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Community Planning
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HIGHLANDS INITIAL ASSESSMENT REPORT

**TOWNSHIP OF MONTVILLE
MORRIS COUNTY, NEW JERSEY**

PREPARED FOR:

**TOWNSHIP OF MONTVILLE PLANNING BOARD AND TOWNSHIP COMMITTEE
BA# 1946.51**

May 26, 2009

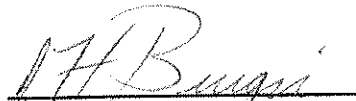
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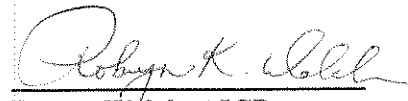
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The original document was appropriately signed and sealed on May 26, 2009 in accordance with Chapter 41 of Title 13 of the State Board of Professional Planners.



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I. INTRODUCTION

On July 17, 2008, the Highlands Council adopted the Highlands Regional Master Plan (RMP). This plan is a requirement of the Highlands Act approved in 2004. The plan was endorsed by Governor Corzine on September 5, 2008, who issued Executive Order 114 to further protect the Highlands Region. The RMP provides a regional outlook and guidance for counties and local municipalities in this region.

In order to determine the anticipated level of effort needed to bring Montville's planning program into conformance with the RMP, the Township has been awarded an Initial Assessment Grant. This Grant allows the municipality to conduct an initial review of the goals, policies and objectives contained in the RMP, evaluate the local planning program for consistency with the RMP, and determine the steps necessary for the municipality to achieve Basic and/or Full Plan Conformance. The following report addresses each of these items, as well as provides a rough estimate of the time, effort and cost involved in completing them.

In preparing this report, we have consulted the following documents/data sources:

1. 1993 Montville Township Comprehensive Master Plan.
2. 1996 and 2008 Montville Township Land Use Plan Element Amendments.
3. 1996 Montville Township Housing Element and Fair Share Plan.
4. 2001 Montville Township Parks and Recreation Plan Element.
5. 2005 Montville Stormwater Management Plan Element.
6. 1997, 2003 and 2009 Montville Township Master Plan Reexamination Reports.
7. 1992 Montville Township Natural Resources Inventory (NRI).
8. 2000 Montville Township Groundwater Exploration Summary Report (Executive Summary).
9. 2003 Montville Township Wellhead Protection Program.
10. Montville Township Land Use Ordinances.
11. 1996 Township of Parsippany-Troy Hills Wastewater Management Plan (WMP).
12. 2008 Highlands Regional Master Plan.
13. Highlands Council 'Basic Plan Conformance for Municipalities, Key Requirements'.
14. Highlands Council 'Plan Conformance Guidelines'.
15. Digital spatial data from the Highlands Council website and updated data sent to the Township.

It is important to note that the purpose of this report is to provide a general overview of the goals, policies and objectives contained within the RMP, as well as to give a broad outline of the Township's current level of consistency therewith. This report is not designed to provide an exhaustive review of the RMP's provisions or the specific changes that will ultimately need to be made to the Township's planning programs. Clearly, at the time that the Township's planning documents are amended to conform to the RMP, it will have to address all relevant items. However, that level of detail is not necessary for the purposes of this report.

It is also important to note that, given the fact that the majority of Montville's planning documents were adopted prior to adoption of the RMP, a high level of consistency cannot be expected. **As discussed in more detail in the body of this report, it is anticipated that the Township will need to prepare the following items in order to bring its planning program into Full Plan Conformance with the RMP:**

- An updated Natural Resources Inventory (NRI);
- An updated Master Plan document, which will include revised goals, policies, and objectives, and the creation of or amendments to an existing Land Use Plan, Housing Plan, Conservation Plan, Utilities Plan, Circulation Plan, Open Space Plan, Community Facilities Plan, Economic Plan, and Historic Preservation Plan. Incorporated within these plans will be a new or revised Community Forestry Plan, Stream Corridor Protection/Restoration Plan, Critical Habitat Conservation and Management Plan, Lake Management Plan(s), Water Use and Conservation Management Plan, Stormwater Management Plan and Wastewater Management Plan. In addition, if the Township elects to participate in the optional Highlands TDR Program, it will need to prepare a Development Transfer Plan.
- Updated land use regulations, which amend or incorporate definitions, zone districts and district regulations, regulations pertaining to water and wastewater and all Highlands resources, low impact development best management practices, application procedures and submission checklists, and notice requirements. Amended stormwater management regulations also appear to be necessary.
- RMP Updates and/or Map Adjustments, which include factual revisions, corrections or updates to the RMP as well as other adjustments that go beyond factual updates to ensure sound regional planning in support of the RMP and the Highlands Act.

Because the Highlands Council recognizes the large volume of work that will need to be done in order to bring most municipalities into conformance with the RMP, it has created a two-step process for achieving Plan Conformance. The first step is "Basic" Plan Conformance, wherein the Township is required to complete only the most immediate mandatory conformance requirements by **December 8, 2009**. These requirements are outlined in Chapter IV of this report. As detailed therein, the Township is required to complete a Municipal Self-Assessment and Implementation Schedule, which details the remaining steps and expected timeframe to achieve "Full" Plan Conformance. Under Full Plan Conformance, the Township's planning program will reflect all elements of the RMP, and will entail all of the changes detailed above.

These issues are discussed in more detail in the body of this report.

II. OVERVIEW OF RELEVANT DOCUMENTS

a. The Highlands Act

On August 10, 2004, the New Jersey Legislature enacted the Highlands Water Protection and Planning Act in an effort to protect water and other critical natural resources in the Highlands region. The Highlands region is located in the northwest part of New Jersey, encompassing 88 municipalities in seven counties. It includes 859,358 acres and is divided into two areas: Preservation Area and Planning Area. The Township of Montville has land in both the Preservation and Planning Areas. Whereas 3,440 acres in the northwestern portion of the Township is within the Preservation Area, the remainder of the Township, comprising 8,793 acres, is located within the Planning Area.

The Highlands Act sets forth a number of goals for these Areas, as well as for the Highlands region as a whole. These are as follows:

Region-Wide Goals:

- Protect, restore and enhance the quality and quantity of surface and ground waters.
- Preserve farmland and historic sites and other historic resources.
- Preserve outdoor recreation opportunities, including hunting and fishing on publically owned lands.
- Promote conservation of water resources.
- Promote brownfield remediation and redevelopment.

Preservation Area Goals:

- Preserve extensive and, to the maximum extent possible, contiguous areas of land in its natural state, thereby ensuring the continuation of Highlands environment which contains the unique and significant natural, scenic and other resources representative of the Highlands Region.
- Protect the natural, scenic, and other resources of the Highlands Region, including, but not limited to, contiguous forests, wetlands, vegetated stream corridors, steep slopes, and critical habitat for fauna and flora.
- Promote compatible agricultural, horticultural, recreational, and cultural uses and opportunities within the framework of protecting the Highlands environment.
- Prohibit or limit, to the maximum extent possible, construction or development which is incompatible with preservation of this unique area.

Planning Area Goals:

- Preserve to the maximum extent possible any environmentally sensitive lands and other lands needed for recreation and conservation purposes.
- Protect and maintain the essential character of the Highlands environment.
- Promote the continuation and expansion of agricultural, horticultural, recreational, and cultural uses and opportunities.
- Encourage, consistent with State Development and Redevelopment Plan and smart growth

strategies and principles, appropriate patterns of compatible residential, commercial and industrial development, redevelopment, and economic growth, in or adjacent to areas already utilized for such purposes; discourage piecemeal, scattered and inappropriate development, in order to accommodate local and regional growth and economic development in an orderly way while protecting the Highlands environment from the individual and cumulative adverse impacts thereof.

- Promote a sound, balanced transportation system that is consistent with smart growth strategies and principles and which preserves mobility in the Highlands Region.

The Preservation Area, as the name suggests, is the area with the highest resource value that was subject to the immediately effective standards in the Highlands Act, governed by rules and regulations adopted by the New Jersey Department of Environmental Protection (NJDEP). The Planning Area, however, was not subject to the immediately effective standards. Instead, the Highlands Council was required to analyze the protection needs of the Planning Area through preparation of the Regional Master Plan (RMP).

b. Highlands Regional Master Plan (RMP)

The Regional Master Plan (RMP) establishes a regional planning framework for resource protection as a complement to local land use planning efforts. Its major purpose is to determine the amount and type of human development and activity which the ecosystem of the Highlands Region can sustain. As such, the RMP sets forth a series of goals, policies and objectives guiding development in the Preservation and Planning Areas, as well as a set of programs to implement them.

As noted previously, the Preservation Area is subject to detailed and stringent standards through the RMP as well as the Highlands Water Protection and Planning Act Rules. The RMP additionally sets forth goals specific to the Planning Area. It contemplates that development and redevelopment within the Planning Area could incorporate development rights transferred from lands in the Preservation Area in order to mitigate any disproportionate burden imposed on Preservation Area landowners and to protect the most critically sensitive natural and agricultural resources. The RMP also promotes organic development in the Planning Area which respects and reflects historical development practices in individual communities balanced by the preservation of core environmentally sensitive lands.

In order to guide the implementation of the policies contained in the RMP, the Highlands Council developed the Land Use Capability Zone Map. The Land Use Capability Zone Map divides the region into three primary overlay zones and four sub-zones, each of which is based upon a determination of overall carrying capacity for development. The underlying municipal zoning establishes permitted land uses, while the overlay zones may detail more site specific requirements aimed at a certain goal, with the stricter standard applying. Examples of these standards may include best management practices related to preservation of agricultural lands or green building approaches for development initiatives.

The three primary overlay zones include the Protection Zone, Conservation Zone, and Existing Community Zone. The four Sub-Zones include the Wildlife Management Sub-Zone, Conservation Zone – Environmentally Constrained Zone, Existing Community Zone – Environmentally Constrained Sub-Zone, and Lake Community Sub-Zone. As shown in the accompanying Land Use Capability Zone Map, those relevant to Montville include the Protection Zone, Existing Community Zone, Existing Community Zone –

Environmentally Constrained Sub-Zone, and Lake Community Sub-Zone. These overlay zones and Sub-Zones are described in the table below:

**Applicable Land Use Capability Zones
Township of Montville**

Overlay Zone	Description
Protection Zone	Consists of areas with high natural resource value that are important to maintaining water quality and quantity, and sensitive ecological resources and processes. Land acquisition is a high priority in the Protection Zone and development activities will be extremely limited. Any development will be subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands.
Existing Community Zone (ECZ)	Consists of areas with regionally significant concentrated development signifying existing communities. These areas tend to have limited environmental constraints due to previous development patterns, and may have existing infrastructure that can support development and redevelopment, if such development is compatible with the protection and character of the Highlands environment, at levels that are appropriate to maintain the character of established communities.
Existing Community Zone – Environmentally Constrained Sub-Zone	Consists of significant contiguous Critical Habitat, steep slopes and forested lands within the Existing Community Zone that should be protected from further fragmentation. They serve as regional habitat “stepping stones” to larger contiguous Critical Habitat and forested areas. As such, they are not appropriate for significant development, and are best served by land preservation and protection. Development is subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands.
Lake Community Sub-Zone	Consists of patterns of community development that are within the Existing Community Zone within 1,000 feet of lakes. The Highlands Council focused on lakes that are 10 acres or greater and delineated lake management areas consisting of an area of up to 1,000 feet (depending on the protection focus) from the lake shoreline in order to protect water quality, resource features, shoreline development recreation, scenic quality and community character. A future management area is planned, encompassing the full lake watershed, for protection of the lake water quality. This sub-zone has unique policies to prevent degradation of water quality, and watershed pollution, harm to lake ecosystems, and promote natural aesthetic values within the Existing Community Zone.

Another key program developed by the Highlands Council to implement the policies of the RMP is the Highlands Transfer of Development (TDR) Program. This program is intended to preserve lands containing sensitive resources by permitting the transfer of development potential from areas identified for

preservation, called Sending Zones, to areas that are more appropriate to accommodate increased growth, called Receiving Zones. Landowners in the Sending Zones receive compensation for the transferable development potential of their property that has been restricted in support of preservation. Payment for this lost development potential comes from purchasers who buy credits (terms HDCs within the RMP) representing the lost development potential of parcels in the Sending Zones. The credits then entitle the purchaser to build in a Receiving Zone at a density greater than that permitted in the existing zoning.

Lands that are eligible to apply for HDCs as a Sending Zone include those located within a Protection or Conservation overlay zone, whether in a Preservation Area or Planning Area. Lands that are eligible as Receiving Zones must be within the Planning Area and located within an Existing Community overlay zone, a Highlands Redevelopment Area, or a Conservation overlay zone (so long as the development does not conflict with viable agriculture). The Highlands Council has identified several parcels within the Township on the accompanying Potential Voluntary TDR Receiving Zones Map. It is important to emphasize the fact that any Receiving Zones in the TDR Program are strictly voluntary and not a requirement of Plan Conformance.

Conformance with the RMP is mandatory for municipalities wholly or partially located in the Preservation Area, whereas it is voluntary for those municipalities in the Planning Area. For the Preservation Area, municipalities are required to petition the Highlands Council for conformance with respect to that area within 9 to 15 months of adoption of the RMP, or no later than December 8, 2009. For the Planning Area, municipalities may file petitions relative to that area at any time. However, because the Township of Montville has already adopted a "Notice of Intent" to pursue Plan Conformance for both the Preservation and Planning Areas, it must meet the December 8, 2009 deadline for both Areas.

