systems within the Existing Community Zone of the Planning Area, other than the Environmentally-Constrained Sub-zone, to serve lands which are appropriate for designated TDR Receiving Zones, infill or redevelopment, to meet needs and protection requirements equivalent to those provided at Objective 2K3c within the Existing Community Zone, or to serve new areas for development that meet all other requirements of the RMP. The highest priority for allocation of excess or additional wastewater treatment capacity is to areas where there are clusters of failed septic systems that are located within or adjacent to Existing Areas Served. TDR Receiving Areas, where designated, affordable housing projects (where the affordable units exceed 10% of the total units), infill and redevelopment shall have higher priority for capacity than other developments requiring expansion of sewer service areas.

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Wellhead Protection Area:   2-Year Tier   5-Year Tier   12-Year Tier

A Wellhead Protection Area is a mapped area around a public water supply well that delineates the horizontal extent of ground water captured by a public water supply well pumping at a specific rate over a specific time. Wellhead Protection Areas consist of three tiers; the ground water within each tier takes a specified period of time to travel to the well: Tier 1 is a two-year time of travel; Tier 2 is equivalent to a five-year time of travel; Tier 3 is equivalent to a twelve-year time of travel. Wellhead Protection Areas are important areas for the protection of ground water quality.

**Policy 2H2:** To develop and implement, through Plan Conformance, local development review and Highlands Project Review, resource protection measures to protect and enhance ground water and water supply resources within Wellhead Protection Areas consistent with the source water assessments for each water supply source.

**Objective 2H4a:** Require site specific and municipal stormwater management plans to address wellhead protection requirements.

**Policy 2H5:** To require that conforming municipalities revise master plans and development regulations to address wellhead protection requirements.

**Objective 2H5b:** Restrict development activities that pose threats to the water quality of public water supply wells.

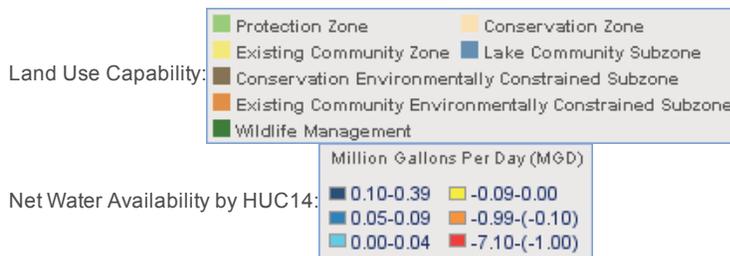
**Objective 2H5c:** Ensure that development activities and existing land use activities implement best management practices to protect the quality of ground water within Wellhead Protection Areas.

**Objective 2H5d:** Amend Areawide Water Quality Management Plans or Wastewater Management Plans for conforming municipalities and counties to ensure that any activity associated with the proposed service area will not adversely affect a Wellhead Protection Area.

**Objective 2G6c:** Require conforming municipal and county master plans and development regulations to incorporate relevant TMDLs, additional water quality protection measures and wellhead protection for public water supply wells and nitrate standards as development standards.

**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.

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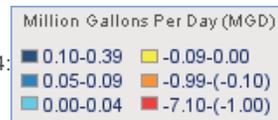
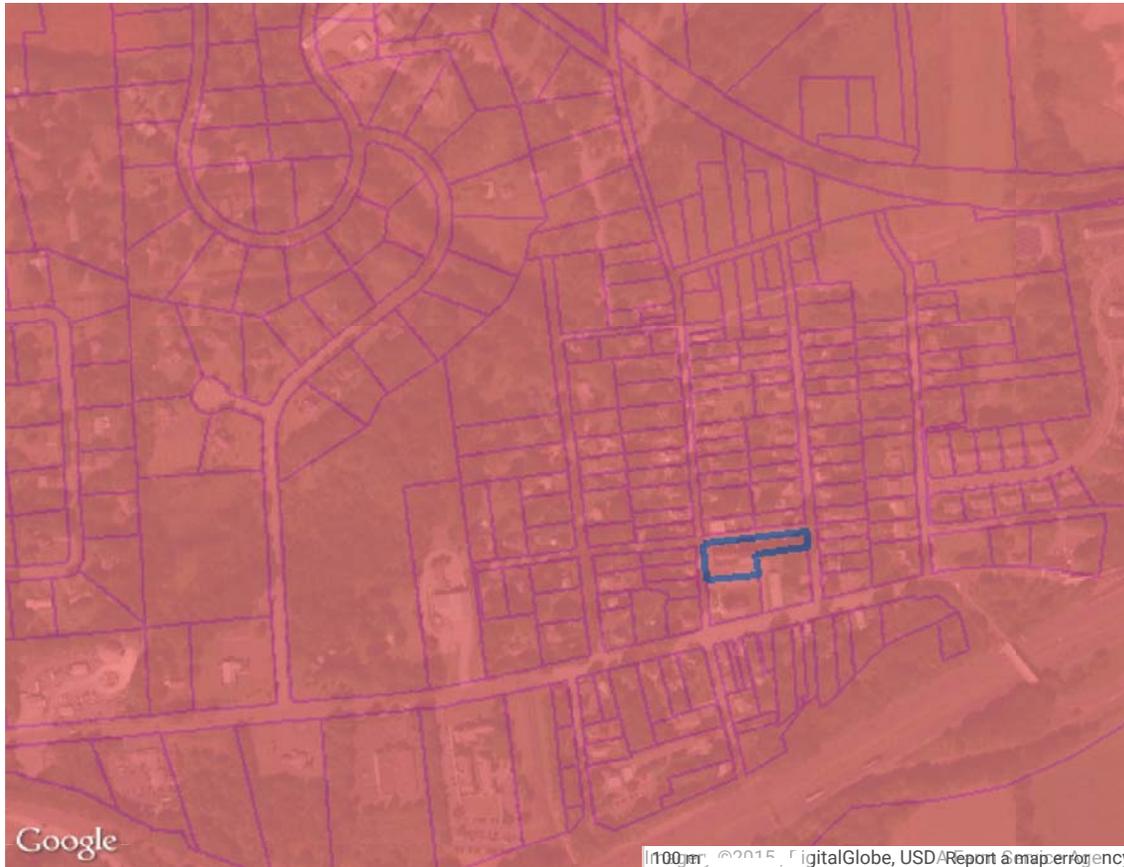


Identifies the portion of a HUC14 subwatershed within the Existing Community Zone.

**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 2B4b:** The highest priority for use of Net Water Availability or Conditional Water Availability within Existing Community Zone subwatersheds, through a Water Use and Conservation Plan developed under Objective 2B8c, local development review and Highlands Project review to serve documented threats to public health and safety from contaminated water supplies, designated TDR Receiving Zones, infill development, designated Highlands Redevelopment Area, affordable housing projects where at least 10% of the units are affordable, or new areas for development that meet all other requirements of the RMP.

**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 by HUC14:

Identifies HUC14 subwatersheds that are in deficit of Net Water Availability.

**Policy 2B6:** To require through Plan Conformance (including through a Water Use and Conservation Plan developed under Objective 2B8c), local development review, Highlands Project Review, and interagency coordination that proposed public water supply and wastewater service areas, new or increased water allocations and bulk water purchases will not directly or indirectly cause or contribute to a Net Water Availability deficit, and where feasible will help mitigate any existing deficit.

**Objective 2B6a:** Areawide Water Quality Management Plans, Wastewater Management Plans or their amendments shall ensure that the proposed service area will not directly or indirectly cause or contribute to a Net Water Availability deficit, and shall be in conformance with any Water Use and Conservation Plan developed under Objective 2B8c.

**Policy 2B8:** To require through Plan Conformance, local development review, and Highlands Project Review the efficient and effective use of water availability, the planning for future water needs, the reduction and elimination of water deficits, and the mitigation of new consumptive or depletive use in any Current Deficit Areas or subwatersheds that could become deficit areas based on projected development and water uses, to ensure sustainable water supply, water resource and ecological values in conformance with RMP policies and objectives.

**Objective 2B8a:** Prevent net increases in consumptive or depletive water uses in Current Water Deficit Areas to prevent exacerbation of and help reduce or eliminate the deficit to ensure sustainable water supply, water resource and ecological values, emphasizing techniques including, but not limited to water reuse, recycling and conservation.

**Objective 2B8b:** Proposed new consumptive or depletive water uses within a Current Deficit Area

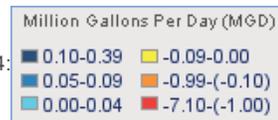
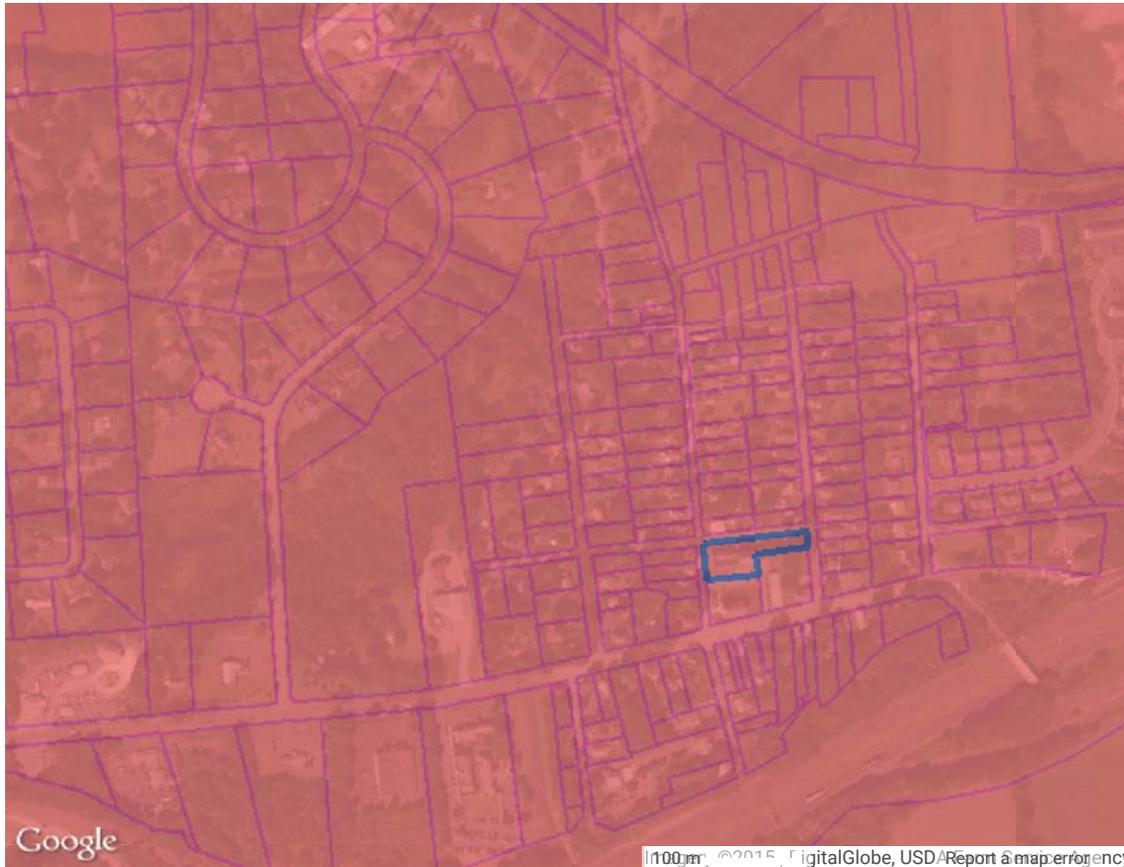
shall only occur under the auspices of a Water Use and Conservation Management Plan approved under Objective 2B8c or through mitigation of the proposed consumptive or depletive use within the same HUC14 subwatershed through: a permanent reduction of existing consumptive and depletive water uses; ground water recharge in excess of the requirements of N.J.A.C. 7:8 (Stormwater Management Rules); or other permanent means. Where a Water Use and Conservation Management Plan has not been approved: 1. Each project shall achieve mitigation ranging from 125% to 200%, based on the severity of the Current Deficit and the amount of consumptive or depletive water use proposed; 2. Total consumptive and depletive water uses from any single project and all projects combined are not to exceed the Conditional Water Availability of Objectives 2B3a or 2B3b for any HUC14 subwatershed; 3. Mitigation shall be successfully completed prior to initiation of the water use, except as required by #4, below. Mitigation may be phased in keeping with project development; 4. For water uses where the combination of proposed consumptive and depletive water uses and current subwatershed deficit is high, according to a schedule established by the Highlands Council, off-site mitigation shall be successfully completed prior to any on-site construction. On-site mitigation shall be successfully completed prior to initiation of the water use but may be implemented concurrent with on-site construction. Mitigation may be phased in keeping with the level of consumptive or depletive water uses; and Mitigation plans for a project shall include: specific objectives for each mitigation component; monitoring and reporting requirements; methods by which shortfalls in meeting the mitigation objectives shall be addressed through additional action; and be guaranteed through performance bonds.

**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 2B8d:** All water users within a Current Deficit Area shall seek funding and opportunities to meet the intent of Objective 2B4b.

**Objective 2J2a:** Limit future water system demand and reduce existing demand where feasible by water systems that are dependent on Current Deficit Areas or Existing Constrained Areas as a source of water.

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Net Water Availability by HUC14:

Net Water Availability is calculated for each HUC14 subwatershed by deducting consumptive and depletive water uses from Ground Water Availability. The Regional Master Plan incorporates 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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Wellhead Protection Area:   2-Year Tier   5-Year Tier   12-Year Tier

Identifies the Tier 3 portion of a Wellhead Protection Area. The calculated time for ground water to travel to the well from this zone is twelve years. Tier 3 also includes the land area within Tiers 2 and 1.

**Objective 2H2c:** Require that land uses that have a significant potential to result in major discharges of persistent organic or toxic 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 designated Tier 3 Wellhead Protection 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.

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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.



New Jersey Transit Bus Routes:—

Private Bus Routes:---

- Bergen + Main Line
  - Montclair Boonton Line
- Rail Stations:
- Morris + Essex Line - Gladstone Branch
  - Morris + Essex Line - Morristown Branch
  - Raritan Valley Line

Park & Ride Sites:●

Includes all developed lands within a 1/2 mile buffer from all park and ride locations, rail stations, and NJ Transit public and major private bus routes in or within 1/2 mile of the Highlands Region.

**Objective 5E1b:** Development and redevelopment in close proximity to rail stations and along bus routes.



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.

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Consists of areas with regionally significant concentrated development signifying existing communities.

**Objective 2J4c:** Allow the expansion or creation of public water systems within the Existing Community Zone of the Planning Area, other than the Environmentally-Constrained Sub-zone, to serve lands which are appropriate for designated TDR Receiving Zones, infill or redevelopment, to meet needs and protection requirements equivalent to Objective 2J4a within the Existing Community Zone, or to serve new areas for development that meet all other requirements of the RMP. TDR Receiving Zones, affordable housing projects (where the affordable units exceed 10% of the total units), infill and redevelopment shall have higher priority for capacity than expansion of public water service areas within this Zone.

**Objective 2K3e:** Allow the expansion or creation of wastewater collection systems within the Existing Community Zone of the Planning Area, other than the Environmentally-Constrained Sub-zone, to serve lands which are appropriate for designated TDR Receiving Zones, infill or redevelopment, to meet needs and protection requirements equivalent to those provided at Objective 2K3c within the Existing Community Zone, or to serve new areas for development that meet all other requirements of the RMP. The highest priority for allocation of excess or additional wastewater treatment capacity is to areas where there are clusters of failed septic systems that are located within or adjacent to Existing Areas Served. TDR Receiving Areas, where designated, affordable housing projects (where the affordable units exceed 10% of the total units), infill and redevelopment shall have higher priority for capacity than other developments requiring expansion of sewer service areas.

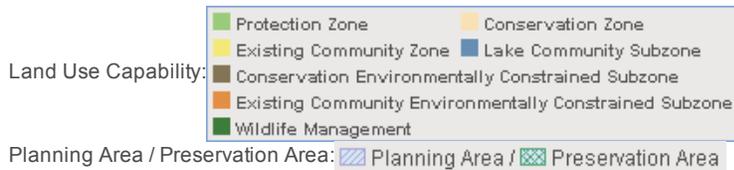
**Policy 6F3:** To ensure that development activities within the Existing Community Zone are subject to standards and criteria which ensure that development and redevelopment incorporate smart growth principles and do not adversely affect natural resources.

**Policy 6F4:** To ensure that development and redevelopment within the Existing Community Zone are served by adequate public facilities including water supply, wastewater treatment, transportation, educational and community facilities.

**Policy 6F5:** To ensure that development and redevelopment in the Existing Community Zone are compatible with existing community character.

**Objective 6F6a:** Center based development initiatives shall be planned within the Existing Community Zone at densities appropriate to the Zone, the community character, the State Development and Redevelopment Plan. Densities of five dwelling units and above are encouraged, and are required in areas designated as voluntary TDR Receiving Zones where TDR benefits are sought under the Highlands Act.

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Includes the Existing Community Zone within the Planning Area.

**Objective 2L2d:** Use a nitrate target of 2 mg/L for the Existing Community Zone within Planning Area, on a project-by-project basis, where new development will rely on septic systems.

**Policy 6J2:** To encourage redevelopment in the Existing Community Zone in the Planning Area of brownfields, grayfields, and other previously developed areas 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.



Planning Area / Preservation Area:  Planning Area /  Preservation Area

Includes the Protection Zone, Conservation Zone, Environmentally Constrained Sub-Zones and the Existing Community 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.