The RMP encourages Plan Conformance through a variety of benefits and incentives, as detailed below:

- Council on Affordable Housing (COAH) Relief. On September 5, 2008, Governor Corzine officially endorsed the RMP and called for a balance between the constitutional obligation to provide affordable housing and the protection of critical natural resources in the Highlands region. Subsequently, the Highlands Council and the Council on Affordable Housing (COAH) entered into a joint Memorandum of Understanding to implement the provisions of E.O. 114. Among these provisions is that COAH will grant an extension for submitting housing Elements and fair share plans from December 31, 2008 to December 8, 2009 for those municipalities participating in Plan Conformance. Also, Plan Conformance will entitle municipalities to an adjusted growth projection, which will most likely reduce their affordable housing obligation.
- Planning Grants and Technical Assistance. The Highlands Council will make grant funds and other financial and technical assistance available to municipalities at all stages of Plan Conformance. Examples of grant funding include Initial Assessment Grants, Plan Analysis and Conformance Grants, and Voluntary Receiving Zone Feasibility Grants for assessing the potential for participation in a TDR Program. Examples of technical assistance include numerous model planning documents and land use regulations for use by municipalities.
- Tax Stabilization Funds. Funds may be authorized through the Highlands Property Tax Stabilization Board, which is in, but not of, the New Jersey Department of Treasury, to stabilize municipal budgets due to implications stemming from RMP implementation, including a decline in

property values that is directly related to the Highlands Act.

- Strong Presumption of Validity, Extraordinary Deference, and Burden of Proof. For municipalities in conformance with the RMP, a strong presumption of validity shall apply to master plans, land use ordinances, and local decisions. If a conforming municipality is challenged in court, the actions it has taken to conform to the RMP shall be given extraordinary deference and the burden of proof shall be on the plaintiff to prove that the municipality acted in an arbitrary, capricious, or unreasonable manner.
- Legal Representation. The Highlands Council shall, where appropriate in accordance with the Highlands Act, provide legal representation to any requesting municipality that conforms with the RMP in any cause of action filed against the municipality.
- Equivalency of State Plan Endorsement. For any municipality in conformance with the RMP, the local plan for that municipality will be considered equivalent to having been endorsed by the State Planning Commission. This means that in addition to State monetary benefits available to the municipality, a housing plan Element and fair share plan previously approved by COAH will continue to be recognized as valid by COAH.

c. Montville Township Master Plan Documents

Montville Township's most recent comprehensive master plan document was adopted in 1993. Since this time, amendments have been made to the Township's Land Use Plan Element (1996 and 2008), Housing Element and Fair Share Plan (1996), Recreation and Open Space Plan Element (2001), and Stormwater Management Plan Element (2005). The Township has also adopted periodic reexamination reports in 1997, 2003 and 2009.

The Township's most up-to-date goals and objectives are as follows:

- Maintaining constant vigilance over regional planning activities, especially those at the state and county levels, in terms of their potential impact on local planning and development capabilities and decision making powers.
- Coordinating, where needed, local planning efforts with those of neighboring municipalities to achieve a maximum degree of compatibility, particularly along common municipal boundaries.
- Avoiding adverse impacts on the local environment and adopting ordinances and techniques which will protect, to the extent of municipal powers, sensitive wetlands, steep slopes, potable ground water supplies, and flood prone areas.
- Preserving and improving, to the greatest extent possible, the established character and natural resources of the Township through careful land use planning at both the Master Plan and site-specific levels.
- Recognizing and adjusting land use planning efforts where necessary to address changing

demographic characteristics and conditions within the municipality.

- Maintaining the Township's supply of housing types in a well-maintained, safe and beautiful condition for all residents, including the significant supply of low and moderate income housing resources which has been approved and certified by the Council on Affordable Housing.
- Maintaining the Township's system of streets and roads to continue to provide for the safe and efficient movement of traffic and to discourage routes and roads which adversely impact neighborhood residential settings.
- Continuing the Township's on-going recreation and open space planning and acquisition activities to insure that sufficient permanent open space remains within the Township for conservation purposes and for the visual protection of the Township's natural beauty.
- Protecting and preserving the local heritage and traditions by careful planning in and around historic buildings and other landmarks of the community.
- Conducting land use decision-making and implementing policies which lend themselves to an economical, efficient and high quality public education system.
- Providing and maintaining a superior system of community facilities and services, including water and sanitary sewer utilities, fire, police, and other public safety services, public works and library facilities.
- Enacting land use ordinances and rendering land use decisions which are fiscally responsible and which promote an economically sound and balanced municipal tax base.

The Land Use Plan Element proposes 14 residential land use districts, 11 commercial land use districts, and four industrial land use districts. Minimum lot sizes recommended for the residential districts range from a high of 120,000 square feet (which comprises the majority the Preservation Area in Montville) to a low of 15,000 square feet (which corresponds with Montville's less constrained southern portion). The Township also recently amended its Land Use Plan Element to include two new mixed-use, transit-oriented land use districts in the vicinity of the Towaco Train Station. These districts are intended to promote smart growth through compact development and encourage the use of public transportation. Additionally, Montville's Land Use Plan Element contains two overlay districts pertaining to Critical Water Resources. The overlay districts place additional zoning and development control measures in an effort to protect potable water supply in the underlying aquifer.

The Circulation and Sidewalk/Walkway Plan Elements provide recommendations on a variety of transportation-related issues. The Circulation Plan Element proposes a number of improvements to existing roadways, several of which have been completed, as identified in the 2009 Reexamination Report. Most notable were the installation of a traffic light at the intersection of Route 202 and Whitehall Road in the Towaco section of the Township, street lights along Pinebrook Road, Pinebrook and Whitehall road improvements, River and Changebridge Road signal improvements, Route 202 and River Road intersection improvements, and signalization upgrades at Bloomfield Avenue in the vicinity of Home

Depot. The Circulation Plan Element also calls for on-going study of traffic mitigation measures, including bus transportation and the potential need for additional park and ride facilities. The Sidewalk/Walkway Plan Element identifies all existing sidewalks and recommends that new sidewalks be installed in the higher density sections of the Township. In addition, the Sidewalk/Walkway Plan Element proposes three recreation paths, including one which would follow the Morris Canal, another which would extend from the Canal to Woodmont Road along Changebridge Road, and a final one which would parallel Changebridge Road along utility easements.

The Recreation and Open Space Plan Element provides an extensive inventory of the Township's system of parks and preserved open spaces. Since its inception, Montville has preserved from development nearly 3,000 acres of land. The Recreation and Open Space Plan Element also prioritizes a number of additional properties for acquisition, with highest priority given to wetlands and other large concentrations of vacant land in the northern portion of the Township in an effort to protect the Towaco Valley Aquifer. Where acquisition is not feasible, the Plan recommends that clustering or conservation easements should be considered as a preservation option. In addition, the Recreation and Open Space Plan Element recommends a range of improvements to existing recreation facilities, a number of which have been accomplished, as detailed in the 2009 Reexamination Report.

The Community Facilities Plan Element also provides an inventory of Montville's existing community facilities and outlines long-range improvements, where applicable. The 2003 Reexamination Report recommends that the Planning Board request input and current data on school enrollment and class sizes from the Board of Education, and assemble current data regarding recent additions to the Township's inventory of Community Facilities. No additional community facilities have been added since the adoption of the 2003 Reexamination Report.

Although a separate Element of a master plan, the Community Facilities Plan Element also contains data relating to existing and proposed utility systems, as they directly impact density of development and the resultant need for municipal services and facilities. The Plan identifies the Township's existing water and sewer service areas, both of which are concentrated in the lower portions of the Township and more or less follow the Planning Area boundaries. The Plan also identifies the Township's primary water supply sources, which have a total gross storage capacity of 6.5 million gallons. As such, the Plan anticipates no difficulty in meeting future demand for potable water. With regard to sanitary sewers, the Plan notes that Montville contracts with the Township of Parsippany Troy-Hills to treat 2.5 million gallons per day (MGD) of raw sewage. The Township's average daily sewage flow to Parsippany-Troy Hills is 2.0 MGD. Approximately 100,000 gallons per day were said to be available for new projects, not including areas scheduled for sewers as part of Montville's 2003-2008 Capital Improvement Plan, which had additional capacity reserved.

The Housing Element and Fair Share Plan addressed Montville's second round COAH obligation and afforded the Township substantive certification until June 3, 2004. The Township was then awarded an extended period of protection until December 2005. COAH adopted new rules in November 2004 for the implementation of their third round methodology, however these rules were subsequently determined, through litigation, to require modification. A new set of revised third round rules were adopted in 2008. Montville, due to its participation in Highlands Plan Conformance, was granted an extension to prepare a new Housing Element and Fair Share Plan. The Township must prepare and adopt a new housing plan no later than December 8, 2009.

The Historic Preservation Plan Element includes an inventory of two historic districts, namely the Morris Canal district and the Capstick Historic districts, as well as several individual historic sites or landmarks. In total, 54 individual sites, 47 Morris Canal sites, and 15 Capstick sites are identified in the Plan. According to the 2003 and 2009 Reexamination Reports, no additional historic sites and/or districts have been identified. The 2003 Reexamination Report further recommends that the Planning Board request input from the Township's Historic Preservation Review Commission (HPRC), which has jurisdiction over geological formations and land factors.

Finally, the Stormwater Management Plan Element documents the strategy for Montville to address stormwater-related impacts. The Plan sets forth a series of goals relating to stormwater management, including the minimization of increases to stormwater runoff from new development, maintenance of groundwater recharge, prevention of an increase in nonpoint pollution, and protection of safety through design and operation of stormwater basins. To achieve these goals, the Plan outlines stormwater design and performance standards for new major development, defined as projects that disturb one acre or more of land or include ¼ acre or more of new impervious surface. Additionally, the Plan includes preventative and corrective maintenance strategies to ensure the long-term effectiveness of stormwater management facilities, as well as safety standards for stormwater infrastructure. Finally, the Plan also addresses the review and update of existing ordinances and other master plan documents to allow for project designs that include low impact development techniques.

d. Montville Township Land Use Regulations

As noted in the above discussion on Montville's Land Use Plan Element, the Township has a wide range of residential, commercial/industrial, and mixed-use zone districts. A majority of the Township's lands within the Preservation Area are zoned for very low density residential use (R-120). However, there are also Preservation Area lands in moderate and medium density residential use zones (R-80, R-43, R-27A, and R-20A) and industrial use zones (I-2). Montville's commercial/industrial districts are concentrated along Highways 80 and 46, Route 202/Main Road, and the southern portion of Changebridge Road.

It was also previously noted that Montville contains two Critical Water Resources (CWR) Overlay Districts, which place additional restrictions on minimum lot sizes, minimum yard setbacks, and maximum coverage limits on underlying properties. The two CWR Overlay Districts are identified as the Prime Aquifer Area and the Restricted Area. The Prime Aquifer Area follows the limits of the Towaco Valley Aquifer, whereas the Restricted Area mirrors the Aquifer Recharge Basin.

Clustering is an optional approach in many of the Township's single-family residential zones. The following table provides an overview of the conventional requirements in these zones, as well as the requirements for clustering.

**Select Area and Bulk Regulations, Single-Family Residential Zones
Township of Montville**

Zone	Min. Lot Size (sf)	Min. Front Yard (ft)	Min. Rear Yard (ft)	Min. Side Yard (ft)	Max. Impervious Coverage (%)
R-120					
Conventional lot	120,000	60	85	40	(a)
Clustered lot	43,750	50	75	25	(a)
R-80					
Conventional lot	80,000	50	75	30	(a)
Clustered lot	27,000	50	50	20	(a)
R-43					
Conventional lot	43,750	50	75	25	(a)
Clustered lot	27,000	50	50	20	(a)
R-27A, B, C, D					
<i>Outside CWR</i>					
Conventional lot	27,000	50	50	20	(a)
Clustered lot	21,850	50	50	15	(a)
<i>Prime Aquifer</i>					
Conventional lot	80,000	50	75	30	40
Clustered lot	27,000	50	50	15	40
<i>Restricted Area</i>					
Conventional lot	43,750	50	75	25	50
Clustered lot	27,000	50	50	20	50
R-20A, B					
<i>Outside CWR</i>					
Conventional lot	20,000	45	50	15	(a)
<i>Prime Aquifer</i>					
Conventional lot	43,750	45	50	15	40
<i>Restricted Area</i>					
Conventional lot	27,000	45	50	15	50

(a) 200% of maximum lot coverage, except for lands in CWR Overlay District, where it is limited to 40% of land area in the Prime Aquifer Area and 50% of land area in the Restricted Area.

Montville’s existing land use regulations also contain specific provisions relating to environmentally sensitive areas. These are as follows:

- *Regulation of Wetlands.* The Township requires that a wetlands letter of interpretation (“LOI”) issued by NJDEP be submitted as part of any application for development, except that for single- or two-family residential lots, the applicant need only submit an on-site wetlands delineation or a certification that wetlands do not exist on-site. All development applications are required to document the location of wetlands and wetland transition areas on-site and, if necessary, provide for the installation of disturbance fencing and silt fencing/hay bales. As a condition of approval for any application containing wetlands and/or wetland transition areas, the applicant is required to submit proof of any deed restrictions required by the NJDEP, and record in the County land records a mapped description of the wetlands limits with a notice that no disturbance will occur therein.

- *Regulation of Slopes.* The Township requires that all applicants for development delineate the area of proposed disturbance within certain slope classes. Slope disturbance is restricted in accordance with the following schedule:

**Permitted Disturbance of Steep Slopes
Township of Montville**

Slope Category	Max. Disturbance (%)
14% or less	100
15% to 19.9%	50
20% to 24.9%	33.3
25% or greater	0*

* Unless such activity is essential for the construction of a roadway or driveway crossing, required utility connection, stormwater management control facility, or other like necessary improvement.

e. Montville Township Natural Resources Inventory (NRI)

In September 1992, the Montville Township Environmental Commission prepared a Natural Resources Inventory (NRI), which provides a comprehensive inventory of natural resources in the Township. The NRI covers geology, soils, species (including endangered species), vegetation, wetlands, surface water, groundwater, high value and severe habitats, unique natural areas, and areas of environmental contamination/hazardous waste sites. Each of these resources is described in text and accompanied by figures, tables, maps and references.

f. Parsippany-Troy Hills Township Wastewater Management Plan (WMP)

As previously noted, Montville Township contracts with the Township of Parsippany-Troy Hills for sewage collection and treatment. The most recent Wastewater Management Plan (WMP) for the Parsippany-Troy Hills planning area was adopted in January 1996. The WMP was prepared in conformance with the New Jersey Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.) and Water Quality Management Planning Rules (N.J.A.C. 7:15-3.4). It was approved by NJDEP as an amendment to the Northeast Water Quality Management (WQM) Plan.

The WMP identifies the existing and proposed sewer service areas of the Parsippany-Troy Hills Wastewater Treatment Plant (WTP). Prior to adoption of the WMP, the existing sewer service area of the WTP included only Parsippany-Troy Hills Township. The Montville Township Municipal Utilities Authority was serving sewered areas within Montville. However, as part of the WMP, responsibility for the Township of Montville transferred to the Township of Parsippany-Troy Hills, with the exception of four properties included in the Two Bridges Sewerage Authority (TBSA) WMP area, including the Alpine House Conference Center, two private residences, and a single-family dwelling located at 32 Alpine Road (Block 111 Lot 12).

Proposed sewer service areas under the Parsippany-Troy Hills WMP include the majority of Montville Township. The growth and location of sewers is controlled by Montville Township itself, within the parameters of the delineation of the future service area in the WMP and the contracted daily sewage flow limit. According to the WMP, Montville contracts with Parsippany-Troy Hills for a daily sewage flow of

2.375 MGD. This figure pre-dates the contracted daily sewage flow rate of 2.50 MGD noted in the 2003 Master Plan Reexamination Report, as discussed previously.

The Parsippany-Troy Hills WMP is clearly an outdated document. Given this fact, and the fact that the WMP was prepared well before the preparation and adoption of the Highlands RMP, it can be expected that major revisions are needed in order to achieve Plan Conformance. This will be discussed in more detail in the following chapter of this report.

III. CONSISTENCY REVIEW

The Highlands Regional Master Plan (RMP) is divided into several Elements, which represent the major policy areas covered in the document and correspond with the goals set forth in the Highlands Act. These Elements, and their projected impact on Montville Township's planning program, are discussed in detail below. It is noted that where a change to the Township's existing planning program appears to be required for Plan Conformance, such change is highlighted in **bold**.

a. Forested Areas

RMP Analysis

Protecting the integrity of Highlands region forests is dependent on the maintenance of large contiguous forested areas and healthy forest stands. The Highlands Council has prepared a Forest Resource Area Map, which delineates the areas within the Highlands region that exhibit the least fragmentation and are the most vital for the maintenance of ecological processes. Lands within the Forest Resource Area were included because they express one or more of the following indicators: a contiguous forest patch of equal to or greater than 500 acres in size; an area consisting of greater than 250 acres of core forest area greater than 300 feet from an altered edge; or areas that include greater than 45 percent of mean total forest cover and mean distance to the nearest patch.

Also of importance to the Highlands region forests is the integrity of the forested subwatersheds that provide important water quality benefits. The Forest Cover Integrity Map assigns an integrity level to every subwatershed in the Highlands region, including high, moderate and low. A high integrity forest subwatershed is defined as one which is predominantly forested, including a high proportion of forest cover consisting of high core area, large patch size, and a low distance to nearest patch. Moderate integrity forest subwatersheds are those that are predominantly forested, but do not exhibit a high proportion of forest cover, core area or patch size and an increase in distance to nearest patch. Low integrity forest subwatersheds are those that are predominantly non-forested or include low values for proportion of forest cover and patch size, or a high distance to nearest patch.

The RMP sets forth a number of goals, policies and objectives relating to Forested Areas, as follows:

- To limit human development in the Forest Resource Area in the Preservation Area as follows: implement regulations which limit permissible uses to maintenance of pre-existing uses and restoration of impaired forest areas; prohibit deforestation for human development, except where exempt from the Highlands Act; and prohibit the expansion or creation of public water supply systems and public or community wastewater systems into forested areas.
- To prohibit in the Planning Area the expansion or creation of public water supply systems and public or community wastewater systems into forested areas of the Forest Resource Area where located in a Protection Zone, Conservation Zone, or Environmentally-Constrained Sub-Zone.
- To prohibit forest clear-cutting within the Forest Resource Area, except in accordance with a Forest Management Plan.
- To limit human development of forests to low impact residential development in the Protection Zone and the Conservation Zone in the Planning Area.
- To limit deforestation in the Forest Resource Area and forested lands within High Integrity Forest

- Subwatersheds within the Existing Community Zone (ECZ) to the maximum extent practicable.
- To ensure that forest resources are protected on a site-specific basis during local development review.
 - To address the protection of Forest Resource Areas and High Integrity Forest Subwatersheds in municipal master plans and development regulations, including the adoption of a Community Forestry Plan Element of the master plan and municipal tree protection and clearing ordinances.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide model documents that can be adopted or used to supplement the existing planning program. Specifically, the Council will provide a model municipal tree protection ordinance, as well as guidance on Community Forestry Plans, forest conservation and mitigation plans, forest stewardship plans, and low impact development best management practices.

Montville Township Plans and Regulations

The accompanying Forest Resource Area map delineates the forest resource areas within Montville Township. As shown, nearly the entire Preservation Area, as well as portions of the Planning Area in the northwestern and northeastern sections of the Township are classified as Forest Resource Area. The accompanying Land Use Capability Zone Map also shows that the majority of Montville's land within the Protection Zone and Lake Community Sub-Zone are classified as Forest Resource Area, as are a number of areas in the ECZ and Existing Community – Environmentally Constrained Sub-Zone.

Additionally, the accompanying Forest Cover Integrity Map assigns an integrity level to every subwatershed in the Township, including high, moderate and low. As shown, the majority of the Township is classified as High Integrity Forest. However, the southwestern portion of the Township (Rockaway River Subwatershed) is classified as Low Integrity Forest, and a small area in the southeastern portion of the Township (Passaic River Upper Basin (Pine Brook to Rockaway) Subwatershed) is classified as Moderate Integrity Forest.

A review of the Township's 1992 Natural Resources Inventory (NRI) indicates that the Township's forested lands have been well documented, in both text and mapped form. However, because the NRI was adopted before the RMP, it does not identify forest resources in the same way. **As such, the Township's NRI must be revised to reflect the locations and descriptions of Forest Resource Areas and Forest Cover Integrity, as contained in the RMP.**

The 2003 Periodic Reexamination of the Master Plan indicates that the Township had undertaken a long-range planning effort involving the study of possible zoning changes to the environmentally sensitive R-80 and R-120 Zones in the northern portion of the Township and, as part of this effort, a tree removal ordinance had been drafted and recommended for adoption. However, no formal action has been taken by the Township Committee. The Township's master plan documents do not contain any additional language regarding forested areas or the protection thereof. Therefore, in order to achieve consistency with the RMP, the Township will need to revise its master plan in a number of ways. **First, it must prepare a Conservation Plan Element, which incorporates the relevant goals, policies and objectives contained in the RMP. Also, because many of the RMP's goals, policies and objectives rely on Land Use Capability Zone designations, the Township must adopt the Land Use Capability Zones into the Land Use Plan Element. Lastly, the Township must also prepare a Community Forestry Plan**

Element, which will be used to maintain and improve forest cover in developed areas and provide the basis for a required tree clearing ordinance.

The Township's land use regulations only address forested areas to a limited extent. The checklist requirements for all site plan and subdivision applications include the requirement that existing physical features, including trees over 18 inches dbh, be shown both onsite and within 100 feet. The land use regulations at Section 16.28.020M(f) also require that all site plan and subdivision applications include the proposed limits of clearing, including all trees 4 inches or more in diameter proposed to be removed. In addition, as discussed previously in this report, the land use regulations restrict the amount of disturbance permitted on steep slope areas. However, the land use regulations contain no further restrictions on the amount of tree clearing that may occur. Nor do the land use regulations limit human development in the manner prescribed by the RMP with relation to the Land Use Capability Zones. **Therefore, the Township's land use regulations will need to be revised to incorporate the Land Use Capability Zone designations, regulations that address each of the applicable RMP goals, policies and objectives set forth above, low impact development best management practices, and tree protection and clearing ordinances.**

b. Open Waters and Riparian Areas

RMP Analysis

Highlands Open Waters include all springs, wetlands, intermittent or ephemeral streams, perennial streams, and bodies of surface water, whether natural or artificial, located wholly or partially within the boundaries of the Highlands Region. 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. These two resources are presented in the Highlands Open Waters Map and Riparian Areas Map, respectively.

The integrity of Riparian Areas may be defined by that area's ability to provide water protection and ecological function. High Integrity Riparian Areas exhibit predominantly natural vegetation, including high quality habitat for water/wetland dependent species, and a generally low incidence of impervious area, agricultural uses, and/or road crossings. Moderate Integrity Riparian Areas contain a higher incidence of impervious area, agricultural uses, and road crossings, and a reduced proportion of natural vegetation, including high quality habitat for water/wetland dependent species. Low Integrity Riparian Areas contain a high proportion of impervious area, agricultural uses, and road crossings, and minimal natural vegetation, including high quality habitat for water/wetland dependent species. The Highlands Council assigned a Riparian Area value class to each subwatershed in the region, which is presented in the Riparian Integrity by HUC14 Map.

A high priority is for municipalities to develop and implement a Stream Corridor Protection/Restoration Plan, which will be used as a basis for both development review and restoration activities. The Stream Corridor Protection/Restoration Plan shall identify existing disturbed areas within Highlands Open Waters buffers, identify and require opportunities for restoration of such areas, and identify the extent of stream corridor features that are critical to supporting the functions of a healthy Highlands Open Waters buffer. Where a Stream Corridor Protection/Restoration Plan has not been approved by the Highlands Council,

site-by-site development applications in municipalities will be required to strictly adhere to the RMP goals, policies and objectives below.

The RMP goals, policies and objectives relating to Open Waters and Riparian Areas are as follows:

- To establish a protection buffer of 300 feet from the edge of the discernable bank of streams, from the delineated LOI line for wetlands, or from a field delineated boundary for other Highlands Open Waters features. The protection buffer width may be modified for Category 2 streams in the Planning Area or in approved Redevelopment Areas.
- To require that all local development applications include the identification and mapping of Highlands Open Waters and Riparian Areas.
- To prohibit all major Highlands developments within Highlands Open Waters and their 300-foot buffer in the Preservation Area, except for linear development, which may be permitted provided there is no feasible alternative.
- In the Protection, Conservation and Existing Community Zones, to allow disturbances of Highlands Open Waters buffers only in previously disturbed areas.
- To 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.
- To prohibit modifications to Riparian Areas in the Protection Zone, except where a waiver is approved by the NJDEP or Highlands Council.
- To restrict modifications to Riparian Areas in the ECZ that would alter or be detrimental to the water quality and habitat value of a Riparian Area.
- To 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 and provide for mitigation through restoration of impaired Riparian Areas in the same subwatershed.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide technical guidance for the development of Stream Corridor Protection/Restoration Plans, and for the restoration of impaired streams and riparian areas.

Montville Township Plans and Regulations

The accompanying Highlands Open Waters Map and Riparian Areas Map delineates the location of these resources within Montville Township. As shown, Highlands Open Waters and their associated buffer areas are located throughout the Township, but particularly in the Preservation Area and the perimeters of the Township in the Planning Area. The Riparian Areas Map shows that these areas roughly correspond with the locations of the Highlands Open Waters and buffers.

Additionally, the accompanying Riparian Integrity by HUC14 Map assigns a riparian area integrity level to every subwatershed in the Township, including high, moderate and low. As shown, the northernmost portion of the Township (Stony Brook Subwatershed) is classified as High Integrity Riparian Area; the eastern portion of the Township (Lincoln Park and Passaic River Upper Basin (Pompton River to Pine

Brook) Subwatersheds) is classified as Moderate Integrity Riparian Area; and the remainder of the Township (Montville, Rockaway River, and Passaic River Upper Basin (Pine Brook to Rockaway) Subwatersheds) is classified as Low Integrity Riparian Area.