# A-12 Highlands Council Analysis of Marookian Site





# Regional Master Plan Consistency Report

3/5/2015

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Prepared by State of New Jersey Highlands Water Protection and Planning  
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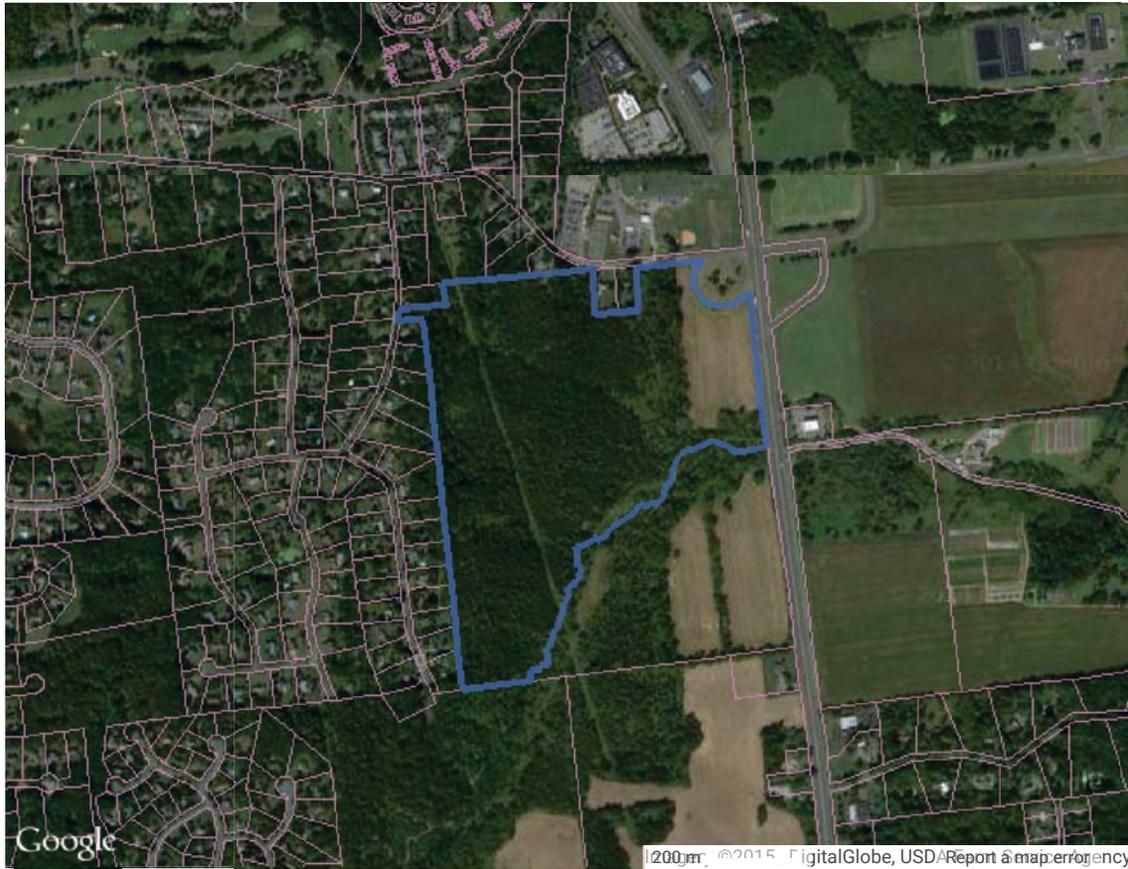
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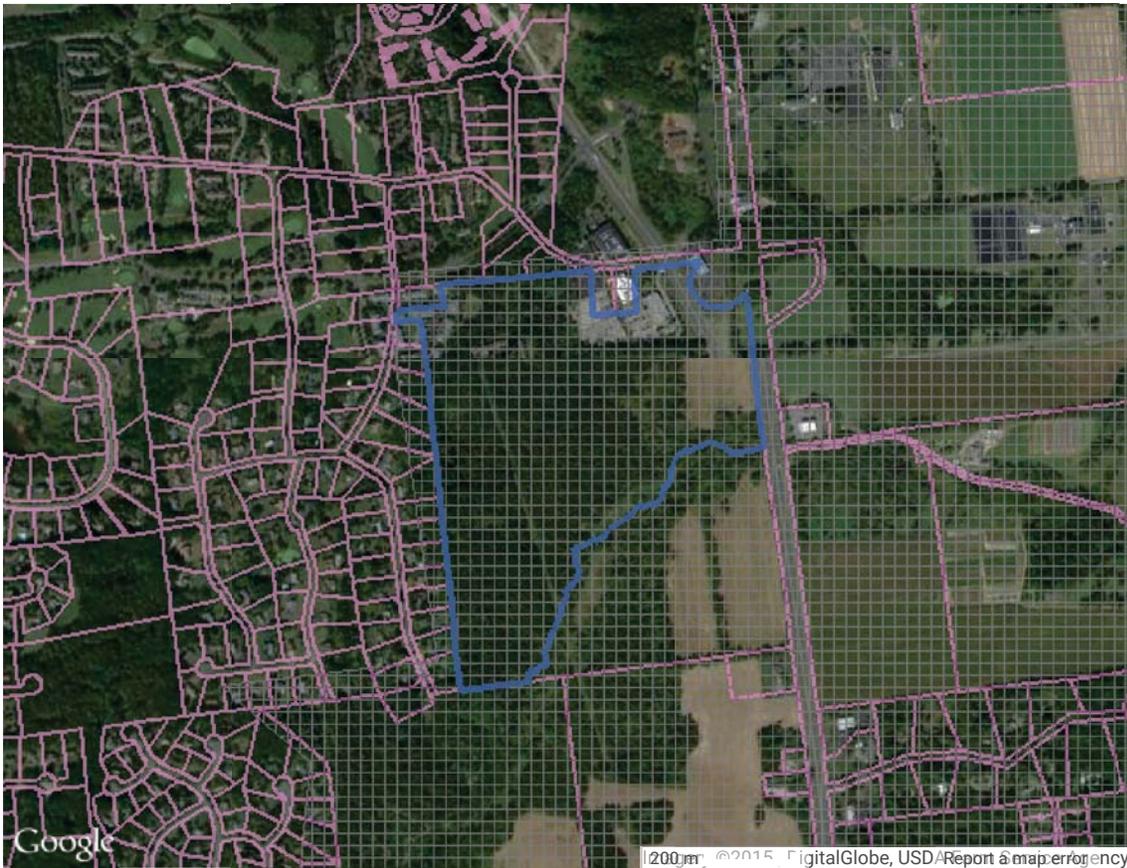
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### Marookian Site (1), Block 82, Lot 4, Clinton Township, Hunterdon County





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.

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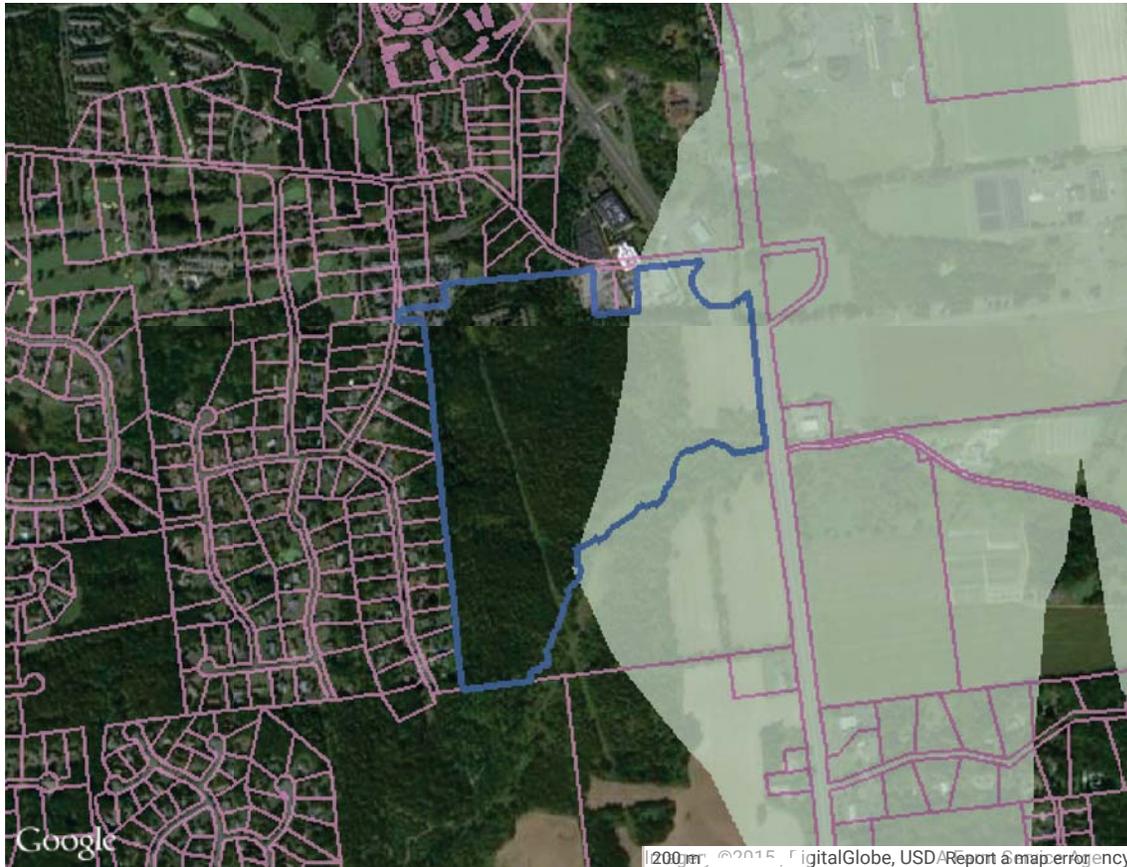
Agricultural Uses: ■

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.

**Policy 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.

**Policy 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.



**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 2I1b:** 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.

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Wellhead Protection Area:  2-Year Tier  5-Year Tier  12-Year Tier

A Wellhead Protection Area is a mapped area around a public water supply well that delineates the horizontal extent of ground water captured by a public water supply well pumping at a specific rate over a specific time. Wellhead Protection Areas consist of three tiers; the ground water within each tier takes a specified period of time to travel to the well: Tier 1 is a two-year time of travel; Tier 2 is equivalent to a five-year time of travel; Tier 3 is equivalent to a twelve-year time of travel. Wellhead Protection Areas are important areas for the protection of ground water quality.

**Policy 2H2:** To develop and implement, through Plan Conformance, local development review and Highlands Project Review, resource protection measures to protect and enhance ground water and water supply resources within Wellhead Protection Areas consistent with the source water assessments for each water supply source.

**Objective 2H4a:** Require site specific and municipal stormwater management plans to address wellhead protection requirements.

**Policy 2H5:** To require that conforming municipalities revise master plans and development regulations to address wellhead protection requirements.

**Objective 2H5b:** Restrict development activities that pose threats to the water quality of public water supply wells.

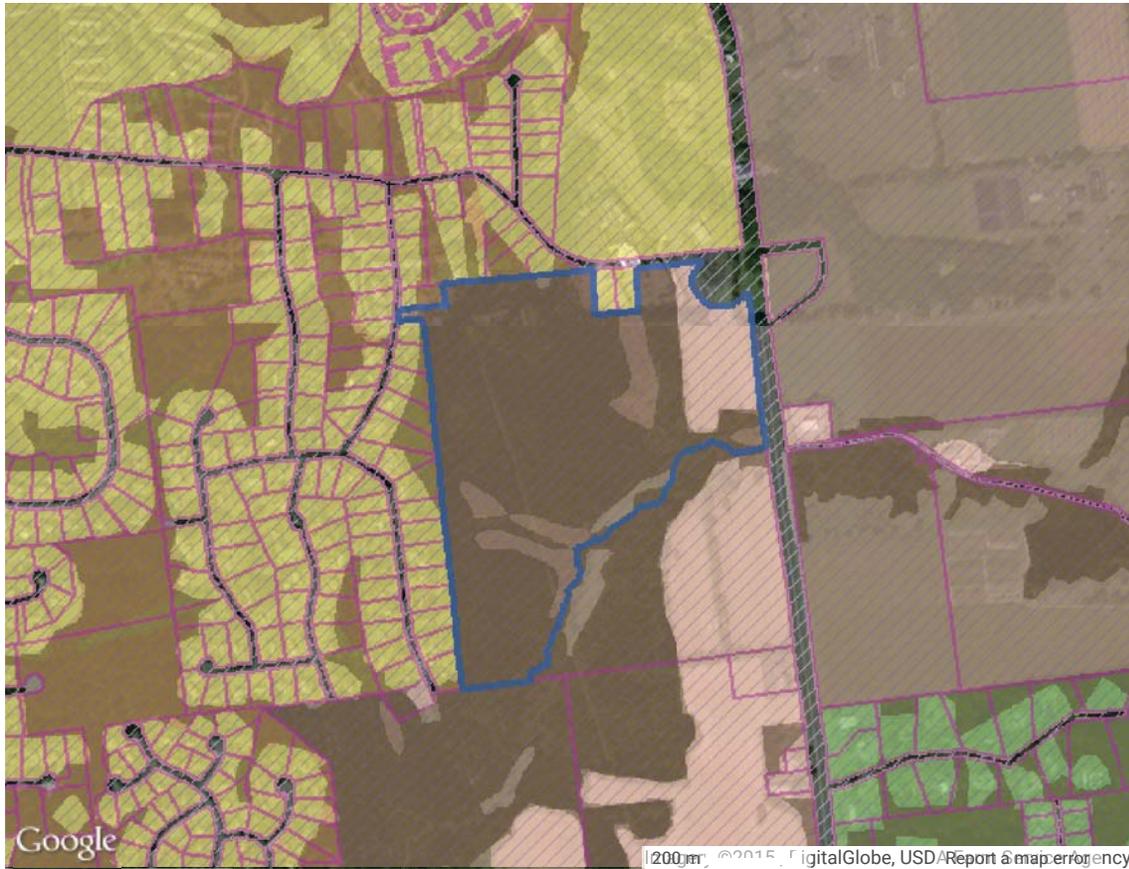
**Objective 2H5c:** Ensure that development activities and existing land use activities implement best management practices to protect the quality of ground water within Wellhead Protection Areas.

**Objective 2H5d:** Amend Areawide Water Quality Management Plans or Wastewater Management Plans for conforming municipalities and counties to ensure that any activity associated with the proposed service area will not adversely affect a Wellhead Protection Area.

**Objective 2G6c:** Require conforming municipal and county master plans and development regulations to incorporate relevant TMDLs, additional water quality protection measures and wellhead protection for public water supply wells and nitrate standards as development standards.

**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.

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Forest Outside of Forest Resource Area: ■

■ Protection Zone	■ Conservation Zone
■ Existing Community Zone	■ Lake Community Subzone
■ Conservation Environmentally Constrained Subzone	
■ Existing Community Environmentally Constrained Subzone	
■ Wildlife Management	

Planning Area / Preservation Area: ■ Planning Area / ■ Preservation Area

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 lands 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.

**Policy 1C3:** 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.

**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.

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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.

**Policy 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 2I1b:** 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.

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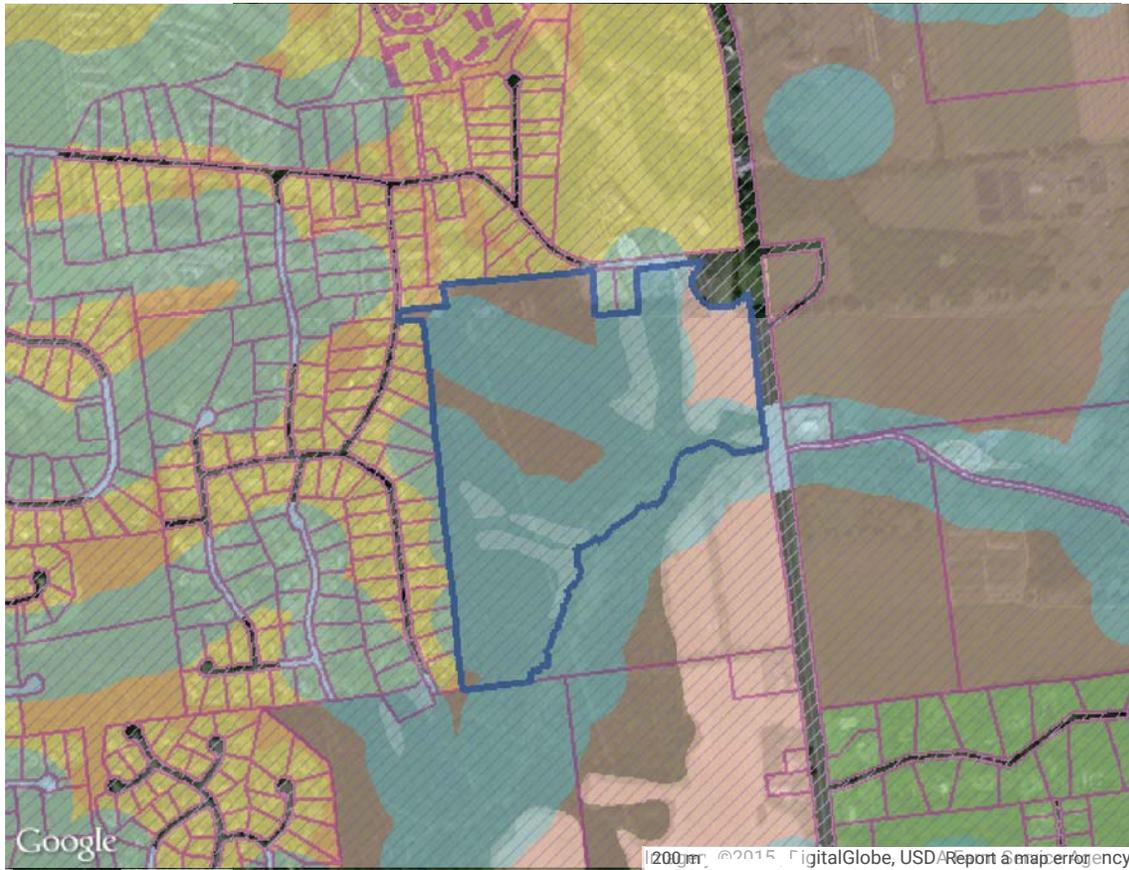
Open Water Protection Area: ■

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.”

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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 2I1b:** 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.

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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 2I1b:** 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.

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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.



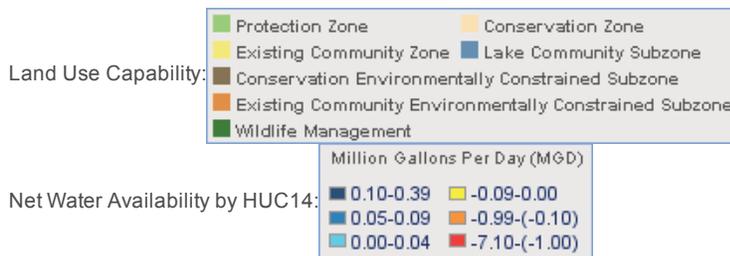
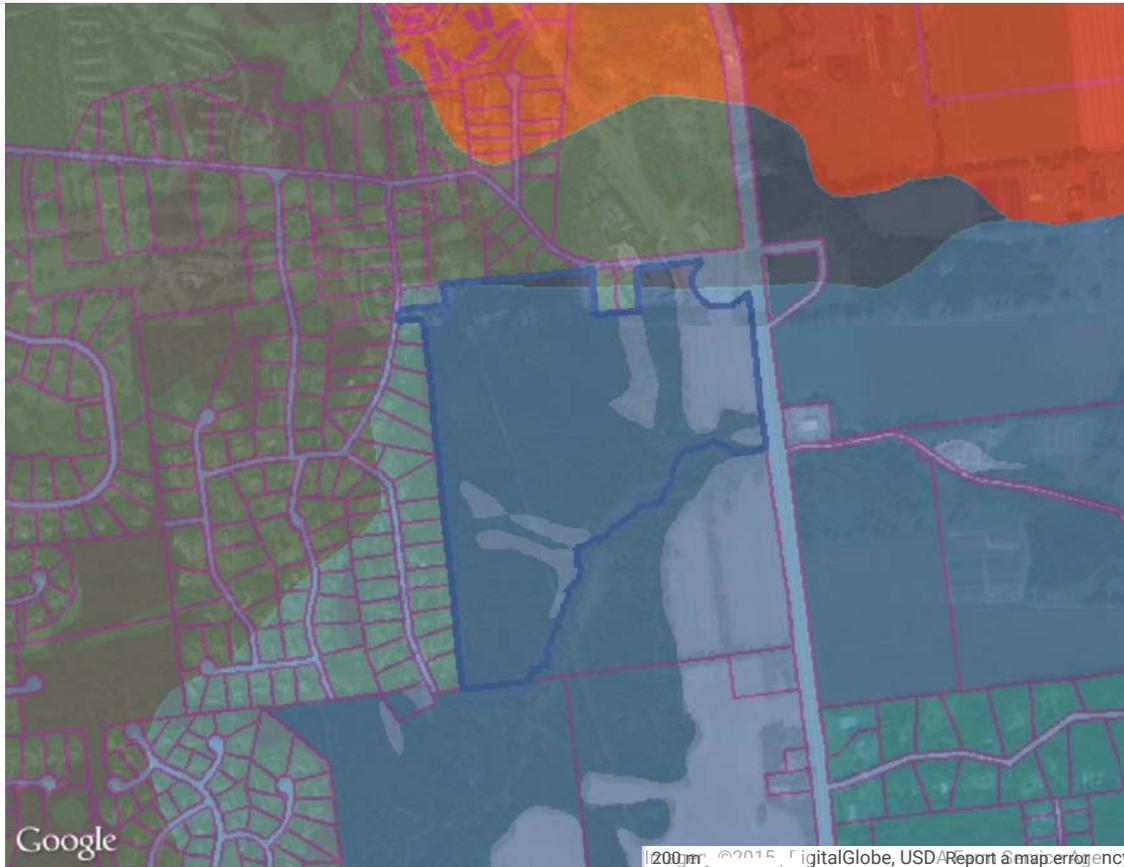
Moderately Constrained Slopes: ■  
Severely Constrained Slopes: ■

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.

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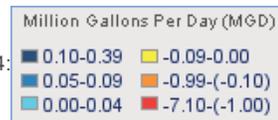
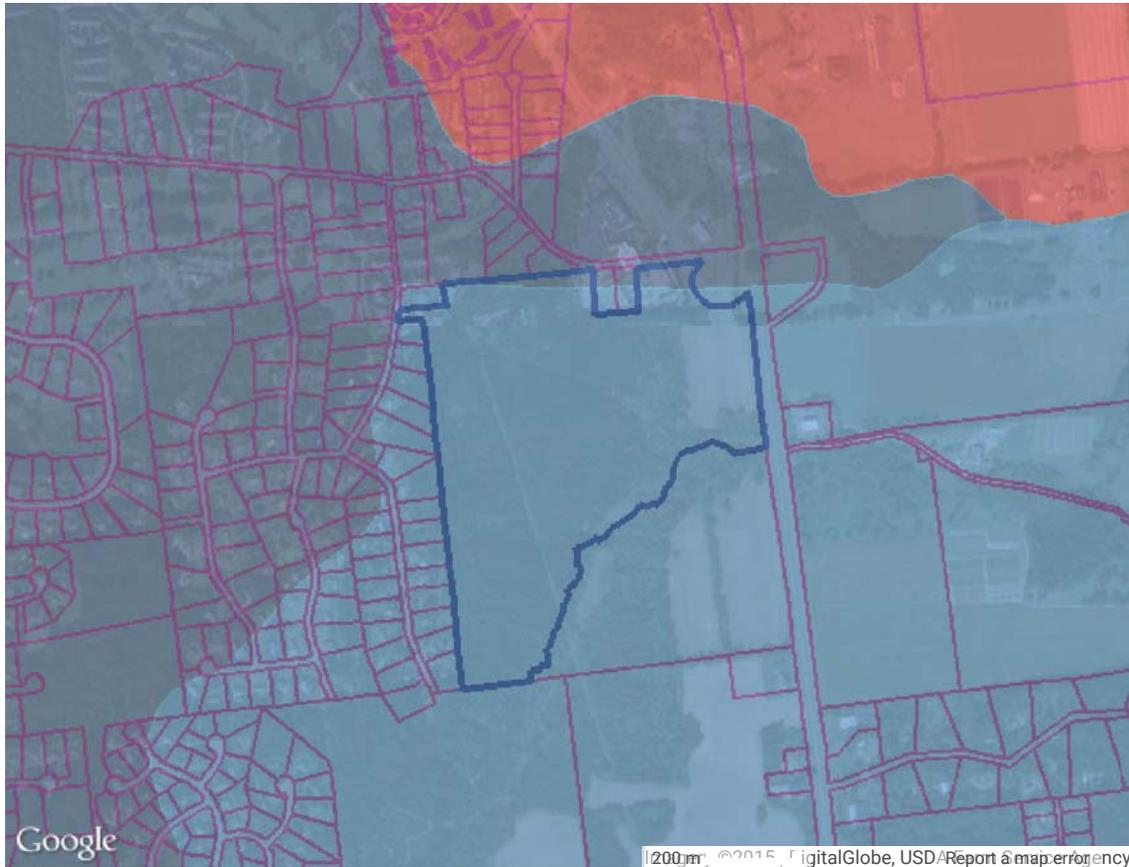


Identifies the portion of a HUC14 subwatershed within the Protection or Conservation Zone.

**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 by HUC14:

Net Water Availability is calculated for each HUC14 subwatershed by deducting consumptive and depletive water uses from Ground Water Availability. The Regional Master Plan incorporates 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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Wellhead Protection Area:  2-Year Tier  5-Year Tier  12-Year Tier

Identifies the Tier 1 portion of a Wellhead Protection Area. The calculated time for ground water to travel to the well from this zone is two years.

**Objective 2H2a:** Prohibit land uses that have a significant potential to result in the discharge of pathogens (including, but not limited to, septic systems and engineered stormwater infiltration from surfaces with significant potential for contact with pathogenic contaminants) to ground water or to the land surface within a designated Tier 1 Wellhead Protection Area, such that they may degrade or contribute to the degradation of ground water quality. Require that the construction of sewer lines within Tier 1 of a Well Head Protection Area prevent seepage of untreated sewage into ground water.

**Objective 2H2b:** Prohibit land uses that have a significant potential to result in the discharge of persistent organic or toxic 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 designated Tier 2 Wellhead Protection Area, such that they may degrade or contribute to the degradation of ground water quality.

**Objective 2H2c:** Require that land uses that have a significant potential to result in major discharges of persistent organic or toxic 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 designated Tier 3 Wellhead Protection 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.

**Objective 2H4b:** Encourage stormwater reuse for non-agricultural irrigation and other non-potable water purposes to minimize the volume of stormwater discharges (other than from clean sources) within a Tier 1 or Tier 2 Wellhead Protection Area.



Wellhead Protection Area: 2-Year Tier 5-Year Tier 12-Year Tier

Identifies the Tier 2 portion of a Wellhead Protection Area. The calculated time for ground water to travel to the well from this zone is five years. Tier 2 also includes the land area within Tier 1.

**Objective 2H2b:** Prohibit land uses that have a significant potential to result in the discharge of persistent organic or toxic 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 designated Tier 2 Wellhead Protection Area, such that they may degrade or contribute to the degradation of ground water quality.

**Objective 2H2c:** Require that land uses that have a significant potential to result in major discharges of persistent organic or toxic 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 designated Tier 3 Wellhead Protection 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.

**Objective 2H4b:** Encourage stormwater reuse for non-agricultural irrigation and other non-potable water purposes to minimize the volume of stormwater discharges (other than from clean sources) within a Tier 1 or Tier 2 Wellhead Protection Area.

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Wellhead Protection Area:  2-Year Tier  5-Year Tier  12-Year Tier

Identifies the Tier 3 portion of a Wellhead Protection Area. The calculated time for ground water to travel to the well from this zone is twelve years. Tier 3 also includes the land area within Tiers 2 and 1.

**Objective 2H2c:** Require that land uses that have a significant potential to result in major discharges of persistent organic or toxic 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 designated Tier 3 Wellhead Protection 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.

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Agricultural Uses: ■

Agricultural Resource Area: ■

Includes all Agricultural Uses within the Agricultural Resource Area.

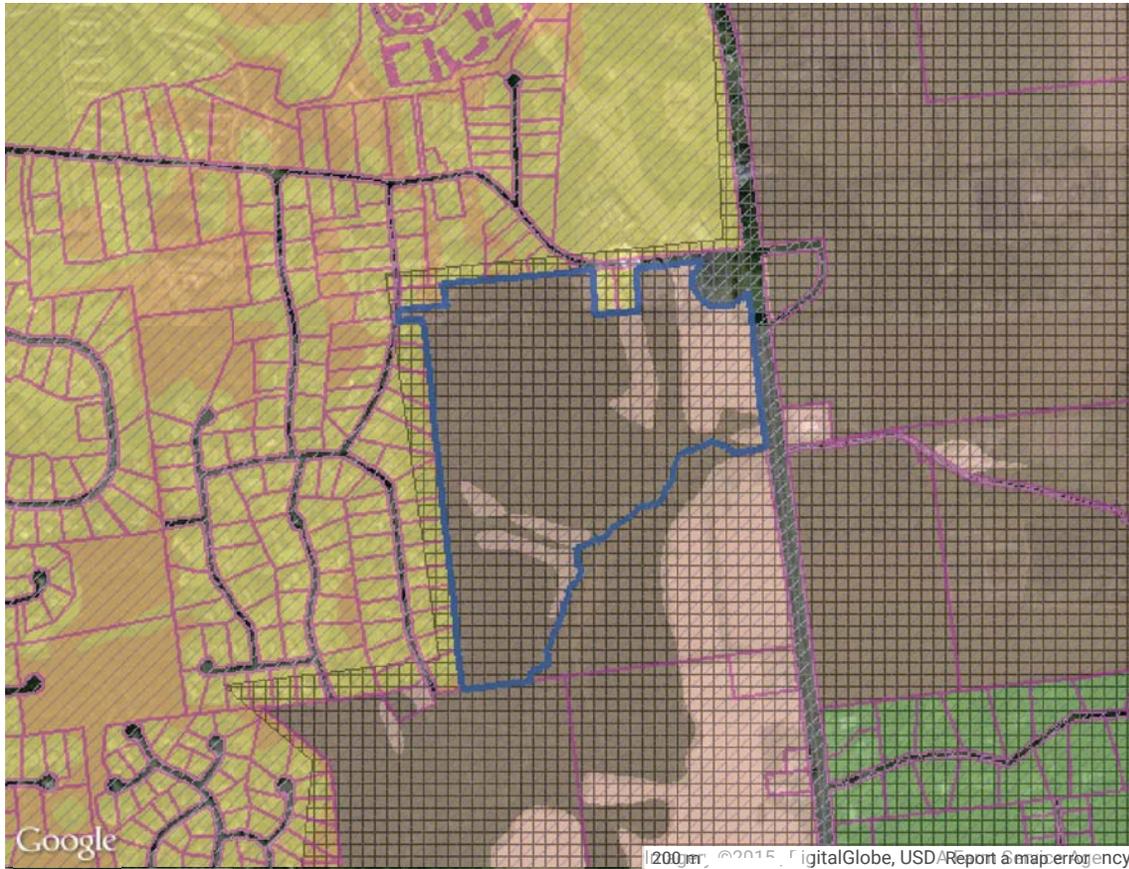
**Objective 2I1b:** The expansion or creation of public water supply systems, public wastewater collection and treatment systems and community on-site treatment facilities in the Preservation Area as approved through a HPAA with waiver pursuant to N.J.A.C. 7:38 and Policy 7G1 shall maximize the protection 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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Agricultural Resource Area: 

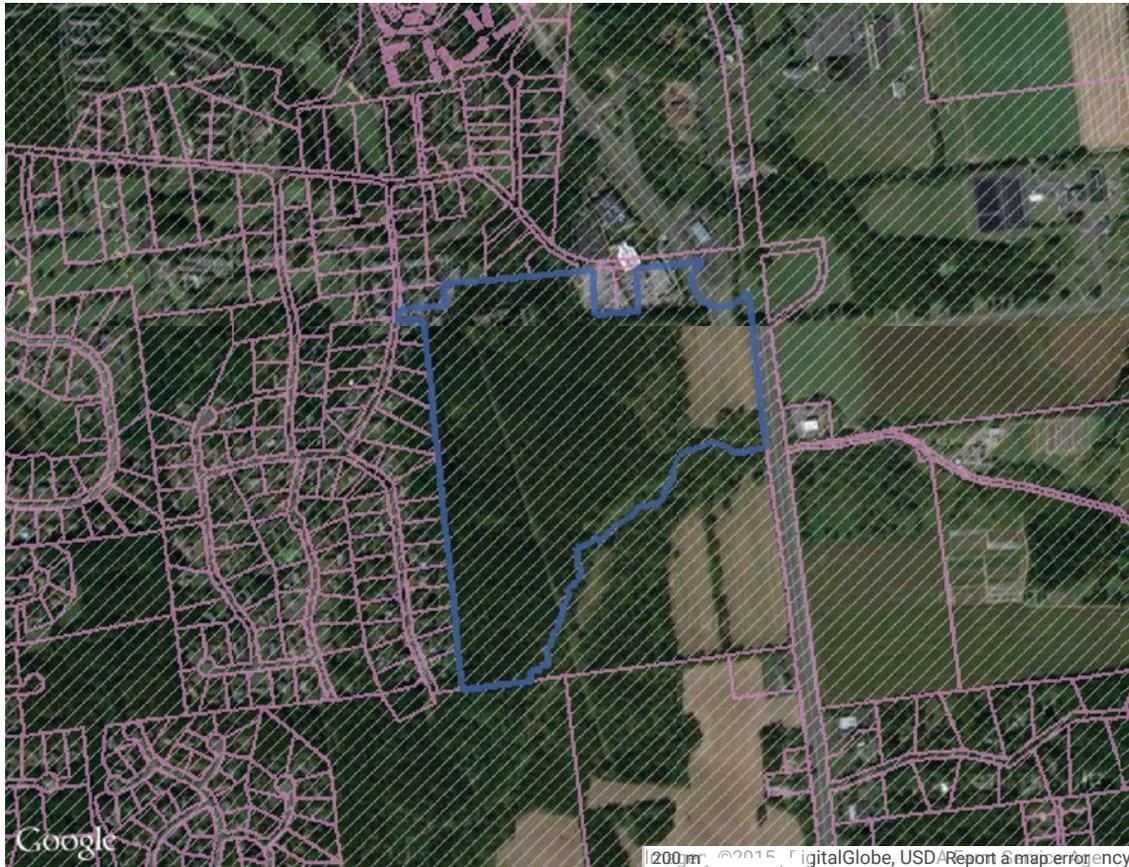
 Protection Zone	 Conservation Zone
 Existing Community Zone	 Lake Community Subzone
 Conservation Environmentally Constrained Subzone	
 Existing Community Environmentally Constrained Subzone	
 Wildlife Management	

Land Use Capability:

Planning Area / Preservation Area:  Planning Area /  Preservation Area

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

**Policy 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.

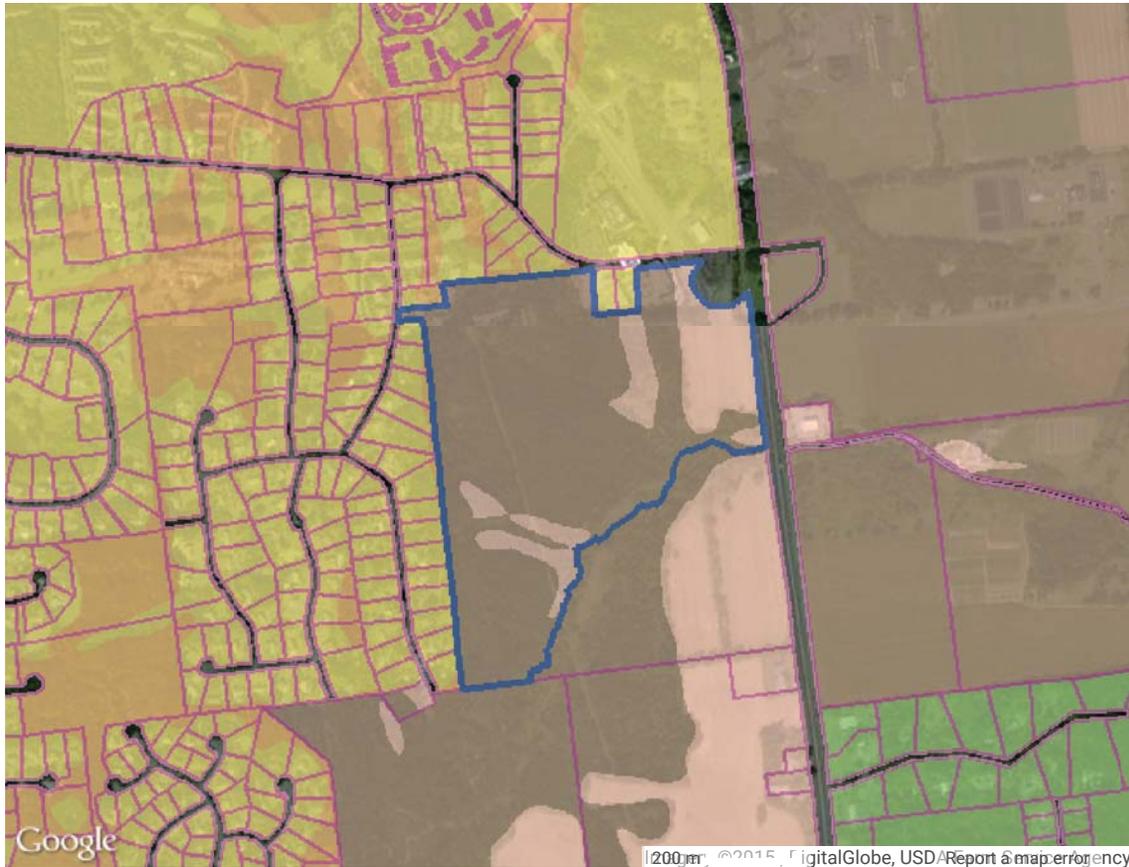


Planning Area / Preservation Area:  Planning Area /  Preservation Area

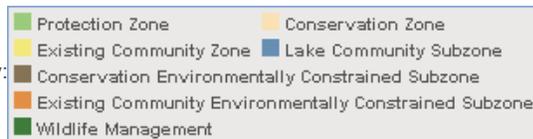
Means lands within the Highlands Region which are not within the Preservation Area.

**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.

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Land Use Capability:

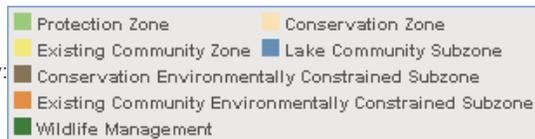
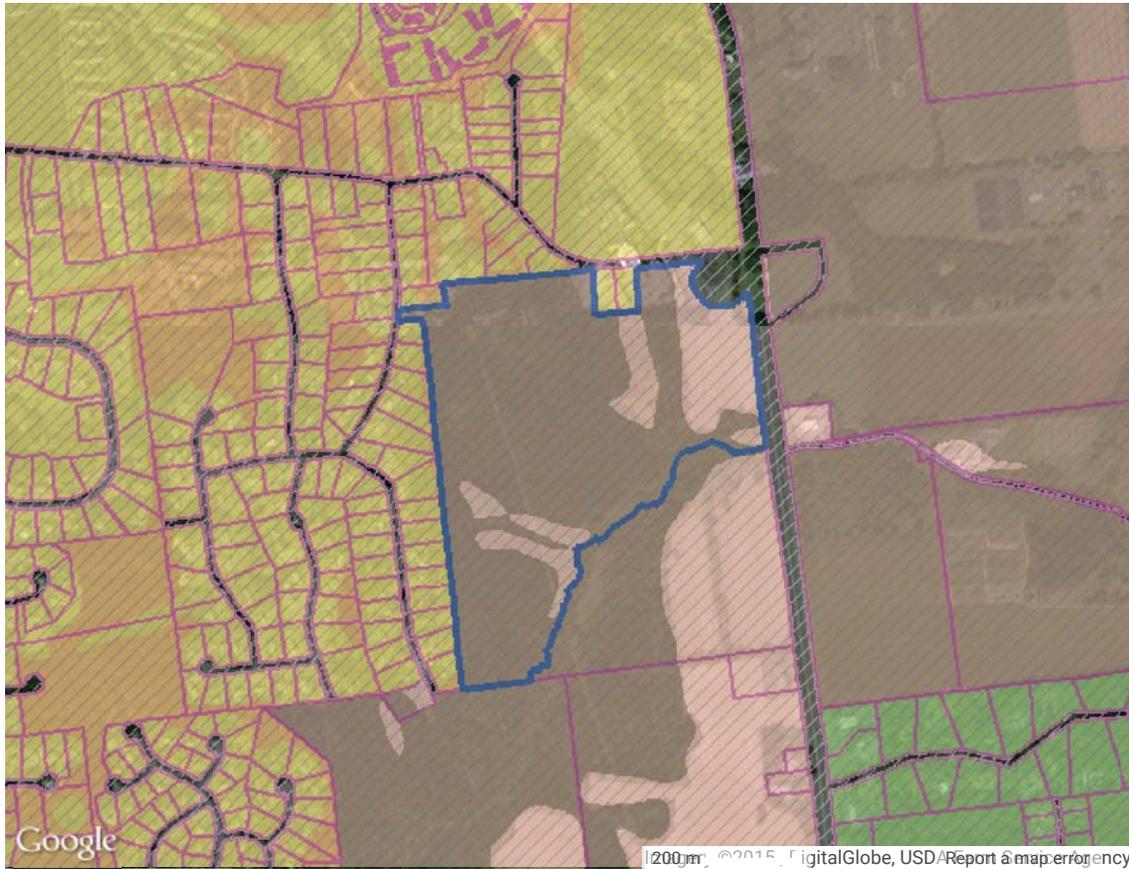


Consists of areas with significant agricultural lands and interspersed with associated woodlands and environmental features.

**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.



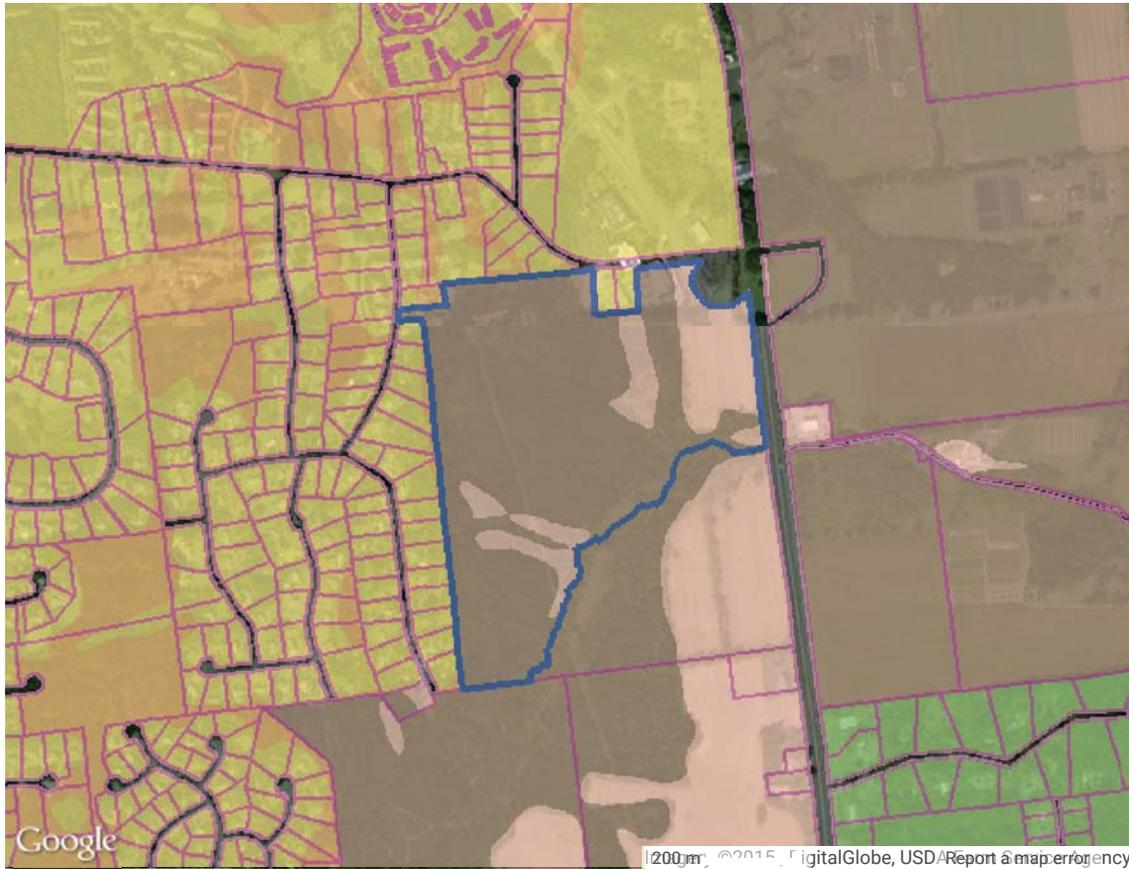
Land Use Capability:

Planning Area / Preservation Area:  Planning Area /  Preservation Area

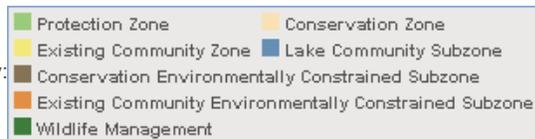
Includes the Conservation Zone within the Planning Area.

**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.

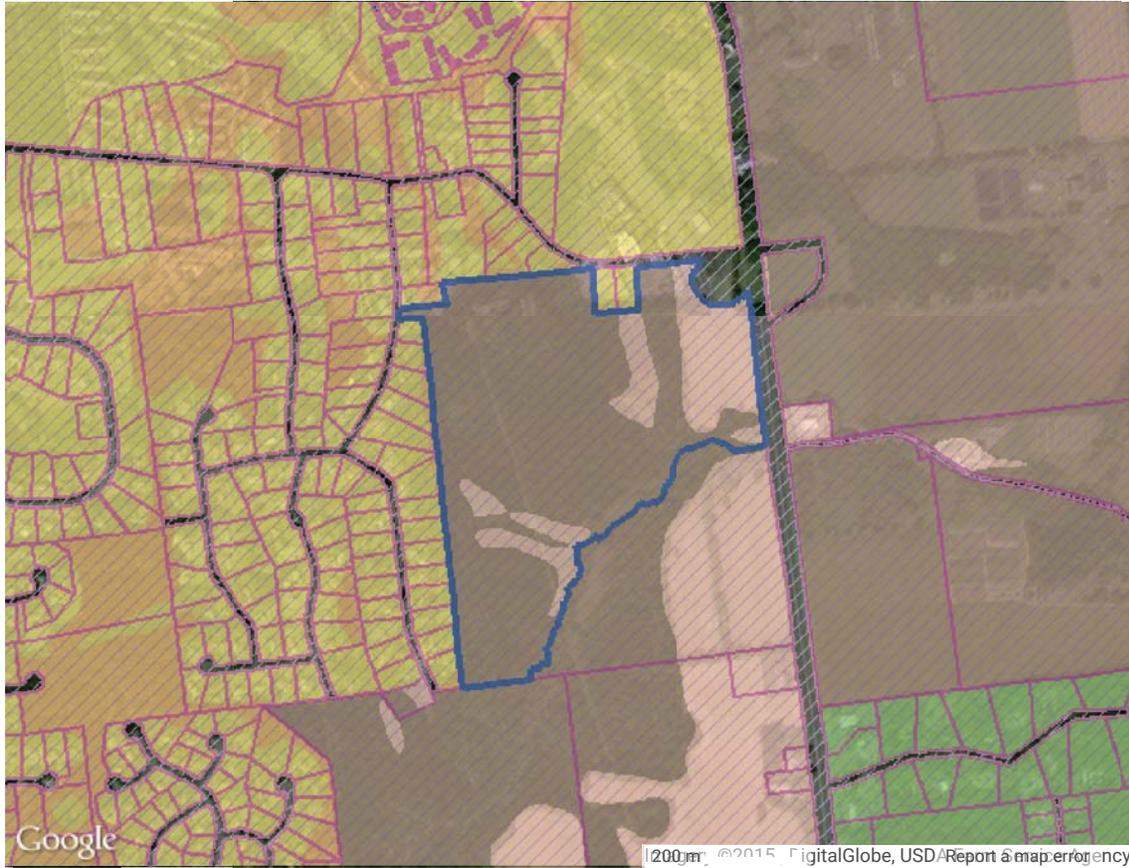


Land Use Capability:



Includes both the Conservation Zone and the Protection Zone.

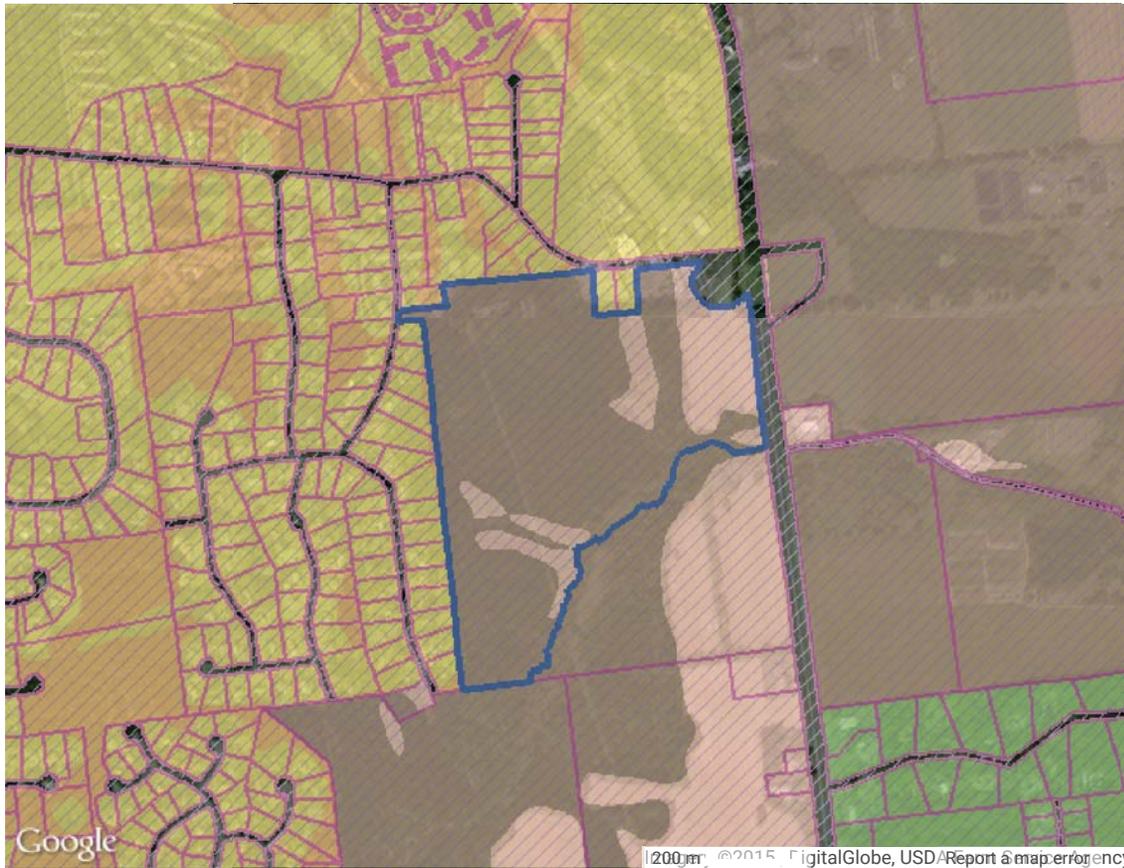
**Objective 2L3f:** Carrying capacity shall be documented through the Land Use Capability Septic System Yield Map as the number of allowable septic systems per Conservation and Protection Zone for each HUC14 subwatershed, taking into account the nitrate target, the HUC14 subwatershed drought ground water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



Planning Area / Preservation Area:  Planning Area /  Preservation Area

Includes the Protection Zone, Conservation Zone, Environmentally Constrained Sub-Zones and the Existing Community 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.



Includes the Protection Zone, Conservation Zone, and the Environmentally 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.