The Township's 1992 NRI provides an extensive overview, in both text and mapped form, of Montville's wetlands and other surface water features. However, because the NRI was prepared well before NJDEP's adoption of the Surface Water Quality Standards (SWQS) and Surface Water Classifications in 2004, the document does not identify key water bodies as they are identified in the RMP, including Category One streams. Moreover, the NRI does not address riparian areas or the 300-foot protection area buffers required for Highlands Open Waters, as set forth in the RMP. **Therefore, the Township's NRI must be revised to reflect the locations and descriptions of Highlands Open Waters and associated buffers, Riparian Areas, and Riparian Integrity, as contained in the RMP.**

Montville's Stormwater Management Plan Element and 2009 Periodic Reexamination Report also provide mapping of some surface water features, including Category One streams, lakes, and wetlands. However, like the NRI, these Plans do not identify riparian areas or 300-foot protection area buffers. The Township's master plan documents also do not contain a Conservation Plan Element or a Stream Corridor Protection/Restoration Plan, as required by the RMP. **Therefore, in order to achieve consistency with the RMP, the Township's master plan must be revised to include a Conservation Plan Element, containing the relevant RMP goals, policies and objectives; a Stream Corridor Protection/Restoration Plan; and adoption of the Land Use Capability Zones into the Land Use Plan Element, because many of the RMP's goals, policies and objectives rely on these designations.**

As previously discussed in this report, the Township's land use regulations contain specific regulations for wetlands consistent with the New Jersey Freshwater Wetlands Protection Act. These regulations require that all development applications identify the location of any wetlands and wetland transition areas on-site, and submit a NJDEP-issued letter of interpretation ("LOI") or certification that wetlands do not exist. The land use regulations also require that applicants identify potential impacts on and, if necessary, proposed mitigation for wetlands, floodplains, and stream encroachments in an Environmental Impact Assessment. Additionally, the stormwater management regulations establish a 300-foot protection area buffer around Category One streams, wherein disturbance can only occur where previous development or disturbance has occurred. However, none of the Township's land use regulations specifically address the RMP requirements for open waters and riparian areas, namely the creation of 300 foot buffers around *all* open waters and limitations of development based on Land Use Capability Zones. **Therefore, the Township's land use and stormwater management regulations will need to be revised as follows: require that applicants identify and map Highlands Open Waters, 300-foot buffer areas, and Riparian Areas; incorporate the Land Use Capability Zone designations; and limit development in accordance with each of the applicable RMP goals, policies and objectives set forth above.**

Also, although the stormwater management regulations contain some low impact development standards, they do not specifically relate to the disturbance of Highlands Resources. **Therefore, the Township's land use regulations will also need to be revised to include low impact development best management practices relating to Highlands Open Waters and Riparian Areas.**

c. Steep Slopes

RMP Analysis

The Highlands Council conducted an analysis of the Highlands region to identify areas that are significantly constrained by steep slopes and to ensure that the level of protection for these areas is appropriate. The resultant Steep Slope Protection Areas Map identifies slopes in the Highlands region that encompass a minimum of 5,000 square feet and that exhibited one of the following grade classifications: slopes of 20 percent or greater, slopes between 15 percent and 20 percent, and slopes between 10 percent and 15 percent that occur within Riparian Areas.

The RMP goes on to define slopes as follows: Lands with slopes of 20 percent or greater and lands within Riparian Areas with slopes of 10 percent and greater are considered Severely Constrained Slopes. All non-Riparian Area lands having a slope of 15 percent to less than 20 percent, which are forested, are considered Moderately Constrained Slopes. All non-Riparian Area lands having a slope of 15 percent to less than 20 percent, which are non-forested, and either are highly susceptible to erosion, have a shallow depth to bedrock, or have a Soil Capability Class indicative of wet or stony soils are considered Moderately Constrained Slopes. All non-Riparian Area lands having a slope of 15 percent to less than 20 percent, which are non-forested, and are not highly susceptible to erosion, do not have a shallow depth to bedrock, and do not have a Soil Capability Class indicative of wet or stony soils are considered Limited Constrained Slopes.

The RMP goals, policies and objectives relating to Steep Slopes are as follows:

- To require that applications for development include topographic information identifying the location of any Steep Slope Protection Areas.
- To require that applications for development involving parcels of land with slopes of 10 percent or greater include identification of forested lands, areas which are highly susceptible to erosion, depth to bedrock, and Soil Suitability Classes.
- To prohibit land disturbance within areas which are considered Severely Constrained Slopes and Moderately Constrained Slopes, except for linear development that meets the requirements of the Highlands Water Protection and Planning Act Rules.
- To require the use of Low Impact Best Development Practices for any land disturbance or human development within areas which are Constrained or Limited Constrained Slopes, or that involves an approved disturbance of a Severely Constrained or Moderately Constrained Slope.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide model steep slope protection standards for inclusion in municipal planning and regulatory documents, as well as other technical guidance in support of Plan Conformance activities.

Montville Township Plans and Regulations

As shown on the accompanying Steep Slope Protection Areas Map, the majority of the Township's steep slopes are located in the Preservation Area. Although there are also a number of steep slope areas in the Planning Area of the Township, they are considerably more isolated. It is noted that this map only identifies slopes by steepness and does not further define slopes as Severely, Moderately or Limited Constrained Slopes. Discussions with Highlands Council staff members indicate that maps identifying the locations of these categories will be released soon.

The Township's NRI includes text and maps relating to steep slope areas in Montville, however the NRI only addresses slopes greater than 15 percent and does not distinguish between different slope classes. **Therefore, the NRI will need to be revised to provide definitions and mapping of steep slopes which reflects the different slope categories (greater than 20 percent, greater than 15 percent, and greater than 10 percent within riparian areas) contained in the RMP.** Also, although the NRI contains written and mapped data pertaining to depth to bedrock, susceptibility to erosion, and soil suitability classes, it does not identify Severely, Moderately or Limited Constrained Slopes based on these factors. **Therefore, the NRI must also be revised to reflect the slope constraint classes defined in the RMP.**

The 2009 Periodic Reexamination of the Master Plan also provides mapping of the Township's steep slope areas, but, like the NRI, it only identifies slopes greater than 15 percent. The only other mention of steep slopes in Montville's master plan documents is in its goal of "avoiding adverse impacts on the local environment and adopting ordinances and techniques which will protect, to the extent of municipal powers, sensitive wetlands, steep slopes, potable ground water supplies, and flood prone areas." While this goal is generally consistent with the RMP, it does not reflect the specific goals, policies and objectives for steep slopes as set forth therein. **As such, the Township's master plan documents must be revised to include a Conservation Plan Element, which incorporates the relevant goals, policies and objectives contained in the RMP.**

As previously discussed in this report, the Township's land use regulations contain specific regulations for steep slopes. These regulations limit disturbance to 50 percent on slopes 15-20 percent, to 33.3 percent on slopes 20-25 percent, and completely on slopes 25 percent unless such disturbance is essential for certain improvements. However, these regulations are not consistent with the RMP's requirements for how to identify and protect steep slopes. **Therefore, the Township's land use regulations must be revised to require applicants to identify steep slopes and slope constraint classes as defined in the RMP; to limit development in accordance with each of the applicable RMP goals, policies and objectives set forth above; and to include low impact development best management practices related to steep slope areas.**

d. Critical Habitats

RMP Analysis

There are three categories of Critical Habitat in the Highlands region: 1) Critical Wildlife Habitat, which includes habitat for rare, threatened or endangered species; 2) Significant Natural Areas, which are regionally significant ecological communities, including habitat for documented threatened and endangered plant species; and 3) Vernal Pools, which are confined, ephemeral wet depressions that support distinctive, and often endangered, species that are specially adapted to periodic extremes in water pool levels. These categories are identified spatially on the Critical Wildlife Habitat Map and Significant Natural Areas and Vernal Pools Map.

A high priority is for municipalities to develop and implement a Critical Habitat Conservation and Management Plan, which will be used as a basis for both development review and restoration activities. Critical Habitat Conservation and Management Plans shall address the applicable goals, policies and objectives outlined in the RMP. Where a Critical Habitat Conservation and Management Plan has not

been approved by the Highlands Council, site-by-site development applications in municipalities will be required to strictly adhere to the RMP goals, policies and objectives below.

The RMP goals, policies and objectives relating to Critical Habitats are as follows:

- To prohibit the direct impact of new human development or expansion or increased intensity of existing development within Critical Habitat.
- To implement a Habitat Conservation and Management Program through a Critical Habitat Conservation and Management Plan. Such Plan shall establish performance standards requiring all development to employ Low Impact Development Best Management Practices as follows: 1) avoid the disturbance of Critical Habitat, 2) minimize impacts to Critical Habitat, and 3) mitigate all adverse modification to Critical Habitat so that there is no net loss of habitat value. Additional performance standards shall include requirement and criteria for mitigation of disturbed Critical Habitat, and the enhancement or restoration of historically disturbed Critical Habitat.
- To include in a Critical Habitat Conservation and Management Plan a Critical Habitat Overlay District, which identifies habitat in need of protection from fragmentation and other anthropogenic impacts, habitat critical to maintaining wildlife and plant populations, and habitat that serves other essential ecosystem functions such as carbon sequestration and ground water recharge.
- To require that applications for any local development review for Critical Habitat be subject to minimum standards and criteria outlined in a Habitat Conservation and Management Plan.
- To require that projects qualifying as major Highlands developments, affecting or potentially affecting Critical Habitat in the Preservation Area, comply with the Highlands Water Protection and Planning Act Rules and with the minimum standards and criteria outlined in the Critical Habitat Conservation and Management Plan.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide a model municipal conservation and management overlay district ordinance, and a Critical Habitat Conservation and Management Plan guidance document.

Montville Township Plans and Regulations

The accompanying Critical Wildlife Habitat Map and Significant Natural Areas and Vernal Pools Map identify the locations of these resources within Montville Township. As shown on the Critical Wildlife Habitat Map, critical habitat areas occupy almost the entire Preservation Area and, where they are located in the Planning Area, the essentially correspond with the locations of the Highlands Open Waters. The Significant Natural Areas and Vernal Pools Map shows there are two significant natural areas in the Township, including one located in the Preservation Area and one located in the Planning Area, and one vernal pool, which is located on preserved open space in the Preservation Area.

The Township's NRI includes an extensive inventory, in both text and map form, of the endangered species, high value habitats, and unique natural areas within Montville Township. However, because the NRI was prepared well before the adoption of the RMP or the NJDEP data upon which its critical habitat mapping relies, it does not identify critical habitats or significant natural areas in a manner consistent with the RMP. In addition, the NRI does not even address vernal pools. **Therefore, the NRI will need to be revised to reflect the locations and descriptions of Critical Wildlife Habitat, Significant Natural Areas, and Vernal Pools, as contained in the RMP.**

Montville's master plan documents do not contain any language regarding critical habitats or the protection thereof. Therefore, in order to achieve consistency with the RMP, the Township will need to revise its master plan in the following ways. **First, it must prepare a Conservation Plan Element, which incorporates the relevant goals, policies and objectives contained in the RMP. Also, the Township must prepare a Critical Habitat Conservation and Management Plan, which incorporates all of the performance standards set forth in the RMP and establishes a Critical Habitat Overlay District.**

The Township's land use regulations only address critical habitat to a limited extent. The stormwater management regulations at Section 16.25.030B require that stormwater management measures for major development avoid adverse impacts of concentrated flow on habitat for threatened and endangered species, as documented in the NJDEP Landscape Project and Natural Heritage database. **To be consistent with the RMP, the Township must amend its land use regulations to incorporate minimum performance standards and a Critical Habitat Overlay District ordinance, as set forth in the Township's Critical Habitat Conservation and Management Plan. The Township must also revise its land use regulations to require that all major Highlands development in the Preservation Area comply with the Highlands Act Rules relating to critical habitats.**

e. Land Preservation and Stewardship

RMP Analysis

The Highlands Council has prepared a Preserved Lands Map, which identifies the location of preserved open space, farmland, water supply watershed lands, and conservation easements throughout the Highlands region. The Highlands Act contemplates preservation of additional open space and farmland resources in order to protect and enhance ecosystem function, protect drinking water resources, and provide for passive and recreational lands. These lands are identified on the Conservation Priority Area and Agricultural Priority Area Maps. In order to accomplish these purposes, the RMP includes strategies for land preservation and stewardship among preservation partners, and ensuring that sufficient financial, institutional, and innovative resources are available for land preservation and stewardship.

The RMP goals, policies and objectives relating to Land Preservation and Stewardship are as follows:

- To establish and fund local open space acquisition and stewardship programs or to expand existing open space and stewardship programs.
- To adopt and enforce development regulations for the Special Environmental Zone in the Preservation Area, where development shall not occur in order to protect water resources and environmentally sensitive lands and which shall be permanently preserved through use of a variety of tools including, but not limited to, fee simple acquisition, easement acquisition, TDR programs, and development regulations. These zones are identified spatially on the Conservation Priority Area Map.
- To include an Open Space Preservation and Land Stewardship Element in municipal master plans.
- To identify and delineate existing preserved open space, including fee simple and easements; maintain a current Recreation and Open Space Inventory (ROSI); and identify lands subject to stewardship programs in municipal master plans.

- To require conservation or land stewardship easements 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 plat.
- To establish stewardship and monitoring programs for preserved lands owned by the municipality or county by fee acquisition or easement acquisition.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide model Cluster/Conservation Design development standards, and will establish a technical assistance program to aid in the development of stewardship plans. The Highlands Council will also develop an outreach and education program for Highlands landowners to help them take advantage of funding opportunities and incentives available for land preservation

Montville Township Plans and Regulations

As shown on the accompanying Preserved Lands Map, Montville Township has a large number of parcels preserved from future development. Whereas Township-owned open space is located throughout the municipality, State- and County-owned open space is primarily concentrated in Montville's Preservation Area. It is noted that the Township was required to verify the accuracy of this data during Plan Conformance Module 1 (Current Municipal Conditions & Build-Out Analysis) and found several preserved parcels that were not recognized on the RMP map. These parcels were submitted to the Highlands Council as RMP Updates, which, as discussed in more detail in the next chapter of this report, are factual corrections to the data in the RMP. **The Township should continue to monitor and inform the Highlands Council of additional parcels acquired for preservation.**

As previously noted, areas prioritized by the Highlands Council for future preservation are shown on the Conservation Priority Area and Agricultural Priority Area Maps. As shown on the accompanying Conservation Priority Area Map, the Highlands Council designates a number of areas in both the Preservation and Planning Areas as moderate conservation priority, and a portion of the Preservation Area as high conservation priority area. The Map also designates two parcels in the Preservation Area as a Special Environmental Zone, one of which is owned by the Deer Lake Club in Boonton and the second of which is within a wetlands conservation easement. An Agricultural Priority Area Map has not been included in this report because the Highlands Council does not designate any land in Montville Township as priority for agricultural preservation.