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# Regional Master Plan Consistency Report

3/5/2015

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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

Opacity ▼



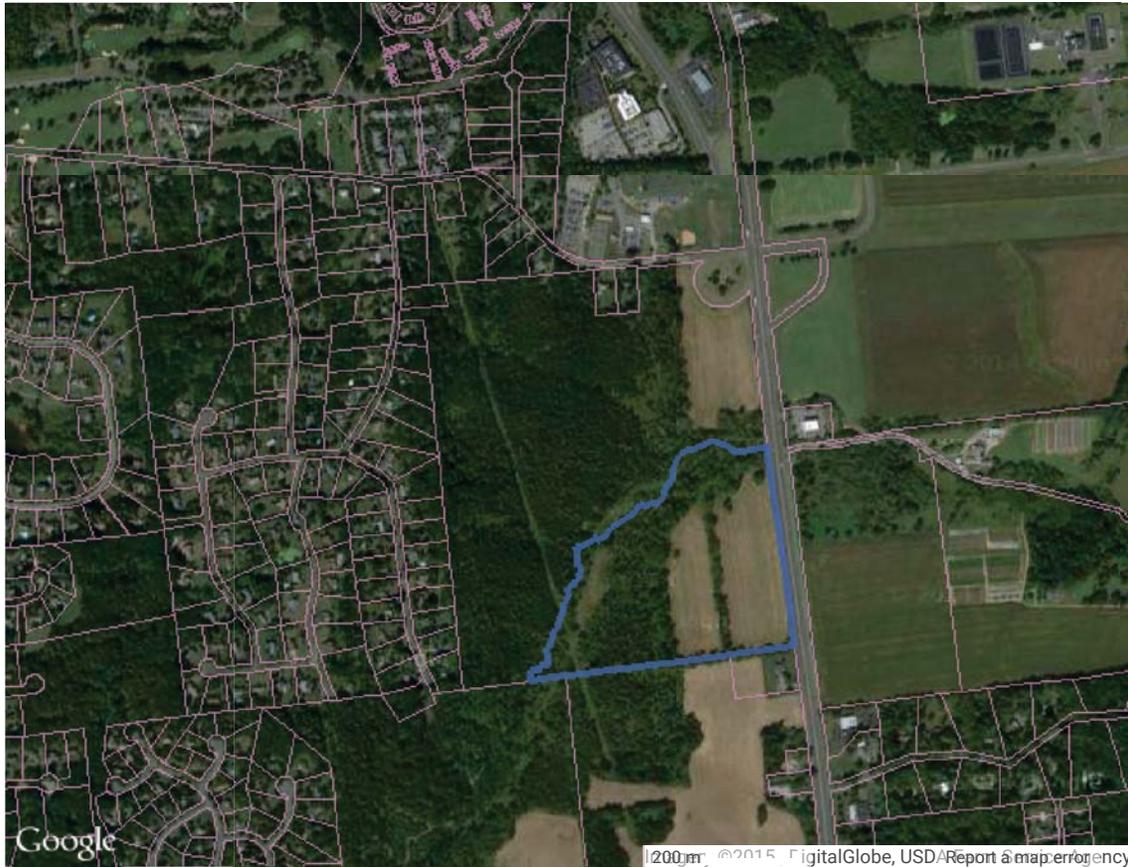
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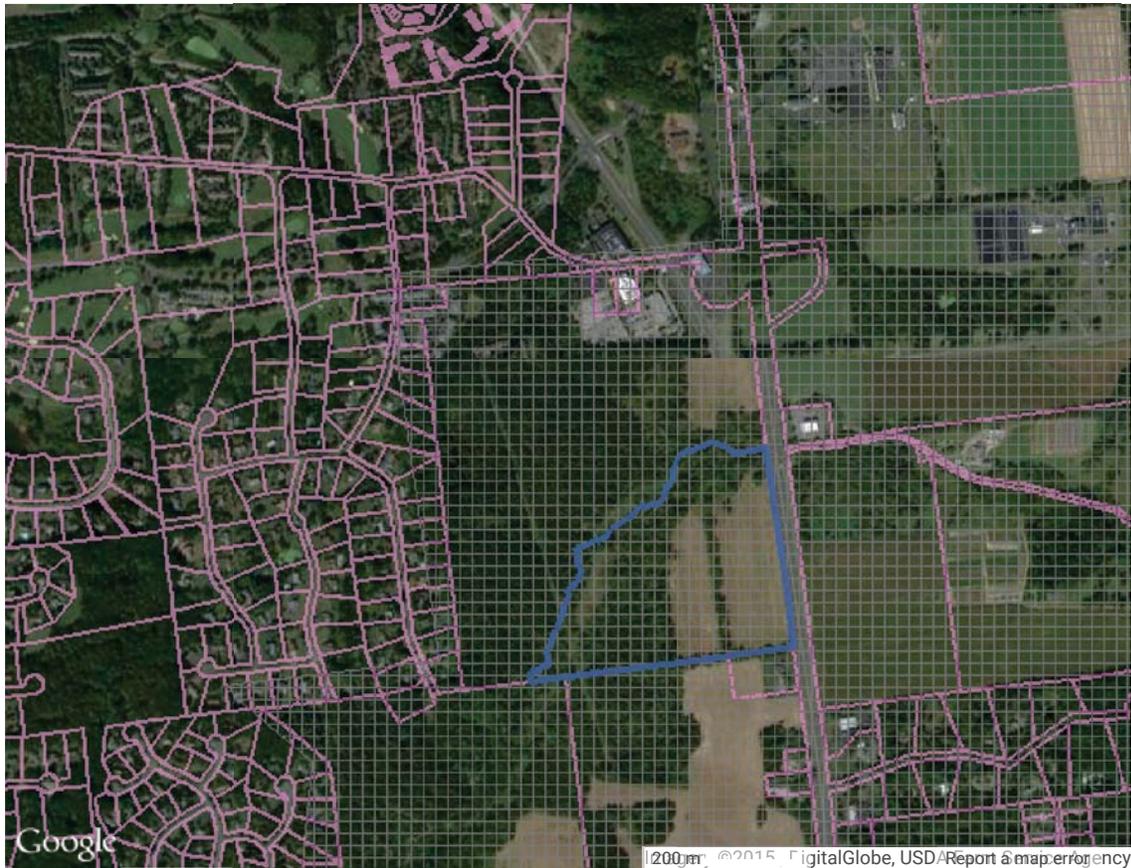
Please consider the environment before printing this report

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.

**Marookian Site (2), Block 82, Lot 4.03, Clinton Township, Hunterdon County**





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 1I3:** 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.

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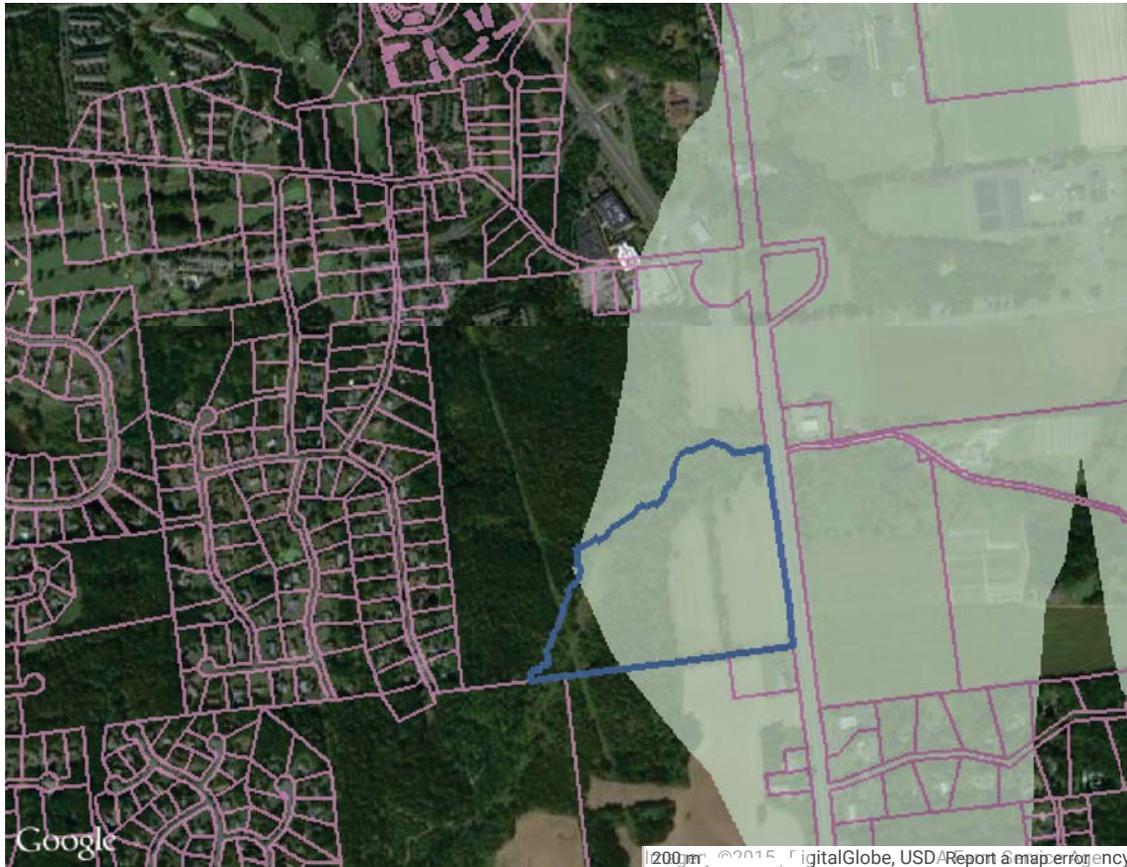
Agricultural Uses: ■

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.

**Policy 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.

**Policy 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.



**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 2I1b:** 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.

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Wellhead Protection Area:  2-Year Tier  5-Year Tier  12-Year Tier

A Wellhead Protection Area is a mapped area around a public water supply well that delineates the horizontal extent of ground water captured by a public water supply well pumping at a specific rate over a specific time. Wellhead Protection Areas consist of three tiers; the ground water within each tier takes a specified period of time to travel to the well: Tier 1 is a two-year time of travel; Tier 2 is equivalent to a five-year time of travel; Tier 3 is equivalent to a twelve-year time of travel. Wellhead Protection Areas are important areas for the protection of ground water quality.

**Policy 2H2:** To develop and implement, through Plan Conformance, local development review and Highlands Project Review, resource protection measures to protect and enhance ground water and water supply resources within Wellhead Protection Areas consistent with the source water assessments for each water supply source.

**Objective 2H4a:** Require site specific and municipal stormwater management plans to address wellhead protection requirements.

**Policy 2H5:** To require that conforming municipalities revise master plans and development regulations to address wellhead protection requirements.

**Objective 2H5b:** Restrict development activities that pose threats to the water quality of public water supply wells.

**Objective 2H5c:** Ensure that development activities and existing land use activities implement best management practices to protect the quality of ground water within Wellhead Protection Areas.

**Objective 2H5d:** Amend Areawide Water Quality Management Plans or Wastewater Management Plans for conforming municipalities and counties to ensure that any activity associated with the proposed service area will not adversely affect a Wellhead Protection Area.

**Objective 2G6c:** Require conforming municipal and county master plans and development regulations to incorporate relevant TMDLs, additional water quality protection measures and wellhead protection for public water supply wells and nitrate standards as development standards.

**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.

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Forest Outside of Forest Resource Area: ■

■ Protection Zone	■ Conservation Zone
■ Existing Community Zone	■ Lake Community Subzone
■ Conservation Environmentally Constrained Subzone	■ Existing Community Environmentally Constrained Subzone
■ Wildlife Management	

Land Use Capability:

Planning Area / Preservation Area: ■ Planning Area / ■ Preservation Area

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 lands 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.

**Policy 1C3:** 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.

**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.

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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.

**Policy 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 2I1b:** 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.

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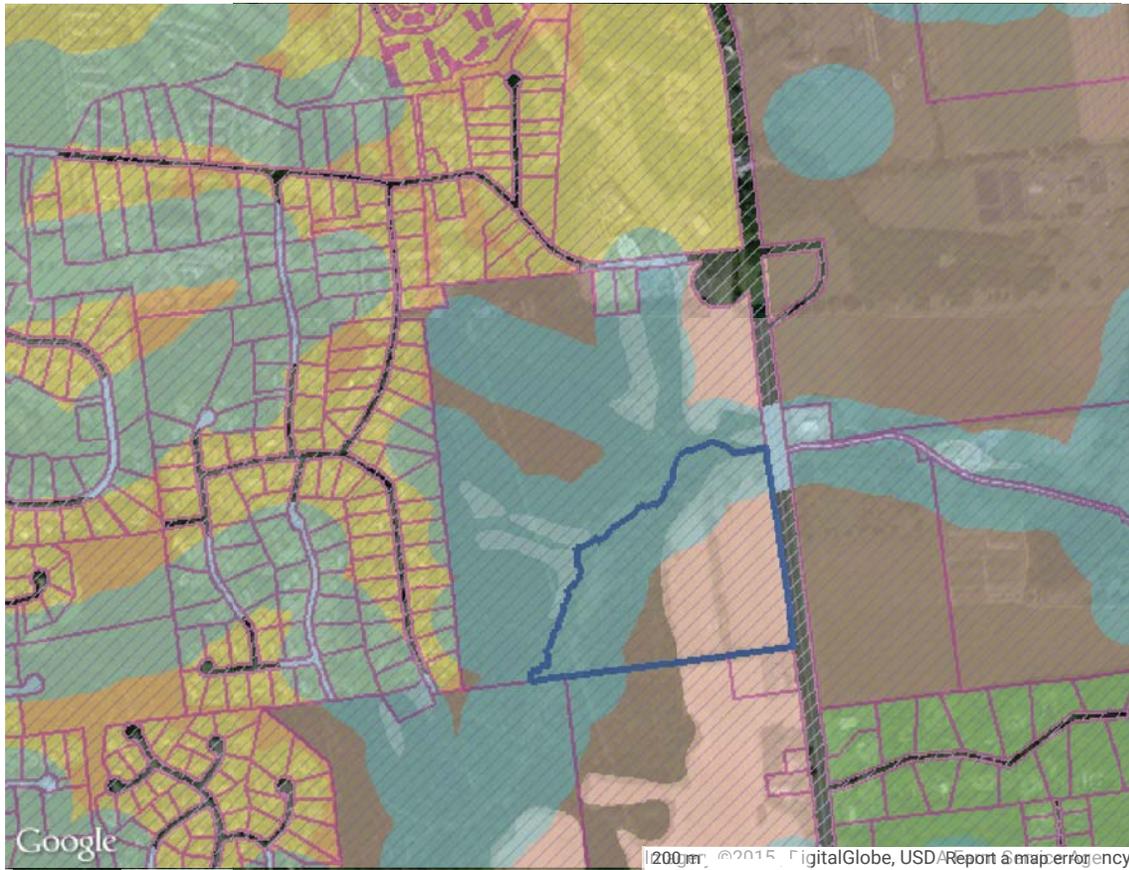
Open Water Protection Area: ■

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.”

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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 2I1b:** 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.

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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 2I1b:** 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.

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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.

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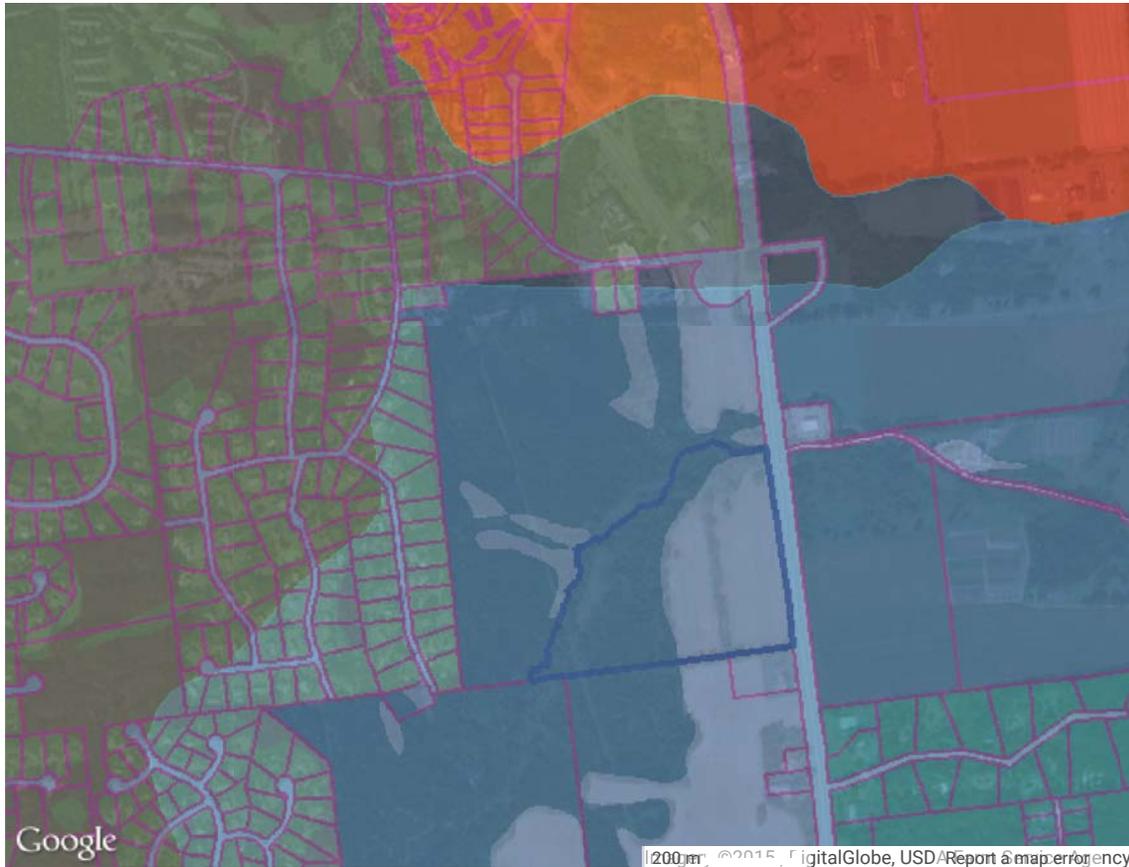
Moderately Constrained Slopes: ■  
Severely Constrained Slopes: ■

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.