The Township's NRI does not address preserved lands in Montville, however its master plan documents do piece together to form an extensive inventory of parks and preserved open spaces in the Township. Existing and proposed preservation areas are addressed in the 1993 Community Facilities and Open Space Plan Element, 1999 and 2000 Open Space Plan Updates, 2001 Parks and Recreation Plan Element, and 2009 Master Plan Reexamination. A number of things need to be done, however, to bring the Township's master plan into conformance with the RMP. **First, the Township needs to consolidate its inventory of existing and proposed preserved lands into one complete document, for inclusion into the NRI and Open Space Element. Second, the Township needs to review the inventory to ensure it is up-to-date and consistent with the RMP maps. If necessary, the Township should submit additional RMP Updates to the Highlands Council. Additionally, the Township must amend its Open Space Plan Element to incorporate the relevant goals, policies and objectives contained in the RMP, as well as to include land stewardship strategies, which are presently lacking in the Township's master plan**

documents. As part of its review of land stewardship strategies, the Township should consider participation in the voluntary Highlands TDR Program, which is further discussed in the previous chapter of this report.

The Township's land use regulations permit optional clustering in the R-120, R-80, R-43, and R-27A Zones and, where employed, require that open space be set aside and preserved in perpetuity. The required open space may be preserved either by dedication for public use or for use by residents of the development by private covenant or deed restriction. The purpose of the open space must be for any of the following uses: undeveloped open space, public or private recreation facilities, school grounds (but not school construction), or conservation of environmentally sensitive lands. In order to ensure suitable maintenance of the open space, the establishment of a property owner's association or other open space organization is required. **To be consistent with the RMP, the Township must amend its land use regulations to incorporate the pertinent RMP goals, policies and objectives set forth above, including regulations pertaining to lands designated as Special Environmental Zones in the Preservation Area and regulations requiring conservation easements on lands identified for preservation in the master plan.**

f. Carbonate Rock (Karst) Topography

RMP Analysis

The term karst describes a distinctive topography that indicates dissolution of underlying carbonate rocks by surface water or ground water over time. This dissolution process causes surface depressions and the development of such features as sinkholes, sinking streams, enlarged bedrock fractures, caves and underground streams. Such features function as funnels, directing surface water runoff into karst aquifers with little or no attenuation of any transported contaminants. Stormwater basins, septic system leaching fields, sewers, agricultural runoff, lawn runoff, underground pipelines, and soil disturbance may also contribute contaminants directly to ground water through karst features. Therefore, management of development activities in carbonate rock areas is necessary to address the potential problems that are common to karst areas.

The Highlands Council relied upon existing New Jersey Geologic Survey and United States Geological Survey data to map areas of the Highlands region that are underlain by carbonate rocks. These areas are identified on the Carbonate Rock Area Map.

The RMP goals, policies and objectives relating to Carbonate Rock are as follows:

- To identify and delineate karst features and subwatersheds that drain surface water into the Carbonate Rock Area.
- For municipalities in, or within subwatersheds draining directly to, the Carbonate Rock Area, to ensure protection of public health and safety and the quality of ground waters from inappropriate land uses and pollutant discharges.
- To require that applications for site plan or subdivision approval include a multi-phased geotechnical site investigation to locate any potential karst features and potential hazards to public health and safety, structures, and ground water quality.
- To require that all potential hazards to public health and safety, structures, and ground water quality are fully addressed and mitigated in the construction plans and subsequent approval

process.

- To 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

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide critical requirements for development ordinances, as well as develop a technical guidance manual containing requirements for multi-phased geotechnical studies.

Montville Township Plans and Regulations

According to the Carbonate Rock Area Map in the RMP, Montville Township does not contain any such areas and therefore the map is not included in this report. The Township's 1992 NRI also contains no mention of carbonate rock (karst) topography in the Township, thereby suggesting that the Township does not have to amend its planning program to address this Highlands Resource. However, the New Jersey Residential Site Improvement Standards (RSIS) contains a list established by the NJDEP in April 1995, which indicates that there are carbonate rock (limestone) areas in Montville Township. **Therefore, as part of Plan Conformance, the Township should verify whether or not there are, in fact, carbonate rock areas in the Township. If such areas are found within the municipality, the Township will need to pursue RMP Updates and revise its NRI, master plan, and land use regulations in accordance with the RMP goals, policies and objectives, as set forth above.**

g. Lake Management

RMP Analysis

Efforts to protect, restore and enhance the water quality of Highlands lakes and to protect the unique character of Highlands lake communities require a delineation of lake resources to facilitate land use and water resource planning. The Highlands Council therefore created a Lake Management Area Map, which identifies the locations of lakes greater than 10 acres in size and associated Lake Management Areas throughout the region. Lake Management Areas are defined to include four tiers: 1) Shoreland Protection Tier, consisting of an area measured 300 feet or the first public road perpendicular to the shoreline of the lake; 2) Water Quality Management Tier, consisting of an area measured 1,000 feet perpendicular from the shoreline of the lake, including the Shoreland Protection Tier; 3) Scenic Resources Tier, consisting of an area measured 300 to 1,000 feet perpendicular from the shoreline of the lake; and 4) Lake Watershed Tier, consisting of the entire land area draining to the lake.

The RMP goals, policies and objectives relating to Lake Management are as follows:

- To establish unique standards (as compared to lakes within the Protection and Conservation Zones) for the Lake Community Sub-Zone within the ECZ within 1,000 feet of lakes, particularly with respect to the Shoreline Protection Tier, to prevent degradation of water quality, harm to lake ecosystems, and promote aesthetic values within the ECZ.
- To adopt and implement standards for application to public lakes in the Shoreland Protection Tier to address direct and proximate impacts upon the lake, such as shoreline modification and

development, docks, piers, boathouses, dredging, vegetation removal, increased impervious cover, and pollutant discharges.

- To adopt and implement standards for application to public lakes in the Water Quality Management Tier to prevent or minimize continuous pollutant sources that can contribute pollutants overland or through ground water to the lake from greater distances than the Shoreland Protection Tier.
- To adopt and implement standards for application to public lakes in the Scenic Resources Tier, including requirements for vegetative screening of buildings, building height limitations, and limits on tree and understory removal.
- To develop and adopt lake restoration plans for each of the municipality's developed lakes that has been identified as water quality impaired to restore, protect and, where possible, enhance lake water quality through management of pollutant sources in the Lake Watershed Tier. Total Maximum Daily Loads (TMDLs) adopted by the NJDEP to address known pollution problems may be used as lake restoration plans.
- To adopt standards for lake character and aesthetics for application to public lakes.
- To encourage increased public access to publicly-owned lakes, within the lake's carrying capacity and while maintaining the lake character.
- To discourage or control teardowns that result in altered lake-community character, and the potential loss of historic and cultural values, and to encourage community-supported limitations in lot coverage and building height for new construction.
- To establish and implement performance and development standards for shoreline uses which achieve compatibility among shoreline activities and nearby neighborhoods.
- To utilize recreational sites as opportunities to educate the public regarding the ecological value of the lake environs.
- To explore appropriate means to provide public recreation at the shoreline and on the water while ensuring retention of opportunities for passive recreation.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will establish standards for adoption by municipalities for the Shoreland Protection Tier, Water Quality Management Tier, and Scenic Resources Tier. The Highlands Council will also implement measures to encourage the maintenance of public and private lakes and the restoration of lake beds and downstream areas when lakes are drained.

Montville Township Plans and Regulations

The accompanying Lake Management Area Map identifies the locations of lakes greater than 10 acres in size and associated Lake Management Areas within Montville Township. As shown, there are two lakes greater than 10 acres in the Township, which include Lake Valhalla and the southern portion of the Boonton Reservoir. There are also Lake Management Areas in the Township that are associated with two other lakes in neighboring municipalities, including Deer Lake in Boonton and Surprise Lake in Kinnelon. All of Montville's lakes and Lake Management Areas, except for a small area south of Lake Valhalla, are located in the Preservation Area. Only the Lake Management Area surrounding Lake Valhalla is located within a Lake Community Sub-Zone.

The Township's NRI identifies, in both text and map form, the lakes included on the Lake Management

Area Map. However, because the NRI was prepared well before the adoption of the RMP, it does not address Lake Management Areas or the four tiers that comprise them. **Therefore, the NRI will need to be revised to reflect the locations and descriptions of Lake Management Areas, as contained in the RMP.**

Montville's master plan documents only address lakes and their surrounding areas to a limited extent. Both the 1993 Community Facilities and Open Space Plan Element and 1997 Master Plan Reexamination Report identify the area surrounding Surprise Lake (referred to as Sunrise Lake in the documents) as high priority for preservation. This area is said to consist of development that relies on septic systems, which presents a potential for pollution of the lake. Current data suggests that preservation of this area has not yet been achieved. The only other master plan document relating to lake management is the Township's Stormwater Management Plan Element, which contains general goals and recommendations for the minimization of pollutants in stormwater runoff from new and existing development. **In order to achieve consistency with the RMP, the Township must first prepare a Conservation Plan Element, which incorporates the relevant goals, policies and objectives contained in the RMP. Also, the Township will need to develop and adopt Lake Restoration Plans for each of the Township's developed lakes that has been identified as water quality impaired. These may be contained within the Conservation Plan Element.**

The Township's land use regulations also only address lake management to a limited extent. As noted above regarding Montville's Stormwater Management Plan Element, the stormwater management regulations contain standards for the minimization of pollutant sources, both over land or through ground water, however these standards are general and do not contain the specific requirements contained in the RMP. **As such, the Township must amend its land use regulations to require that all applications for development identify lakes and Lake Management Areas in accordance with the following categories: Shoreland Protection Tier, Water Quality Management Tier, Scenic Resources Tier, and Lake Watershed Tier. The Township must also revise its land use regulations to incorporate the applicable performance and development standards set forth in the RMP's goals, policies and objectives.**

h. Water Resources Availability

RMP Analysis

Sustaining the region's water resources is of significant statewide importance. The availability of water for human use is an essential factor in determining the capacity for growth and continued economic stability for existing development within and outside of the Highlands region. The availability of water for ecological purposes is critical to sustaining the aquatic ecosystems of streams, ponds, and lakes in the Highlands region.

The RMP provides a method for identifying the quantity of available water resources throughout the region. Net water availability was determined by: 1) estimating the ground water capacity within each HUC14 subwatershed of the Highlands Region; 2) multiplying ground water capacity by percentage thresholds for each Land Use Capability Zone based on environmental constraints and conservation objectives specific to each zone (the product is ground water availability); and 3) subtracting from ground water availability an estimate of maximum monthly consumptive and depletive ground water and surface

water use (the difference is net water availability).

The results of this analysis are shown in the Net Water Availability by HUC14 Map. Where Net Water Availability is positive, it is assumed there are water resources available beyond the existing demand. Where Net Water Availability is negative, the subwatershed is deemed a Current Deficit Area, meaning existing demand is exceeding sustainable supplies. For those subwatersheds deemed a Current Deficit Area, the Land Use Capability Water Availability Map displays net water available if conditional availability was granted.

The RMP goals, policies and objectives relating to Water Resources Availability are as follows:

- To develop Water Use and Conservation Management Plans for all subwatersheds that will set priorities for use of available water (where net water availability is positive) and will establish provisions to reduce or manage consumptive and depletive uses of ground and surface waters (where developed for Current Deficit Areas). In all cases, efficient use of water is required through water conservation and Low Impact Development Best Management Practices to make the best use of limited resources.
- To require that proposed new consumptive or depletive water uses within a Current Deficit Area only occur under the auspices of an approved Water Use and Conservation Management Plan, or through mitigation of the proposed use through a permanent reduction of existing consumptive and depletive water uses, ground water recharge in excess of Stormwater Management Rules, or other permanent means.
- To conditionally provide water availability (Conditional Water Availability) within a Current Deficit Area with appropriate standards regarding its use. A Current Deficit Area subwatershed that is primarily within the Protection Zone or Conservation Zone shall be assigned Conditional Water Availability not to exceed an aggregate of 1 percent of Ground Water Capacity. A Current Deficit Area subwatershed that is primarily within the ECZ shall be assigned Conditional Water Availability not to exceed an aggregate of 2 percent of Ground Water Capacity.
- To assign highest priority for the use of non-agricultural Net Water Availability or Conditional Water Availability within Protection Zone and Conservation Zone subwatersheds to uses that address threats to public health and safety from contaminated water supplies, cluster developments (subject to certain conditions), affordable housing projects where at least 10 percent of the units are affordable, and development permitted through a Highlands Redevelopment Area or takings waiver.
- To assign highest priority for the use of Net Water Availability or Conditional Water Availability within an ECZ to uses that address 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 percent of the units are affordable, or new areas for development that meet all other requirements of the RMP.
- To assign highest priority for agricultural water uses in the Conservation Zone to those Preservation Area uses that promote agricultural and horticultural uses and opportunities compatible with protection of the Highlands environment, and those Planning Area uses that promote the continuation and expansion of agricultural, horticultural, recreation and cultural uses and opportunities.
- To require the use of water conservation, recycling, and reuse methods and devices for any

redevelopment or development activity, including renovations to existing structures, to minimize consumptive water use.

- To ensure that areawide Water Quality Management Plans (WQMPs), Wastewater Management Plans (WMPs) or their amendments will not directly or indirectly cause or contribute to a Net Water Availability deficit, and will help mitigate any existing deficit.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council is currently working to prepare guidelines for the development of municipal Water Use and Conservation Management Plans.

Montville Township Plans and Regulations

As shown on the accompanying Net Water Availability by HUC14 Map, only the southwestern portion of the Township (Rockaway River Subwatershed) is considered to have positive net water availability. The majority of Montville Township has negative net water availability and is therefore deemed a Current Deficit Area. The subwatershed with the most severe deficit (-7.10 to 1.00 MGD) is that which encompasses the Township's Critical Water Resources (CWR) Overlay Districts.

The accompanying Land Use Capability Water Availability Map displays net water available if conditional availability were granted in the Township's Current Deficit Areas. The Map shows that all of the Current Deficit Area subwatersheds are assigned a conditional net water availability of 0.01 to 0.05 MGD, with the exception of the southeastern portion of the Township (Passaic River Upper Basin (Pompton River to Pine Brook) Subwatershed), which is assigned a conditional net water availability of 0.00 to 0.01 MGD

The Township's NRI only briefly addresses groundwater in Montville Township. The NRI identifies that the Township contains portions of three major buried valley aquifers found in the Central Passaic River Basin – Montville, Lincoln Park and Fairfield – and provides a map which illustrates the locations of these aquifers. However, the NRI does not address the availability of water resources in the Township, as required for Plan Conformance. **Therefore, the Township will need to review and verify the accuracy of the RMP data as it relates to Water Resources Availability, and amend the NRI to incorporate this data in both text and map form.**

Montville's master plan documents address water resources availability only as it relates to the water distribution system and the Towaco Valley Aquifer and aquifer recharge basin. The master plan indicates that the Township's primary water supply sources are three production wells, all of which are located in the Towaco Valley Aquifer and have a combined pumping capacity of 3.674 MGD. As noted above, this area is shown on the RMP's Net Water Availability by HUC14 Map as a Current Deficit Area, with a deficit of -7.10 to 1.00 MGD. Based upon an analysis of the Towaco Valley Aquifer, which was prepared in 1998 by Vincent Uhl Associates for the former Montville Township Municipal Utilities Authority (MUA), the master plan also designates the Towaco Valley Aquifer and aquifer recharge basin for a Critical Water Resources (CWR) Overlay District. The intention of the CWR District is to implement zoning and development control measures in an effort to help protect the Aquifer as a major source of potable water supply.

Although there are numerous other documents on groundwater resources that the Township has developed over the years, as detailed in the Township's Groundwater Exploration Summary Report, prepared in 2000

by Vincent Uhl Associates, only the recommendations concerning the CWR designation have been incorporated into Montville's master plan documents. These master plan documents do not address water resources availability to the extent prescribed in the RMP. **Therefore, in order to achieve consistency with the RMP, the Township must prepare a Conservation Plan Element, which incorporates the relevant goals, policies and objectives contained in the RMP. Also, the Land Use Plan Element must be revised to assign density/intensity of development in accordance with the relevant goals, policies and objectives contained in the RMP. Lastly, the Township will also need to develop Water Use and Conservation Management Plans for all subwatersheds that will set priorities for use of available water (where net water availability is positive) and establish provisions to reduce or manage consumptive and depletive uses of ground and surface waters (where developed for Current Deficit Areas). When preparing these documents, the Township should consult the groundwater exploration, assessment and development programs detailed in the 2000 Groundwater Exploration Summary Report, as well as those that have been prepared for the Township subsequent to that report.**

The Township's land use regulations set forth limitations for development within the CWR District based on two sub-districts. The Prime Aquifer CWR District corresponds with the Towaco Valley Aquifer and contains more stringent standards for development, whereas the Restricted Area CWR District corresponds with the aquifer recharge basin and contains slightly relaxed development standards. Both overlay districts impose additional restrictions on minimum lot sizes, minimum yard setbacks, and maximum coverage limits on underlying properties. In addition, both overlay districts place restrictions on the provision of new commercial and individual private residential wells in the area.

The Township's land use regulations also address water resources availability in that all applications for site plan and subdivision approval are required to submit an Environmental Impact Assessment, which evaluates the development's potential impacts on water supply and outlines steps to minimize any adverse impacts on this resource.

Although these land use regulations represent important actions taken within the Township's planning history, it appears that additional regulations will need to be incorporated in order to be consistent with the RMP. **Specifically, the Township must amend its land use regulations in conformance with the Water Use and Conservation Management Plans required for all subwatersheds, including the criteria for prioritizing and assigning conditional water availability based on Land Use Capability Zones, as set forth in the RMP. Also, the Township must adopt low impact development best management practices relating to water resources availability, including the use of water conservation, recycling, and reuse methods and devices for any redevelopment or development activity, including renovations to existing structures, to minimize consumptive water use.**

i. Prime Groundwater Recharge

RMP Analysis

The RMP focuses on a variety of measures to protect the replenishment of water resources in the Highlands region through ground water recharge and other means to ensure the maintenance of aquatic ecosystems and human water uses. The Highlands Council has mapped the best areas for recharge, defined as the areas in each subwatershed that have the highest recharge rates and, in total, provide 40 percent of

total recharge for that subwatershed. This is reflected in the Prime Ground Water Recharge Areas Map. Protection of these lands and the quality and quantity of recharge from them has a high priority in the RMP.

The RMP goals, policies and objectives relating to Prime Groundwater Recharge are as follows:

- To implement master plans and development review ordinances that protect Prime Ground Water Recharge Areas and minimize the potential for disruption of recharge in such areas by development.
- To establish minimum site design guidelines and permissible uses within a Prime Ground Water Recharge Area, including identification of land use categories or other activities posing sufficient risk of contamination that are not allowed within Prime Ground Water Recharge Areas.
- To apply standards for development in Prime Ground Water Recharge Areas. Specifically, 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 Slopes. Any development approved to occur in a Prime Ground Water Recharge Area shall provide an equivalent of 125 percent of pre-construction recharge volumes for the affected Prime Ground Water Recharge Area of the site. The disruption of Prime Ground Water Recharge Area shall be minimized through implementation of Low Impact Development Best Management Practices, limited to no greater than 15 percent of the Prime Ground Water Recharge Area on the site, and preferentially sited on that portion of the Prime Ground Water Recharge Area with the lowest ground water recharge rates and the lowest potential for aquifer recharge.
- To prohibit the expansion or creation of public water supply systems or public wastewater collection and treatment systems or community-based on-site wastewater facilities into Prime Ground Water Recharge Areas within the Protection or Conservation Zone.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide model municipal development regulations and master plan Elements for the protection of Prime Ground Water Recharge Areas. In addition, the Highlands Council will develop technical guidance for Low Impact Development and other Best Management Practices.

Montville Township Plans and Regulations

The accompanying Prime Ground Water Recharge Areas Map displays the areas within Montville Township that have the highest recharge rates, based on soil, precipitation, land cover and other factors. As shown, the areas defined as Prime Ground Water Recharge Areas in Montville, according to the RMP, correspond with the undeveloped portions of oversized lots and other relatively less developed areas of the Township. It is noted that this is very general mapping conducted by the Highlands Council based on open space, land and soil conditions and that local knowledge of geologic and hydrogeologic/ground water flow conditions suggests the need for further refinement of the Highlands mapping. **Therefore, as part of Plan Conformance, the Township will need to review and verify the accuracy of the RMP data as it relates to Prime Ground Water Recharge Areas. If necessary, RMP Updates may be required.**

As noted above with respect to water resources availability, the Township's NRI only addresses groundwater insofar as it identifies the location of Montville's three major aquifers. However, the NRI does not address the Township's prime ground water recharge areas, as required for Plan Conformance.

Therefore, the Township will need to amend the NRI to address Prime Ground Water Recharge Areas, in both text and map form.

Montville's Stormwater Management Plan Element and stormwater management regulations at Chapter 16.35 address groundwater recharge in the Township. However, since they were prepared prior to the adoption of the RMP, they are not quite consistent with that document. For example, the Stormwater Management Plan Element and associated regulations do not define Prime Ground Water Recharge Areas, as defined in the RMP, and therefore do not set forth specific requirements for these areas. In addition, whereas the RMP requires that any development in a Prime Ground Water Recharge Area provide an equivalent of 125 percent of pre-construction recharge volumes for the affected area of the site, the existing regulations only require that stormwater management measures maintain 100 percent (110 percent in the Prime Aquifer CWR District) of the average annual pre-construction recharge volume for the site. **As such, in order to achieve Plan Conformance, the Township's Stormwater Management Plan Element and stormwater management regulations must be revised to identify Prime Ground Water Recharge Areas and incorporate permitted uses, minimum site design guidelines and development standards for such areas, in accordance with the RMP. Also, the Township must prepare a Conservation Plan Element, which incorporates the relevant goals, policies and objectives contained in the RMP. Lastly, the Township must review the low impact development best management practices contained in its stormwater management regulations and, if necessary, amend them to address Prime Ground Water Recharge Areas.**

j. Water Quality

RMP Analysis

The RMP focuses on three aspects of water quality: 1) surface water quality, 2) ground water quality, and 3) wellhead protection. Each are discussed in more detail below.

Surface Water Quality: The Highlands Council, working with the NJDEP, prepared a map which displays the quality of surface water by HUC14 subwatershed throughout the Highlands region. This map, known as the Impaired Waters Overall Assessment by HUC14 Map, illustrates that waterbodies in 119 of the 183 subwatersheds in the Highlands region are impaired or threatened. The NJDEP, as required by the Federal Clean Water Act, has adopted regulatory, enforceable plans, known as Total Maximum Daily Loads (TMDLs) for many waterbodies to reduce pollutant levels and restore surface water quality.

Ground Water Quality: The NJDEP has identified (but not mapped) several categories of ground water contamination areas, which provide information on ground water quality impacts related to natural ground water quality, permitted discharges or contaminated site remediation. Classification Exception Areas and Well Restriction Areas are areas where the ground water quality standards are exceeded. Currently Known Extent Areas are those areas known to be compromised because the water quality fails to meet drinking water and/or ground water quality standards. Deed Notice Exhibits document known soil contamination at levels that may restrict the use of, or access to, a property because soil contamination can lead to impacts on ground water quality. There is no equivalent to the TMDL process for ground water quality, but several programs exist to regulate ongoing discharges, reduce the potential for accidental discharges, and restore ground water quality from past pollution events.

Wellhead Protection: A Wellhead Protection Area (WHPA) 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. A WHPA has three tiers which serve to mark the boundaries for priority areas for the protection of ground water quality. Tier 1 is a two-year time of travel (that is, the ground water within this tier flows to the well within a two-year time period); Tier 2 is equivalent to a five-year time of travel; and Tier 3 is equivalent to a twelve-year time of travel. The WHPAs for public community water supply systems in the Highlands region are depicted in the Wellhead Protection Areas Map.

The RMP goals, policies and objectives relating to Water Quality are as follows:

- To adopt and implement water quality protections, including: the prohibition of land uses that would increase pollutant loadings to waters for which TMDLs have been adopted by the NJDEP unless in compliance with the relevant TMDL; the insurance that new land uses draining to a stream designated as impaired but lacking a TMDL avoid increased pollutant loadings for the parameter or parameters for which a TMDL is required; and the requirement that WQMPs, WMPs, or amendments demonstrate that the proposed service area will not directly or indirectly support development that would be in violation of an adopted TDML.
- To adopt and implement stormwater management controls, which require recharge of clean stormwater rather than contaminated stormwater wherever feasible, pretreatment of contaminated stormwater wherever its recharge is required, and implementation of Low Impact Development and Agricultural Best Management Practices standards.
- To implement municipal master plans and development regulations which incorporate relevant TMDLs, additional water quality protection measures, and wellhead protection for public water supply wells and nitrate standards.
- To develop and implement 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.
- To revise municipal master plans and development regulations to address wellhead protection requirements, including the restriction of development activities which pose threats to the water quality of public water supply wells and the implementation of best management practices for development activities and existing land use activities.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide model municipal development regulations and master plan Elements to protect the quality of ground and surface water and address wellhead protection requirements. In addition, the Highlands Council will develop technical guidance for Low Impact Development and other Best Management Practices.

Montville Township Plans and Regulations

As shown on the accompanying Impaired Waters Overall Assessment by HUC14 Map, the majority of the Township, with the exception of the Montville Subwatershed in the northwestern portion of the Township, is deemed to have impaired water quality.