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Land Use Capability:

Protection Zone	Conservation Zone
Existing Community Zone	Lake Community Subzone
Conservation Environmentally Constrained Subzone	
Existing Community Environmentally Constrained Subzone	
Wildlife Management	

Net Water Availability by HUC14:

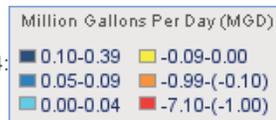
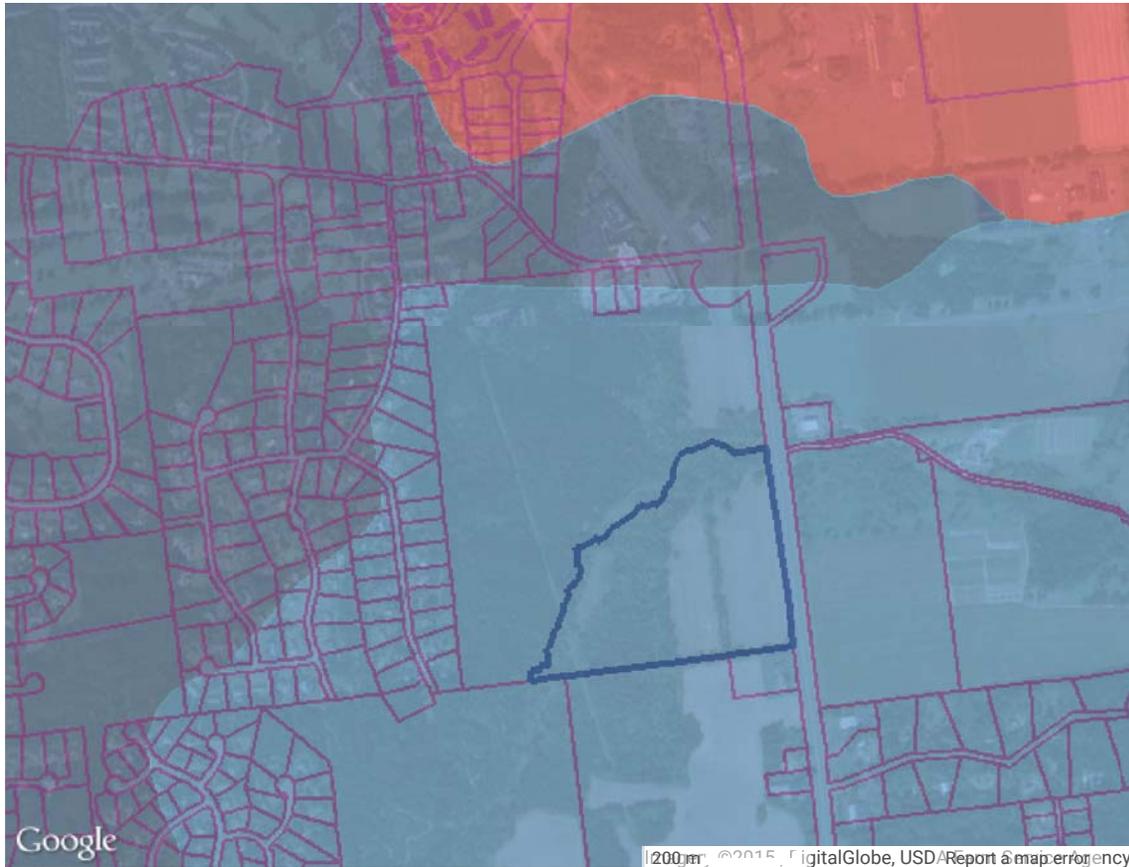
0.10-0.39	-0.09-0.00
0.05-0.09	-0.99-(-0.10)
0.00-0.04	-7.10-(-1.00)

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 by HUC14:

Net Water Availability is calculated for each HUC14 subwatershed by deducting consumptive and depletive water uses from Ground Water Availability. The Regional Master Plan incorporates 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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Wellhead Protection Area:  2-Year Tier  5-Year Tier  12-Year Tier

Identifies the Tier 2 portion of a Wellhead Protection Area. The calculated time for ground water to travel to the well from this zone is five years. Tier 2 also includes the land area within Tier 1.

**Objective 2H2b:** Prohibit land uses that have a significant potential to result in the discharge of persistent organic or toxic 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 designated Tier 2 Wellhead Protection Area, such that they may degrade or contribute to the degradation of ground water quality.

**Objective 2H2c:** Require that land uses that have a significant potential to result in major discharges of persistent organic or toxic 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 designated Tier 3 Wellhead Protection 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.

**Objective 2H4b:** Encourage stormwater reuse for non-agricultural irrigation and other non-potable water purposes to minimize the volume of stormwater discharges (other than from clean sources) within a Tier 1 or Tier 2 Wellhead Protection Area.

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Wellhead Protection Area:  2-Year Tier  5-Year Tier  12-Year Tier

Identifies the Tier 3 portion of a Wellhead Protection Area. The calculated time for ground water to travel to the well from this zone is twelve years. Tier 3 also includes the land area within Tiers 2 and 1.

**Objective 2H2c:** Require that land uses that have a significant potential to result in major discharges of persistent organic or toxic 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 designated Tier 3 Wellhead Protection 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.

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Agricultural Uses: ■

Agricultural Resource Area: ■

Includes all Agricultural Uses within the Agricultural Resource Area.

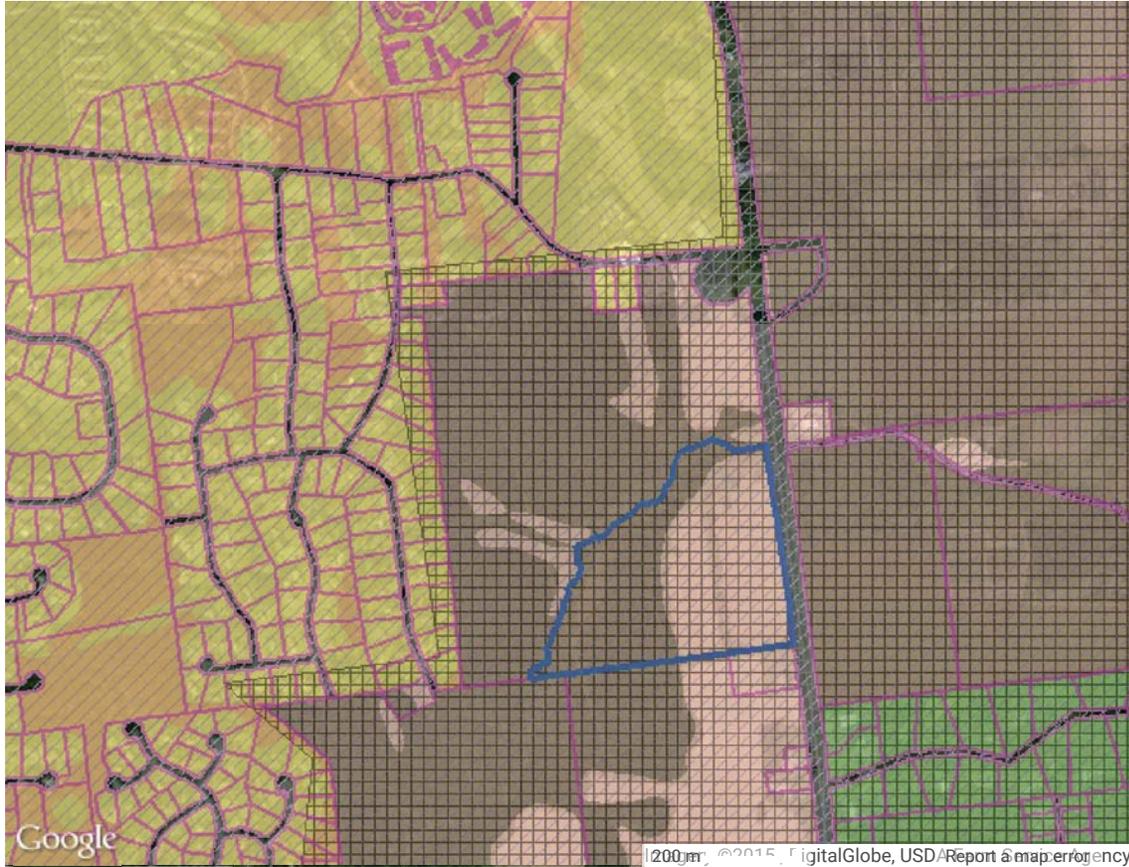
**Objective 2I1b:** The expansion or creation of public water supply systems, public wastewater collection and treatment systems and community on-site treatment facilities in the Preservation Area as approved through a HPAA with waiver pursuant to N.J.A.C. 7:38 and Policy 7G1 shall maximize the protection 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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Agricultural Resource Area: 

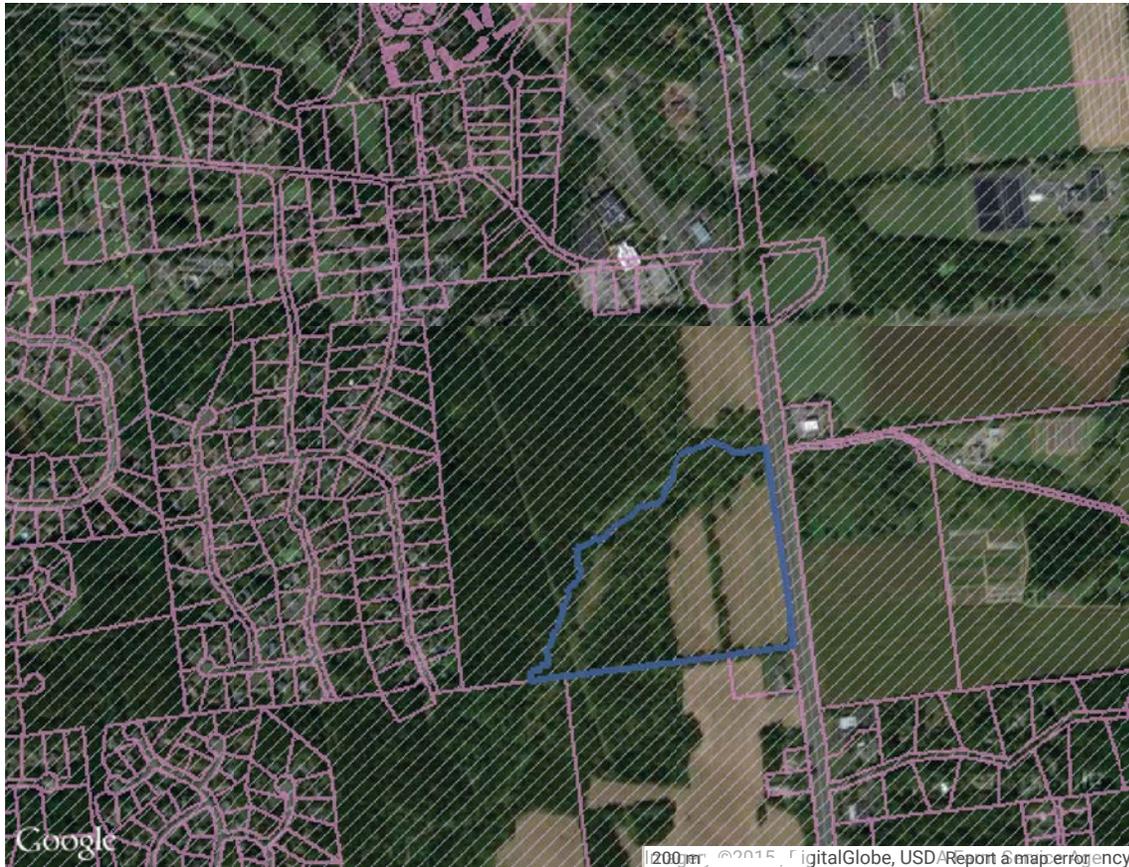
 Protection Zone	 Conservation Zone
 Existing Community Zone	 Lake Community Subzone
 Conservation Environmentally Constrained Subzone	
 Existing Community Environmentally Constrained Subzone	
 Wildlife Management	

Land Use Capability:

Planning Area / Preservation Area:  Planning Area /  Preservation Area

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

**Policy 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.

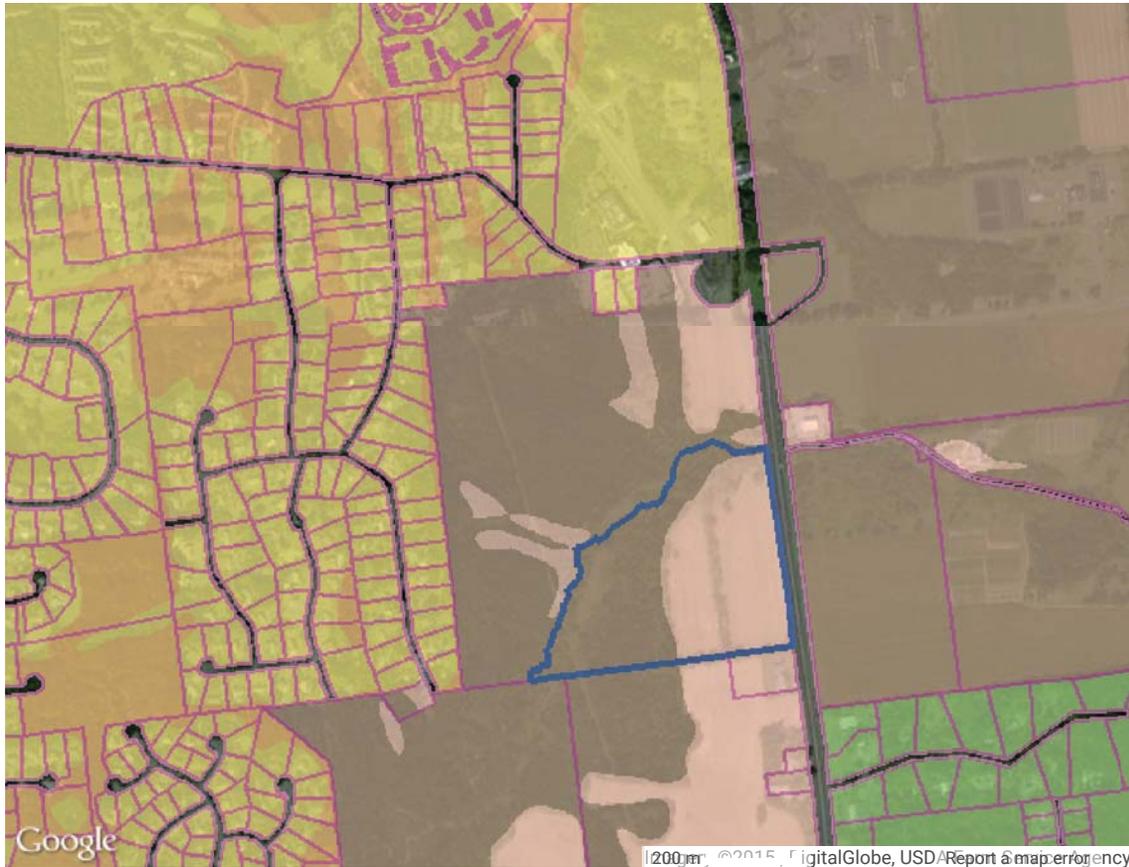


Planning Area / Preservation Area:  Planning Area /  Preservation Area

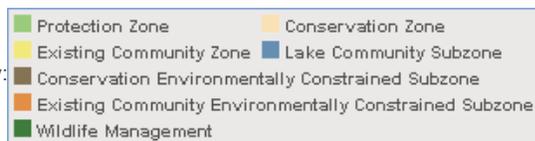
Means lands within the Highlands Region which are not within the Preservation Area.

**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.

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Land Use Capability:

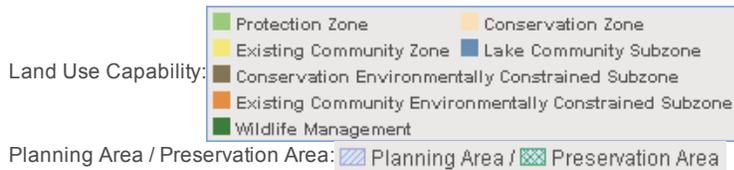
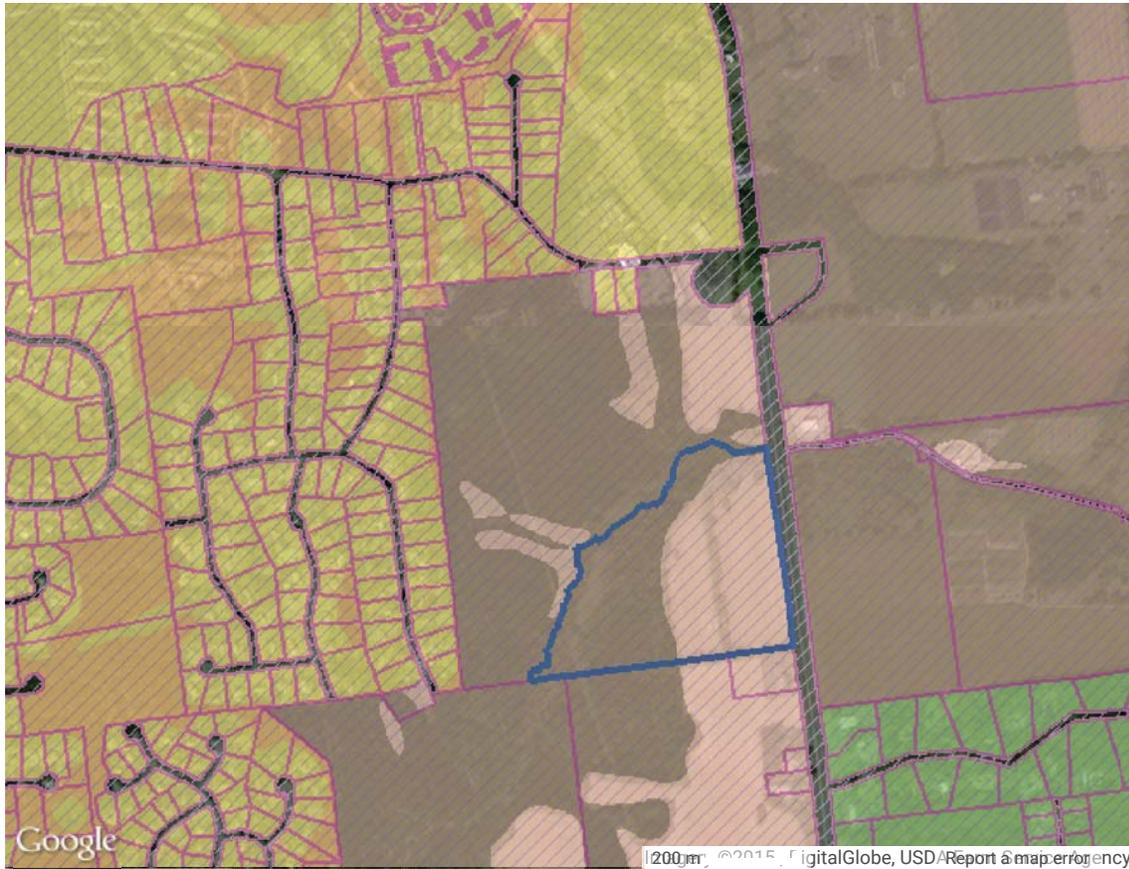


Consists of areas with significant agricultural lands and interspersed with associated woodlands and environmental features.

**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.

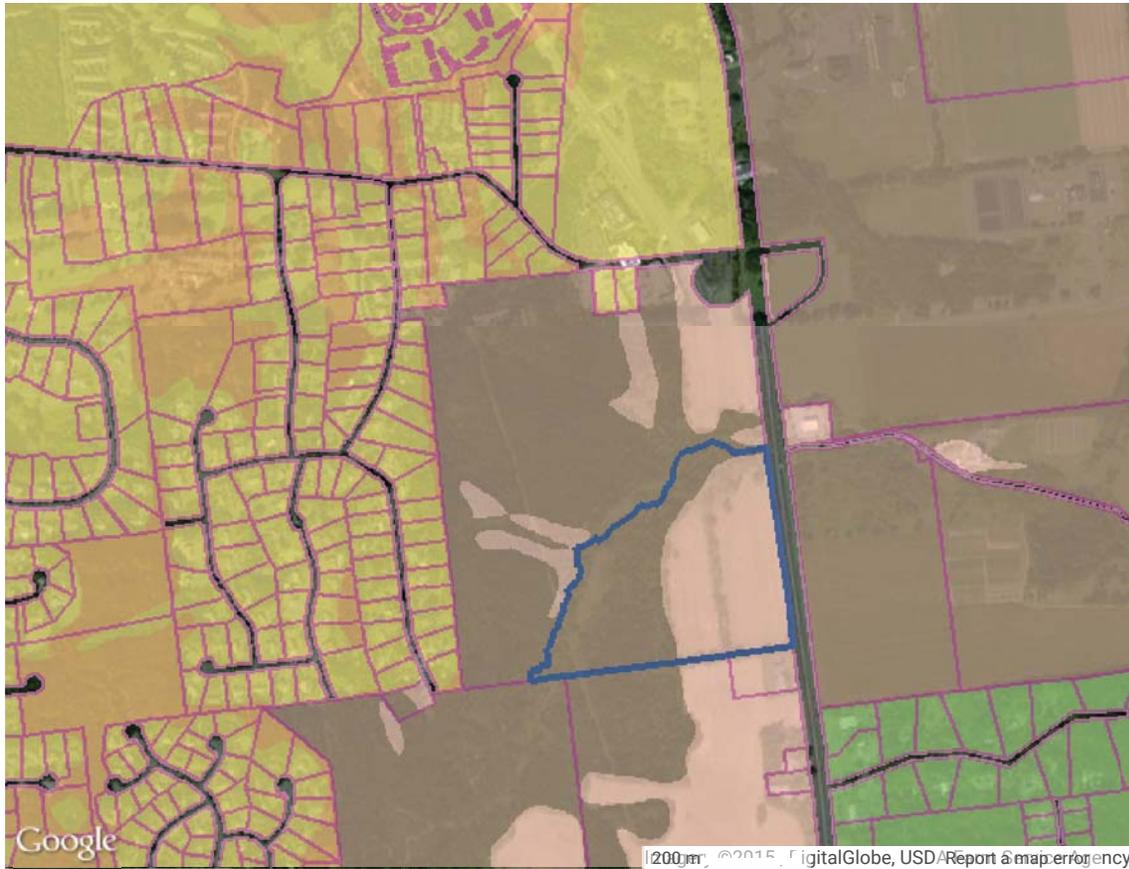
**Objective 6D3b:** Centers in the Conservation Zone, potentially including clustered development, shall be at densities appropriate to the Zone, the community character, the State Development and Redevelopment Plan, and the use of septic systems or community wastewater systems.



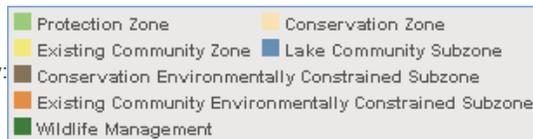
Includes the Conservation Zone within the Planning Area.

**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.



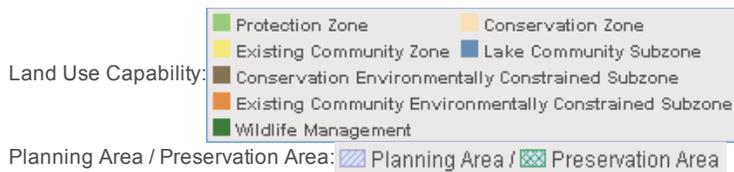
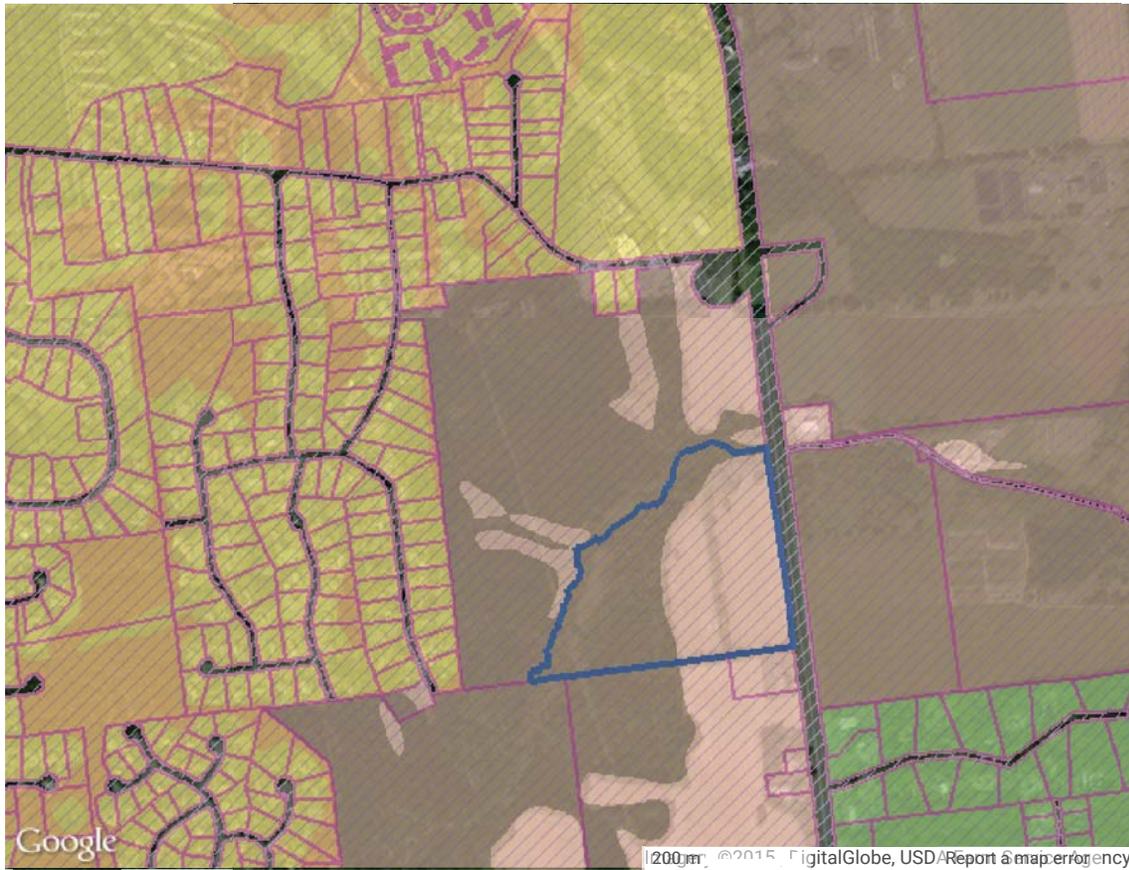
Land Use Capability:



Includes both the Conservation Zone and the Protection Zone.

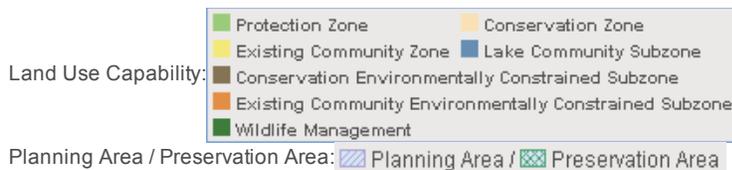
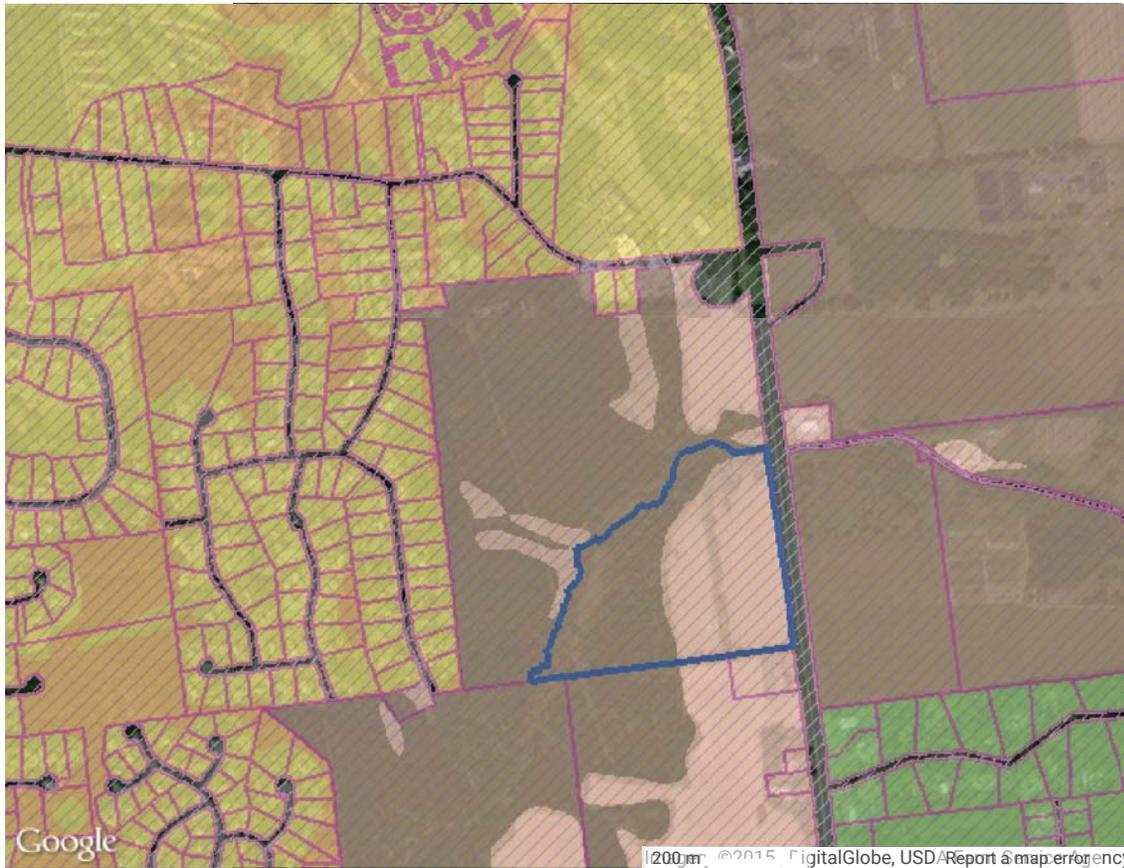
**Objective 2L3f:** Carrying capacity shall be documented through the Land Use Capability Septic System Yield Map as the number of allowable septic systems per Conservation and Protection Zone for each HUC14 subwatershed, taking into account the nitrate target, the HUC14 subwatershed drought ground water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

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Includes the Protection Zone, Conservation Zone, Environmentally Constrained Sub-Zones and the Existing Community 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.



Includes the Protection Zone, Conservation Zone, and the Environmentally 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.

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## A-13 Highlands Module 2 Analysis







**CHRIS CHRISTIE**  
*Governor*

**KIM GUADAGNO**  
*Lt. Governor*

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Highlands Water Protection and Planning Council  
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**JIM RILEE**  
*Chairman*

**MARGARET NORDSTROM**  
*Executive Director*

November 13, 2015

The Honorable John J. Higgins  
Township of Clinton  
1225 Rt 31 South, Suite 411  
Lebanon, NJ 08833

**Subject: Module 2 and 7 Update Program  
Plan Conformance Grant #09-033-011-1006**

Dear Mayor Higgins:

Thank you for providing Clinton Township's Module 2 Update and the Module 7 Implementation Plan and Schedule (IPS) draft response. I am pleased to advise that the Module 2 Update geodatabase (GDB) and draft Module 7 IPS have been reviewed for completeness by the Highlands Council. Enclosed you will find a CD with the Module 2 Update data. The CD contains the Module 2 Update geodatabase (.gdb) for the verified conforming portion of the municipality that was reviewed by the Highlands Council for completeness and the Module 2 Update Plan Conformance Developable Lands Summary Report (.xls).

The Module 2 Update Developable Lands Summary Report indicates that there are potentially six (6) developable parcels in the Preservation Area, as identified by the Township, none of which are large enough in acreage to comply with the NJDEP Preservation Area septic density regulations (N.J.A.C. 7:38 et seq). The municipality may use this information to assist in the preparation of the Module 3 Update to the Housing Element and Fair Share Plan.

The Report also indicates that there are 147 potentially developable parcels in the Planning Area, as identified by the Township. Of these, 19 parcels are identified as being located in either an existing or future wastewater utility area. The remaining 128 parcels are not identified as being located within a wastewater utility area. Based on their acreage, forty-four (44) parcels may be large enough in acreage to comply with the RMP Land Use Capability Map septic density allowance. The Module 2 Update Plan Conformance Developable Lands Summary Report (.xls) for the Township also includes the revised Planning Area parcel information that was provided by the Township. The municipality may use this information to assist in the preparation of the Module 3 Update to its Housing Element and Fair Share Plan.

With this submission, the Module 2 Update component of the Module 2, 3 and 7 Update scope of work has been completed. The municipality may now submit corresponding invoices for the work completed under the approved scope of work for the Module 2 Update. The not-to-exceed dollar amount available for reimbursement is \$10,000. A payment voucher will be issued by the Highlands Council only after a review of the submitted invoices and a determination that they are reasonable and administratively complete. Please note that the municipal verified Module 2 Update geodatabase and Developable Lands Summary Report will be posted to the Highlands Council website. The submitted draft of the Module 7 Update to the Implementation Plan and Schedule appears to appropriately address upcoming Plan Conformance implementation tasks. Please note that it should only be invoiced upon final submission with the Module 3 Housing Element and Fair Share Plan deliverable.

Thank you for your dedication to the Plan Conformance approval and implementation process. We are pleased to acknowledge the excellent work product provided by the municipality thus far, and look forward to receipt of the grant component. Please do not hesitate to contact me directly (telephone extension 101, e-mail address [margaret.nordstrom@highlands.nj.gov](mailto:margaret.nordstrom@highlands.nj.gov)) should you or your elected and appointed officials have questions or require assistance. Your Highlands Council Staff Liaison Corey Piasecki, Regional Planner (telephone ext. 129, e-mail address [corey.piasecki@highlands.nj.gov](mailto:corey.piasecki@highlands.nj.gov)), will continue to assist your professionals.