The accompanying Wellhead Protection Areas Map displays the locations of the Township's public water

supply wells and the associated two-year, five-year and twelve-year protection tiers. As shown, Montville Township contains five public water supply wells in the northern portion of the municipality. Three of these wells are Montville MUA wells located in the Towaco Valley Aquifer, which is protected by the Township's Critical Water Resources (CWR) regulations. The other two wells are the Plausha Park Water Company and Lake Valhalla wells. It is noted that Vincent Uhl Associates prepared a document for the Township's Environmental Commission in 2003, which established wellhead protection areas for the Montville MUA wells that are much larger than those contained in the RMP and follow the boundaries of the Towaco Valley Aquifer and aquifer recharge basin. **Therefore, as part of Plan Conformance, the Township will need to prepare RMP Updates reflecting the Township's wellhead protection areas for the Montville MUA wells, which are based on more detailed information than those contained in the RMP.**

The Township's NRI only addresses water quality to a limited extent. Regarding surface water, the NRI identifies, in both text and map form, Montville's major surface water bodies. It then goes on to discuss the overall water quality of these waters in terms of the NJDEP's "Classification of New Jersey Waters as Related to Their Suitability for Trout". Although this analysis is useful in assessing the quality of surface waters in the Township, it predates the NJDEP's 2006 "Integrated Water Quality Monitoring and Assessment Methods", which were used to develop the RMP's Impaired Waters Overall Assessment by HUC14 Map, and is therefore inconsistent with the RMP. Furthermore, although the NRI discusses environmentally contaminated sites, it does not address NJDEP's categories of ground water contamination areas, and is therefore inconsistent with the RMP. Lastly, the NRI provides no discussion on wellhead protection areas, and is therefore inconsistent with the RMP. **As such, in order to achieve Plan Conformance, the Township will need to review and verify the accuracy of the RMP data as it relates to Surface Water Quality, Ground Water Quality, and Wellhead Protection Areas, and amend the NRI to incorporate this data in both text and map form.**

Montville's Stormwater Management Plan Element is fairly consistent with the RMP's goals, policies and objectives relating to water quality. The Plan provides background discussion, goals, and design and performance standards for the protection of ground water and water supply resources, with reference to TMDLs and wellhead protection areas. However, the Plan contains a map of wellhead protection areas that appears to reflect the data contained in the RMP's Wellhead Protection Areas Map for the Montville MUA wells, as opposed to the data contained in the 2003 Wellhead Protection Program document prepared by Vincent Uhl Associates. The Plan also discusses a pending land use/build-out analysis of the Township that has not yet been finalized. The results of this analysis will provide data relating to pollutant loading coefficients by land cover and pollutant loads at full build-out. **Therefore, the Township should continue preparation of this land use/build-out analysis in order to provide an improved guide for water quality protection in the future. This will be conducted as part of Plan Conformance Modules 1 and 2, as discussed in the following chapter of this report. Also, the Township should amend the Stormwater Management Plan Element to reflect the wellhead protection area boundaries for the Montville MUA wells as shown in the 2003 Wellhead Protection Program document. In addition, the Township's master plan documents must be supplemented with a Conservation Plan Element, which incorporates the relevant goals, policies and objectives contained in the RMP.**

The Township's stormwater management regulations also appear to be generally consistent with the RMP's goals, policies and objectives related to water quality in that they require recharge of clean stormwater rather than contaminated stormwater wherever feasible, pretreatment of contaminated

stormwater wherever its recharge is required, and implementation of Low Impact Development Best Management Practices standards. **The Township should review the model stormwater management regulations once released by the Highlands Council and, if necessary, supplement its existing regulations with additional standards set forth in the model.**

As noted above, Vincent Uhl Associates prepared a document for the Montville Township Environmental Commission in October 2003 entitled Wellhead Protection Program. Although this document was not formally incorporated into the Township's master plan documents, it did set forth recommendations that were incorporated into the wellhead protection regulations adopted by the Planning Board. In terms of requirements, these regulations also appear to be generally consistent with the RMP, in that they set forth prohibited uses and require hydrogeologic studies for new development and redevelopment. However, these regulations only apply to the three wells located in the CWR District. Therefore, the Plausha and Lake Valhalla wells are not protected by this ordinance. **As such, the Township must amend its wellhead protection regulations to incorporate standards and restricted uses that are applicable to all of the Township's wellhead protection areas. Also, the Township's stormwater management regulations should incorporate Low Impact Development Best Management Practices standards which apply to all of the Township's wellhead protection areas.**

Lastly, it does not appear that the Township's land use regulations are consistent with the RMP's goals, policies and objectives related to TMDLs. There are currently no restrictions on land uses that would increase pollutant loadings to waters for which TMDLs have been adopted by the NJDEP, nor are there requirements that new land uses draining to a stream designated as impaired but lacking a TMDL avoid increased pollutant loadings. **Therefore, the Township must amend its land use regulations by incorporating water quality protection measures related to TMDLs, as set forth in the RMP.**

k. Public Water/Wastewater Utilities and Private Septic Systems

RMP Analysis

The Highlands Council developed three maps as part of the Land Use Capability Map Series that pertain to public water/wastewater utilities and private septic systems. The Land Use Capability Public Community Water Systems Map provides an overview of the areas of the Highlands region that are currently served by the public community water systems and their estimated net capacity. The Land Use Capability Domestic Sewerage Facilities Map provides an overview of the areas of the Highlands region that are currently served by the Highlands Domestic Sewerage Facilities and their estimated capacity. Highlands Domestic Sewerage Facilities include publicly-owned and investor-owned domestic wastewater treatment facilities. Finally, the Land Use Capability Septic System Yield Map identifies septic system yields by HUC14 subwatersheds, the results of which are based on the median nitrate concentration analysis illustrated in the Median Nitrate Concentration by HUC14 Map.

The RMP goals, policies and objectives relating to Public Water/Wastewater Utilities and Private Septic Systems are as follows:

- To prohibit 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, unless approved through a Highlands Applicability Determination (HAD) or a HPAWA waiver.

- To prohibit the creation or extension of public water supply systems, 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 to address threats to public health and safety from contaminated water supplies, cluster developments (subject to certain conditions), and development permitted through a Highlands Redevelopment Area or takings waiver.
- To allow for the creation or extension of public water supply systems or wastewater collection systems within the ECZ of the Planning Area to serve lands that are appropriate for designated TDR Receiving Zones, infill, redevelopment, to serve new areas for development that meet all other requirements of the requirements of the RMP, or to address the same provisions set forth above for the Protection Zone, the Conservation Zone and the Environmentally Constrained Sub-Zones.
- To require that new residential development served by public water supply systems and public wastewater collection and treatment systems be at a minimum density of ½ acre per dwelling unit for the developed part of the site (excluding wetlands, Highlands Open Waters buffers, and recreational space).
- To require that new non-residential development served by public water supply systems and public wastewater collection and treatment systems be designed to target a floor area ratio (FAR) of 0.84 for the developed part of the site, to the maximum extent feasible.
- To require the use of recycled or re-used water wherever possible, including aesthetic purposes and non-potable purposes such as fountains, golf courses, and other recreational, commercial or agricultural uses.
- To use the median nitrate concentrations in ground water as a basis for establishing septic system densities in the Planning Area (septic system densities in the Preservation Area shall rely on the NJDEP Highlands Preservation Area rules). The median nitrate concentrations for the Protection and Conservation Zones within the Planning Area are 0.72 mg/L and 1.87 mg/L, respectively. The median that shall be used, on a project-by-project basis, for the ECZ in the Planning Area is 2 mg/L. New residential development using septic systems where clustering or conservation design techniques are employed shall have a gross density 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.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide a model Utility Services Element for a municipal master plan, which will include water and wastewater utility components. However, where a County Wastewater Management Plan has been approved by the NJDEP that includes the necessary information, it may be incorporated by reference. The Highlands Council will also prepare model development standards regarding water and wastewater utility capacity, service areas, service densities, environmental protection requirements, and other relevant issues. In addition, the Council will provide a build-out analysis tool, which can be used by municipalities to determine the ability of a water supply or wastewater utility to serve additional development.

Montville Township Plans and Regulations

The accompanying Land Use Capability Public Community Water Systems Map and Land Use Capability Domestic Sewerage Facilities Map illustrate the areas within Montville Township that are currently served

by potable water utilities and sewer utilities, respectively. It is noted that the Township was required to verify the accuracy of this data during Plan Conformance Module 1 (Current Municipal Conditions & Build-Out Analysis) and found a number of discrepancies between the RMP maps and data provided by the Montville Township Water and Sewer Department. Corrected data was submitted to the Highlands Council as RMP Updates, which, as discussed in more detail in the next chapter of this report, are factual corrections to the data in the RMP. **The Township should continue to monitor and inform the Highlands Council of additional areas being actively served by water and sewer service providers.**

The accompanying Land Use Capability Septic System Yield Map identifies septic system yields in Montville by HUC14 subwatershed, the results of which are based on the median nitrate concentration analysis illustrated in the accompanying Median Nitrate Concentration by HUC14 Map.

As discussed in the previous chapter of this report, Montville Township contracts with the Township of Parsippany-Troy Hills for the majority of its sewer collection and treatment. Therefore, Montville is currently subject to the Township of Parsippany-Troy Hills Wastewater Management Plan (WMP). However, recognizing that this WMP is outdated, Morris County has been working with NJDEP since mid-2008 towards the preparation of a County-wide Wastewater Management Plan that will be in conformance with the New Jersey Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.) and Water Quality Management Planning Rules (N.J.A.C. 7:15-3.4). This revised Wastewater Management Plan is expected to be completed by September 15, 2009.

Based on discussions with Morris County officials, it is expected that although the County WMP will be consistent with NJDEP regulations, it will not be consistent with the RMP in that it will not remove properties within the Protection Zone, the Conservation Zone and the Environmentally Constrained Sub-Zones of the Planning Area from future sewer service areas. Instead, the County WMP will simply contain a notation that municipalities participating in Highlands Plan Conformance will prepare their own WMP in conformance with the provisions of the RMP. **Therefore, in order to achieve Plan Conformance, the Township will need to prepare its own, updated Wastewater Management Plan, which restricts future creation or extension of sewer service based on Land Use Capability Zones, as set forth in the RMP. The Township must also prepare a Utilities Plan Element, which incorporates the RMP goals, policies and objectives relating to water and wastewater. Lastly, the Township must prepare land use regulations specifying where new or expanded public water supply systems, public wastewater collection and treatment systems and community on-site treatment facilities can be provided, based on the RMP goals, policies and objectives.**

With regard to density and intensity of development, the Township needs to make major changes in order to be consistent with the RMP. For example, as set forth above, the RMP requires that new residential development served by public water supply systems and public wastewater collection and treatment systems are at a minimum density of ½ acre per dwelling unit for the developed part of the site. However, the majority of existing areas served by water and sewer in Montville are located in the R-27, R-43 and R-80 zone districts, all of which require lower density development than prescribed in the RMP. Also, the RMP requires that new non-residential development served by public water supply systems and public wastewater collection and treatment systems be designed to target a floor area ratio (FAR) of 0.84 for the developed part of the site. However, all of the Township's non-residential zone districts permit a maximum FAR of only between 15 and 25 percent, which is well under the 84 percent called for in the RMP. Finally, whereas the RMP requires that median nitrate concentrations in ground water be used as a

basis for establishing septic system densities in the Planning Area, and that such septic system densities vary by Land Use Capability Zone, this is not reflected in the Township's existing planning program. **Therefore, in order to be consistent with the RMP, the Township must amend its Land Use Plan Element and land use regulations to incorporate revised standards for density and intensity of development in zoning districts based on utility capacity and maximum septic system yields, as set forth in the RMP.**

l. Agricultural Resources

RMP Analysis

Agriculture is a vital component of the economy, culture and landscape of the Highlands region. It provides economic benefits through agricultural production and agri-tourism, provides a local food source to area residents, and helps maintain the rural character of Highlands communities. For purposes of identifying critical agricultural lands in the Highlands region, the Highlands Council examined the distribution, size and quality of existing farms. The most important agricultural resources were determined to be those farming landscapes that account for 250 acres or more of contiguous farmland, farms that include Important Farmland Soils, extent of the lands adjoining a farm that is in agricultural use, and concentrations of preserved farmland. These lands are spatially represented in the Agricultural Resource Area Map.

The RMP goals, policies and objectives relating to Agricultural Resources are as follows:

- To implement Agriculture Retention/Farmland Preservation Plan Elements and development regulations promoting preservation in Agricultural Resource Areas (ARAs) and limiting non-agricultural uses within the ARA to those uses that 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.
- To require mandatory clustering for residential development in an ARA, 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. The use of clustering shall preserve at least 80 percent of the total cluster project area in perpetuity in agricultural use or for environmental protection.
- To permit limited development, including family and farm labor housing in ARAs, which are 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.
- To prohibit the development of additional water and wastewater infrastructure in an ARA within the Conservation and Protection Zones of the Planning Area, unless it meets the provisions for water and wastewater utility creation and expansion in the RMP, and will maximize the preservation of agricultural lands within the ARA.
- To require any agricultural or horticultural development in the Preservation Area and the Planning Area which involves new agricultural impervious cover to the total land area of a Farm Management Unit of greater than 3 percent but less than 9 percent to develop and implement a Farm Conservation Plan.
- To require any agricultural or horticultural development in the Preservation Area and the Planning Area which involves new agricultural impervious cover to the total land area of a Farm

Management Unit of 9 percent or greater to develop and implement a Resource Management System Plan.

- To include an Agriculture Retention/Farmland Preservation Plan (AR/FPP) Element in municipal master plans and development regulations.
- To incorporate Right to Farm provisions into municipal master plans and development regulations where farmland preservation programs or a significant agricultural land base exist.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will develop Cluster/Conservation Design Development Conformance Guidelines for incorporation into municipal planning programs. Such guidelines will address required AR/FPP Elements and cluster ordinances. The Council will also provide a model Right to Farm ordinance.

Montville Township Plans and Regulations

According to the Agricultural Resource Area Map in the RMP, Montville Township does not contain any such areas and therefore the map is not included in this report. As part of Plan Conformance Module 1 (Current Municipal Conditions & Build-Out Analysis), the Township reviewed and identified those properties in the municipality assessed as Qualified Farms, revealing a number of farmland parcels scattered throughout the Township. **Therefore, the Township should verify that there are, in fact, no areas in the Township that meet the RMP definition of Agricultural Resource Area. If such areas are found within the municipality, the Township will need to pursue RMP Updates and revise its NRI, master plan, and land use regulations in accordance with the RMP goals, policies and objectives, as set forth above.**

If the analysis of Montville's farmland reveals that there are, in fact, no Agricultural Resource Areas, no planning program amendments would be required for Plan Conformance. **However, it is recommended that the Township consider whether an optional Agriculture Retention/Farmland Preservation Plan Element would be appropriate for Montville.** The Township may elect to prepare such a plan in order to acknowledge the one farm that has already been preserved in Montville (Lotta Lettuce Farm), as well as to promote preservation of the other existing farms in the Township. If so desired, the Township could incorporate such a plan into the Land Preservation and Land Stewardship Plan Element.

m. Historic, Cultural, and Archaeological Resources

RMP Analysis

Historic, cultural and archeological resources play a critical role in defining the character of the Highlands region. These resources will continue to attract people to the region and must be managed to take advantage of their contribution to economic vitality and a high quality environment for the future. In collaboration with the State Historic Preservation Office (SHPO), the Highlands Council prepared a baseline inventory of the 618 historic and cultural resources within the Highlands region. This includes 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. The inventory is illustrated in the Historic Preservation Map.