Sincerely,



Margaret Nordstrom  
Executive Director

Enclosures: Module 2 Update Geodatabase (.gdb)  
Module 2 Update PC Developable Lands Summary Sheet (.xls)

c: Andrea Malcolm, Lead Municipal Professional w/CD  
Service List

Marvin Joss  
Administrator  
1225 Rt 31 South, Suite 411  
Lebanon, NJ 08833

Kevin Cimei  
Planning Board Chair  
1225 Rt 31 South, Suite 411  
Lebanon, NJ 08833

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John J. Higgins  
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1225 Rt 31 South, Suite 411  
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Lebanon, NJ 08833

Jonathan Drill  
Planning Board Attorney  
Stickel, Koenig, Sullivan & Drill, LLC  
571 Pompton Avenue  
Cedar Grove, NJ 07009



FieldName	Description
PAMS_PIN	Parcel ID
PIN	Unique Parcel Identification Number
SSN	State Standard Numeric
MUNICIPALITY	Municipal Name
CONFORMING_STATUS	Plan Conformance Status
BLOCK	Tax Block Number
LOT	Tax Lot Number
SQ_FT	Parcel Size in square feet.
ACRES	Parcel size in acres.
COUNTY	County Name
Region_Pres_Acres	Area of the parcel in Preservation Area in acres.
Region_Plan_Acres	Area of the parcel in Planning Area in acres.
PARC_STAT_DEV_STATUS	Municipal determined parcel development status.
PARC_STAT_IF_DEVELOPABLE	Details for a parcels development status that was changed from Not Developable to Developable by the municipality.
PARC_STAT_IF_DEV_OVER_REDEV	Parcel that has been determined by the municipality to be a potential oversized lot or subject to known redevelopment.
PARC_STAT_IF_DEV_OVER_REDEV_AC	Developable area in acres for Oversized Lots and Redevelopable parcels.
PARC_STAT_IF_NOT_DEVELOPABLE	Municipal clarification regarding a change from Developable to Not Developable the municipal reviewer must identify the status has changed.
PARC_STAT_DATE_OF_EDIT	Date of Municipal review/edit.
PARC_STAT_MUNI_VERIFY	Name of the approved municipal verifier for the project.
PARC_STAT_COMMENTS	Additional comments regarding edits or parcel information.
WW_UTILITY_SERV_AREA_PERMIT	Wastewater Facility Permit (NJPDES) identification for provider.
WW_UTILITY_EXISTING_AREA_SERVED	Indicates whether or not the parcel is actively being served by a wastewater service provider (physically connected and either contributing or capable of contributing flow to the system). Physical structures exist on the site.
WW_UTILITY_SERV_AREA_NO_CONNECT	Indicates the parcel is within a utility service area but not, in fact, being actively served (physically connected, contributing to the system, and/or receiving a bill). Physical structures are typically not on site.
PW_UTILITY_SYSTEM_PERMIT	Public Water Facility (PWSID) identification for provider.
PW_UTILITY_EXISTING_AREA_SERVED	Indicates whether or not the parcel is actively being served by a potable water service provider (physically connected and either contributing or capable of contributing flow to the system). Physical structures exist on the site.
PW_UTILITY_SERV_AREA_NO_CONNECT	Indicates the parcel is within a potable water utility service area but not, in fact, being actively served (physically connected, contributing to the system, and/or receiving a bill). Physical structures typically not on site.
RMP_BO_ENV_CONSTR_ACRES	Portion of parcel in acres that is environmentally constrained based on the 2008 RMP Build-out Environmental Constrained lands.
RMP_BO_ENV_CONSTR_SQFT	Portion of the parcel in square feet that is environmentally constrained based on the 2008 RMP Build-out Environmental Constrained lands.
RMP_BO_DEVELOPABLE_ACRES	Portion of the parcel that may be appropriate for future development in acres.
RMP_BO_DEVELOPABLE_SQFT	Portion of the parcel that may be appropriate for future development in sq ft.
Forest_NonForest_Yield	Septic Density based on NJDEP 7:38 Septic Density Rules; provided for all parcels for the full extent of the parcel; oversized or redevelopable parcels should be analyzed for septic yield separately this information is for informational purpose only.
CZ_CECZ_Acres	RMP Conservation Zone/Conservation Zone Environmentally Constrained Acres
ECZ_ECECZ_LCZ_Acres	RMP Existing Community Zone/Environmentally Constrained Existing Community Zone Acres
PZ_WMA_Acres	RMP Protection Zone/Wildlife Management Area Acres
CZ_CECZ_	Municipal specific Conservation Zone/Conservation Zone Environmentally Constrained RMP Septic Yield
ECZ_ECECZ_LCZ_	Municipal specific Existing Community Zone/Environmentally Constrained Existing Community Zone RMP Septic Yield
PZ_WMA_	Municipal specific Protection Zone/Wildlife Management Area RMP Septic Yield
LUC_2008_RMP_Yield	Land Use Capability Map (LUCM) Zone 2008 RMP Septic Yield Total based on municipal specific LUCM Zone values; provided for all parcels for the full extent of the parcel; oversized or redevelopable parcels should be analyzed for septic yield separately this information is for informational purpose only.
<b>Tab Name</b>	
Muni_Plan_Rev_2015	Xcel spreadsheet tab that includes planning area parcels that have been spatially revised by the municipality based on the Module 2 Update Program
Muni_Pres_Rev_2015	Xcel spreadsheet tab that includes preservation area parcels that have been spatially revised by the municipality based on the Module 2 Update Program



MUNICIPALITY	BLOCK	LOT	ACRES	Region	Plan	Acres	DEV STATUS	PARC STAT	IF	WW UTILITY EXISTING	AREA SERVED	REA_NO_CONNECT	PW UTILITY EXISTING	AREA SERVED	REA_NO_CONNECT	PW UTILITY SERV A	AREA SERVED	REA_NO_CONNECT	ECZ ECECZ LCZ Acres	PZ WMA Acres	PZ WMA Acres	PZ WMA Acres	ECZ ECECZ LCZ 9	LUC	2008 RMP	Yield
Clinton Township	80	2.10	5.994504895	Region	Plan	Acres	Developable	Vacant	Developable	No	No	No	No	No	No	No	No	No	0.896174423	5.096632695	0.203945308	0.099574636				0
Clinton Township	80	2	26.95929955	Region	Plan	Acres	Developable	Developable w/ Fin	Developable	No	No	No	No	No	No	No	No	No	0.395023572	26.9593006	1.06256624	0.043891508				1
Clinton Township	80	2.01	10.34176226	Region	Plan	Acres	Developable	Vacant	Developable	No	No	No	No	No	No	No	No	No	0.224276178	10.11750694	0.404700237	0.024919798				0







## A-14 Proposed and Completed Units, Clinton Township





**HUNTERDON****CALIFON BORO**

Project / Program	Mechanism	New Construction	Completed New	Rehab	Completed Rehab
Accessory Apartment Program	Accessory apartments	5			
ARC of Hunterdon	Supp/Spec Needs Hsg	6			
Norwescap	Supp/Spec Needs Hsg	5			
Rehab Program	Rehab			3	
Tiger and/or Wade Properties	New Construction - 100% Afford	3			
Unmet Need	Unmet Need				
		<b>19</b>		<b>3</b>	

**HUNTERDON****CLINTON TOWN**

Project / Program	Mechanism	New Construction	Completed New	Rehab	Completed Rehab
Accessory Apartment Program	Accessory apartments	7			
Alton Place	Inclusionary Development	44	44		
ARC of Hunterdon County	Supp/Spec Needs Hsg				
Clinton Garden Apartments	Inclusionary Development	2			
Moebus Tract	Inclusionary Development	14			
NAMI House	Supp/Spec Needs Hsg	4	4		
Rental Market to Affordable Program	Market to Affordable	4			
Twin Ponds at Clinton	Inclusionary Development	12			
		<b>87</b>	<b>48</b>		

**HUNTERDON****CLINTON TWP**

Project / Program	Mechanism	New Construction	Completed New	Rehab	Completed Rehab
Fox Seals	New Construction - 100% Afford	14			
Headley Farm Group Home	Supp/Spec Needs Hsg	6			
Longview Manor Group Home	Supp/Spec Needs Hsg	4			
Mews at Annandale	Inclusionary Development	35	35		
Rehab Program	Rehab			16	
Wayside Lane	Supp/Spec Needs Hsg	5	5		
West Main Street	New Construction - 100% Afford	3	3		
Windy Acres - family and senior	New Construction - 100% Afford	143			
Windy Acres - special needs	Supp/Spec Needs Hsg	7			
		<b>217</b>	<b>43</b>	<b>16</b>	

**HUNTERDON****DELAWARE TWP**

Project / Program	Mechanism	New Construction	Completed New	Rehab	Completed Rehab
Accessory Apartment Program	Accessory apartments	10			
Allies Group Home 1	Supp/Spec Needs Hsg	3			
Allies Group Home 2	Supp/Spec Needs Hsg	4			
ARC of Hunterdon County 1	Supp/Spec Needs Hsg	6	6		
ARC of Hunterdon County 2	Supp/Spec Needs Hsg	8			
Delaware Rehab Program	Rehab			8	8
Perimeter Properties	Inclusionary Development	6	6		
Raven Rock	New Construction - 100% Afford	1	1		
Skylands Estates	New Construction - 100% Afford	15			
		<b>53</b>	<b>13</b>	<b>8</b>	<b>8</b>

**HUNTERDON****EAST AMWELL TWP**

Project / Program	Mechanism	New Construction	Completed New	Rehab	Completed Rehab
100% Affordable Program	New Construction - 100% Afford	26			

The projects, programs, and units in this report are based on information provided by each municipality, which is updated on an ongoing basis. Inclusion of an affordable housing program or project on this report does not certify that the units exist and/or meet COAH's criteria for credit.



A-15 Resolution Adopting June 22, 2015 HE&FSP





**CLINTON TOWNSHIP PLANNING BOARD**

**RESOLUTION ADOPTING JUNE 22, 2015 HOUSING PLAN ELEMENT  
& FAIR SHARE PLAN**

**WHEREAS**, upon notice duly provided pursuant to N.J.S.A. 40:55D-13, the Clinton Township Planning Board (the “Board”), held a public hearing, commencing on May 4, 2015 and continuing on June 22, 2015, on a proposed Third Round Housing Plan Element and Fair Share Plan dated June 22, 2015 (the “2015 HPE&FSP”) which would amend the Township’s prior Third Round Housing Plan Element and Fair Share Plan in accordance with In re Adoption of N.J.A.C. 5:96 & 5:97, 221 N.J. 1 (2015); and

**WHEREAS**, upon the conclusion of the public hearing, the Board determined that the 2015 HPE&FSP is consistent with the goals and objectives of the Township Master Plan, will guide the use of lands in the municipality in a manner which protects public health and safety and promotes the general welfare in accordance with N.J.S.A. 40:55D-28, and is designed to achieve and the adoption and implementation of the 2015 HPE&FSP will achieve access to affordable housing to meet present and prospective housing needs in accordance with N.J.S.A. 52:27D-310;

**NOW THEREFORE BE IT RESOLVED**, by motion duly made and seconded, that the Clinton Township Planning Board hereby adopts the 2015 HPE&FSP.

\*\*\*\*\*

The above Resolution was adopted on June 22, 2015 by the following vote of Board members:

<u>Member</u>	<u>Yes</u>	<u>No</u>	<u>Abstain</u>	<u>Absent</u>
CIMEI	X			
D’ALLEINNE	X			
HIGGINS	X			
MULLAY	X			
SCHEICK	X			
KLEINHANS	X			
MARDINI	X			

**ATTEST:** \_\_\_\_\_  
**DENISE FILARDO**  
**Board Secretary**



A-16 Highlands Approval Letter Re: Checklist Ordinance







**CHRIS CHRISTIE**  
*Governor*

**KIM GUADAGNO**  
*Lt. Governor*

## State of New Jersey

Highlands Water Protection and Planning Council  
100 North Road (Route 513)  
Chester, New Jersey 07930-2322  
(908) 879-6737  
(908) 879-4205 (fax)  
[www.nj.gov/njhighlands](http://www.nj.gov/njhighlands)



**JIM RILEE**  
*Chairman*

**MARGARET NORDSTROM**  
*Executive Director*

June 30, 2016

The Honorable John J. Higgins  
Clinton Township  
1225 Route 31 South  
Lebanon, NJ 08833

Subject: Final Adopted Clinton Township's Checklist Ordinance  
Plan Conformance Grant #09-033-011-1006  
Amended Grant Agreement Task 6b

Dear Mayor Higgins:

Thank you for providing Clinton Township's final adopted Checklist Ordinance. On behalf of the Highlands Water Protection and Planning Council (Highlands Council), I am pleased to advise and certify that the adopted Checklist Ordinance is herewith deemed consistent with the Highlands Regional Master Plan (RMP). The adopted document will be posted to the Highlands Council's website as a completed Plan Conformance implementation task.

With this submission, Item 6b of the municipality's Highlands Implementation Plan and Schedule is complete. The submittal fulfills the requirement under the Amended Grant Agreement, Task 6b, and the Final Consistency Review and Recommendations Report, Section D.1(b). The municipality may now submit corresponding invoices for the work completed under Task 6b of the executed Amended Plan Conformance Grant Agreement. The following not-to-exceed dollar amounts are available for reimbursement: \$1,000. A payment voucher will be issued by the Highlands Council only after a review of the submitted invoices and a determination that they are reasonable and administratively complete.

This adopted document is an important component of the municipality's fulfillment of Plan Conformance requirements as set forth under the Highlands Council Resolution of Petition approval. As a reminder, please recall that the "Compliance Component" of the adopted Highlands Council Resolution of Petition Approval requires that all amendments to master plans and development regulations applicable to the development and use of land in the municipality must be submitted to the Highlands Council for review prior to adoption to ensure consistency with the Regional Master Plan. We will provide as expeditious a review as possible, but request submission at least 30 days prior to the date on which such documents are needed, whether for purposes of discussion at a Board or Governing Body meeting, or initiating the formal process of introduction and adoption.

Thank you for your dedication to the Plan Conformance approval and implementation process. We are pleased to acknowledge the excellent work product provided by the municipality thus far, and look

forward to receipt of the next implementation task item. Please do not hesitate to contact me directly (telephone extension 101, e-mail address [margaret.nordstrom@highlands.nj.gov](mailto:margaret.nordstrom@highlands.nj.gov)) should you or your elected and appointed officials have questions or require assistance. Your Highlands Council Staff Liaison Corey Piasecki, Regional Planner (telephone ext. 129, e-mail address [corey.piasecki@highlands.nj.gov](mailto:corey.piasecki@highlands.nj.gov)), will continue to assist your professionals as the implementation phases of Plan Conformance proceed.

Sincerely,



Margaret Nordstrom  
Executive Director



Corey Piasecki  
Highlands Staff Liaison to Clinton Township

- c: Andrea Malcolm, Lead Municipal Professional  
Kevin Cimei, Planning Board Chairperson  
Marvin Joss, Designated Municipal Plan Conformance Contact  
Marie Pardo, Municipal Grant Manager (CFO/Treasurer)

A-17 Highlands Approval Letter Re: Exemption Ordinance







**CHRIS CHRISTIE**  
*Governor*

**KIM GUADAGNO**  
*Lt. Governor*

## State of New Jersey

Highlands Water Protection and Planning Council  
100 North Road (Route 513)  
Chester, New Jersey 07930-2322  
(908) 879-6737  
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**JIM RILEE**  
*Chairman*

**MARGARET NORDSTROM**  
*Executive Director*

June 30, 2016

The Honorable John J. Higgins  
Township of Clinton  
1225 Route 31 South  
Lebanon, NJ 08833

Subject: Certification of Highlands Exemption Ordinance  
Plan Conformance Grant #09-033-011-1006  
Amended Grant Agreement Task 18a

Dear Mayor Higgins:

I am pleased to inform you that your municipality is hereby authorized to issue Highlands Act Exemptions in accordance with the "Memorandum of Understanding Between the Highlands Water Protection and Planning Council and the New Jersey Department of Environmental Protection Regarding the Municipal Issuance of Certain Exemption Determinations" (MOU), dated July 19, 2012. The Highlands Council has determined that the adopted Clinton Township Highlands Area Exemption Ordinance is consistent with the MOU. We have confirmed that each individual listed (by job title/position) in the Exemption Ordinance as an Exemption Designee has successfully completed the required Highlands Council training program.

We congratulate you on reaching this important milestone and enclose a certification for the Township of Clinton indicating that all requirements of the Highlands Exemption program have been satisfied. We have also included a certificate for each Exemption Designee, Marvin Joss, Township Administrator and Tom Silvia, Zoning Officer. The Exemption Designees may now begin to issue the applicable Highlands Act Exemptions on behalf of the municipality. Should the Exemption Designees have any questions relating to Exemption Determinations, please have them contact your Highlands Council Staff Liaison, Corey Piasecki, Regional Planner (telephone ext.129, e-mail address [corey.piasecki@highlands.nj.gov](mailto:corey.piasecki@highlands.nj.gov)).

Please also be advised that the Township of Clinton may now submit invoices pertaining to preparation and adoption of the Exemption Ordinance and, if you have not already done so, attendance at the Exemption Certification training. A payment voucher will be issued by the Highlands Council upon review of the submitted invoices and a determination that they are reasonable and administratively complete.

Thank you for your continued efforts to address Plan Conformance and safeguard the resources of the Highlands Region. Please do not hesitate to contact me directly (telephone extension 101, e-mail address [margaret.nordstrom@highlands.nj.gov](mailto:margaret.nordstrom@highlands.nj.gov)) should you or your elected and appointed officials have questions or require assistance regarding this or any other Highlands matter.

Sincerely,



Margaret Nordstrom  
Executive Director  
Clinton



Corey Piasecki  
Highlands Staff Liaison to Township of

Enclosures

c: Marvin Joss, Township Administrator  
Tom Silvia, Zoning Officer  
Service List