The RMP goals, policies and objectives relating to Historic, Cultural and Archaeological Resources are as follows:

- To include a Historic, Cultural and Archaeological Resource Protection Element in municipal master plans and development regulations and update the Historic and Cultural Resources Inventory through local development reviews.
- To adopt a local historic preservation ordinance with minimum standards for the protection and enhancement of historic, cultural, and archaeological resources listed in the Highlands Historic and Cultural Resources Inventory in municipal development regulations.
- To require that all applications for site plan or subdivision approval shall include identification of any resources listed on the Highlands Historic and Cultural Resources Inventory and, where the municipality has adopted an historic preservation ordinance, comply with minimum standards for the preservation of the affected resources.
- To establish a local advisory historic preservation body to review and make recommendations on applications for development or municipal permits which affect historic, cultural, and archeological resources listed on the Highlands Historic and Cultural Resources Inventory.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide model historic preservation standards for inclusion in municipal planning and regulatory documents, as well as other technical guidance in support of Plan Conformance activities.

Montville Township Plans and Regulations

The accompanying Historic Preservation Map identifies the locations of Montville's historic, cultural and archeological resources listed on the New Jersey or the National Register of Historic Places, deemed eligible for listing on the New Jersey or National Register, and/or have been issued a formal SHPO opinion. As shown, the Township contains two historic districts, including the Morris Canal and Jacobus Rural Historic Districts, as well as 31 historic properties. All of Montville's historic districts and properties are located in the Planning Area.

The Township's NRI does not address historic, cultural or archeological resources in Montville, however its 1993 Historic Preservation Plan Element does contain an inventory of such resources in the Township. Because this inventory includes all sites of local significance, whereas the RMP Historic Preservation Map only contains specific properties acknowledged by the SHPO, there is not surprisingly some discrepancies between the data. This is not a problem as long as the Historic Preservation Plan Element contains, at a minimum, all of the districts and properties listed on the RMP Map. However, it appears that this is not the case. For example, the RMP Map includes the Jacobus Rural Historic District, which is not listed in the Historic Preservation Plan Element. **Therefore, the Township must review its historic, cultural and archeological resources inventory to make sure it is up-to-date and, if necessary, prepare amendments to the Historic Preservation Plan Element. The Township's Historic Preservation Plan Element must also be amended to incorporate the relevant goals, policies and objectives contained in the RMP, as set forth above.**

The Township's ordinances are quite thorough as they relate to historic preservation. The zoning ordinance establishes two historic overlay districts, including the Morris Canal and Capstick Historic Districts. In addition, Chapter 2.72 establishes the creation and authority of the Township's Historic

Preservation Review Commission, and Chapter 16.48 sets forth the minimum standards for development applications in Montville's historic districts and sites. Specifically, such standards apply to the subdivision, demolition, relocation, exterior change, or new construction on a historic district or site. It appears that these ordinance sections are already consistent with the RMP's goals, policies and objectives relating to historic preservation and do not require further amendments to achieve Plan Conformance. **However, the Township should review the Highlands Council's model historic preservation standards upon release in order to ensure that Montville's existing ordinances are indeed consistent.**

n. Transportation

RMP Analysis

The Highlands transportation system is a complex network of roads, railways, and bridges that supports various modes of travel, including automobile, bus, rail, truck, bicycle and pedestrian. The major roadways and commuter rail lines in the Highlands region are shown on the Roadway Network Map and Transit Network Map, respectively.

One of the critical challenges of the transportation system is one of balancing regional transportation needs and environmental integrity. The region can achieve the goals outlined in the Highlands Act by encouraging a more compact mixed-use pattern for new development and redevelopment, creating more transportation choices, including mass transportation, bicycle, and pedestrian travel. The RMP supports Transit-Oriented Development as one example of a method that integrates mixed uses and transportation planning, by promoting more compact development in and around existing transportation infrastructure as an alternative to sprawl. The RMP also supports low impact development practices as a key to reducing surface runoff pollution, as well as context sensitive design as a strategy based on designing and planning projects in close collaboration with communities and stakeholders.

The RMP goals, policies and objectives relating to Transportation are as follows:

- To improve public safety through implementation of traffic calming measures in areas with high pedestrian activity.
- To provide for safe and efficient pedestrian connections and promote safe routes for children to travel to and from school.
- To promote more efficient use of existing road capacity by appropriate means, including increased bus, van, jitney, and car pool ridership.
- To require an evaluation of potential growth inducing effects such as substantial new land use, new residents, or new employment that could occur as a result of road improvements for increased motorized vehicle traffic capacity.
- To prohibit road improvements in areas for which a Growth Inducing Study demonstrates that proposed improvements do not support the RMP resource protection and smart growth policies and are likely to be growth-inducing for lands with limited or no capacity to support human development without a significant adverse impact on the Highlands ecosystem.
- To limit road improvements where roads are constrained by topography, forested lands, or the community character of land uses fronting on the road.
- To promote the use of mass transit and other alternative modes of transportation.

- To adopt a Circulation Plan Element in municipal master plans that coordinates with the Land Use Plan and demonstrates consistency with the RMP. Additionally, the Circulation Plan Element and associated development regulations shall facilitate the development of mixed land uses in locations that result in reduced average trip lengths, increase community and regional connectivity, and support existing development patterns, as well as include an evaluation of shared parking opportunities to support transit, commuter, commercial and mixed-use neighborhoods.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide a model Circulation Plan Element for adoption onto municipal master plans, model development standards relating to circulation, as well as other technical guidance in support of Plan Conformance activities.

Montville Township Plans and Regulations

The accompanying Roadway Network and Transit Network Maps depict the major roadways and public transportation opportunities within Montville Township. As shown on the Roadway Network Map, Montville's major roadways include Interstate Route 287 and U.S. Route 202 in the northern portion of the Township, and Interstate Route 80 and U.S. Route 46 in the southern portion of the Township. As shown on the Transit Network Map, the Township has one rail station and two neighboring park and ride areas. The Towaco Train Station is served by the New Jersey Transit Boonton Line, which extends from Netcong to Hoboken. The Map also shows that the Township is served by a number of public and private bus routes, with service along Interstate Route 80, Route 202, and Route 46/Bloomfield Avenue.

The Township's most recent Circulation Plan Element was prepared in 1993 and includes an inventory of roadways and public transportation options, a review of traffic volumes and accidents by roadway, and recommendations for new roads and roadway improvements. The promotion of mass transit is not addressed in the Plan. Pedestrian circulation is also not specifically addressed in the Plan, but is instead included in a separate Sidewalk/Walkway Plan Element, which was also most recently updated in 1993. The Sidewalk/Walkway Plan Element identifies all existing sidewalks, recommends that new sidewalks be installed in the higher density sections of the Township, and proposes three recreation paths. Given the large amount of growth that has occurred in Montville since the preparation of these documents, many of the recommendations contained therein are outdated. Also, because they were prepared well before the adoption of the RMP, they do not incorporate many of the RMP goals of promoting a multi-modal transportation system and limiting the demand for single-occupancy vehicle travel.

The exception, however, lies in the Towaco Center portion of the Township. In January 2008, the Township adopted the Towaco Center Master Plan as an amendment to the Land Use Element in an effort to create a mixed-use transit-oriented area in the vicinity of the Towaco Train Station. As part of this plan, a Circulation Plan was prepared for the area which focuses on enhancing pedestrian circulation. The plan sets forth specific recommendations for new sidewalks and sidewalk improvements, recreation paths, bicycle routes, crosswalk improvements, shared parking opportunities, additional park and ride lots, and "context sensitive" streetscape design improvements. The plan also recommends a number of traffic calming measures and steps to reduce pedestrian and vehicular conflicts. In sum, the Towaco Center Master Plan contains exactly the kind of policies and recommendations needed to be consistent with the RMP.

Towaco Center is a unique area with unique opportunities for Transit-Oriented Development, and therefore it is not expected that the Circulation Plan Element be amended to contain similar recommendations for every portion of the Township. However, the overall Circulation Plan should be improved to promote multi-modal transportation options and Transit-Oriented Development where appropriate, with a focus on improving vehicular circulation only where they are not. **Therefore, in order to be consistent with the RMP, the Township must prepare an up-to-date Circulation Plan, which incorporates the Towaco Center Circulation Plan recommendations, coordinates with changes to development density/intensity in the Land Use Plan Element, and addresses all of the goals, policies and objectives related to Transportation in the RMP.**

o. Redevelopment, Smart Growth, Housing and Community Facilities

RMP Analysis

As discussed throughout this report, future land use in the Highlands region is guided by the Land Use Capability Zones, which direct development away from environmentally sensitive and agricultural lands. However, the RMP also establishes a framework for future land use which involves the following:

- 1) The use of redevelopment in underutilized areas, brownfields and grayfields;
- 2) A smart growth approach to resource planning and management, which promotes land use patterns with a sense of community and place, multi-modal and alternative modes of transportation, sustainable economic development, and an equitable distribution of the costs and benefits of development;
- 3) The use of Low Impact Development, which is an Element of smart growth that uses a variety of landscape and design techniques to manage development activities to mitigate potential adverse impacts on the natural environment; and
- 4) Mechanisms to address the need for a full range of variety and choice in housing opportunities and access to community facilities, while protecting the character and natural resources of the region and acknowledging infrastructure limitations.

The RMP goals, policies and objectives relating to Redevelopment, Smart Growth, Housing and Community Facilities are as follows:

- To encourage Preservation Area redevelopment of sites with 70 percent or greater impervious surfaces or a brownfield in areas designated as Highlands Redevelopment Areas.
- To encourage redevelopment in the Conservation and Protection Zones and ECZ in the Planning Area of brownfields and grayfields and (and, in the ECZ, other previously developed areas) that have adequate water, wastewater, transportation capacity, and are appropriate for increased land use intensity or conversion to greenfields.
- To require identification of any development, redevelopment, and brownfield opportunities in the Land Use Plan Element of municipal master plans, as appropriate.
- To amend municipal development regulations and zoning to enable project implementation of local redevelopment initiatives that are identified under municipal master plans, consistent with RMP smart growth and Low Impact Development policies and objectives.

- To encourage new development in the ECZ in the form of “center-based” and mixed-use development, where desired by the municipality. Densities of five dwelling units per acre or more is encouraged.
- To incorporate programs for community and neighborhood design into municipal master plans and development regulations, including minimum requirements for the use of Low Impact Development and sustainable design practice to support affordable maintenance of housing, particularly affordable housing; regulations and guidelines advocating mixed-use development and redevelopment; regulations and guidelines that incorporate form-based zoning to support compact, walkable communities; increased opportunities for pedestrian and bicycle networks; and regulations and guidelines advocating shared parking, driveways, and other infrastructure in order to limit paved surfaces.
- To require that municipalities develop an Economic Plan Element of the municipal master plan, which provides strategies for achieving sustainable and appropriate economic development and identifies any development, redevelopment, and brownfield opportunities.
- To adopt municipal Low Impact Development Best Management Practices where disturbance of Highlands resources is proposed to avoid or minimize the net loss of Highlands resources. The RMP provides site-specific techniques relating to site design, building orientation, landscaping, water conservation, stormwater management, and ground water recharge.
- To require the identification of existing and planned community facilities and encourage shared service opportunities as part of the local Community Facilities Plan Element.
- To require that municipalities implement both the resource protection requirements of the RMP and the NJ Supreme Court’s doctrine that every municipality in a “growth area” has a constitutional obligation to provide a realistic opportunity for a fair share of its region’s present and prospective needs for affordable housing.
- To require that municipalities update and adopt a Housing Element, Fair Share Plan, and implementing ordinance(s), which evaluate and provide for alternate mechanisms to address affordable housing obligations where RMP resource protection standards restrict the ability of planned but not built sites to be developed for affordable housing.

In order to assist municipalities with the implementation of these goals, policies and objectives, the Highlands Council will provide model Economic and Community Facilities Plan Elements. The Council will also provide a Smart Growth Manual and Community Development Design Guidebook, which can be used by municipalities to develop standards for mixed-use, infill, historic resources, green building, cluster and lot-averaging, jobs-housing balance, redevelopment, affordable housing, community facilities, and other smart growth issues. Lastly, the Council will develop technical guidance for Low Impact Development and other Best Management Practices.

Montville Township Plans and Regulations

Redevelopment: With regard to redevelopment, the Township’s 2009 Periodic Reexamination Report states that there are no areas in the municipality that are presently contemplated for being designated as an ‘area in need of redevelopment’ pursuant to the Local Redevelopment and Housing Law (LRHL). However, the Township has taken steps to encourage redevelopment in a few specific areas as part of its long range planning process – namely in the Towaco Center/Train Station area and along the Route 46/Bloomfield Avenue corridor.

As already discussed, the Township adopted the Towaco Center Master Plan in January 2008 as an amendment to the Land Use Plan Element. The Towaco Center Master Plan was prepared in an effort to capitalize on the presence of the Towaco Train Station and redevelop the underutilized land uses in the area with new transit-oriented retail, office and multi-family residential uses. It assigns subject area properties into either the Towaco Center Core (TC1) or Transitional Area (TC2) Zones, which require different standards in order to create a vibrant, mixed-use center while integrating the area with surrounding residential neighborhoods. Since the adoption of the Towaco Center Master Plan and the associated ordinances, the Township has approved one mixed-use development at the corner of Route 202 and Jacksonville Road, and has received applications for several other developments within the area.

As discussed in the 2003 Periodic Reexamination Report, an analysis of the Route 46/Bloomfield Avenue corridor was prepared by this office in 1999, wherein certain segments of the corridor were found to comply with statutory criteria for redevelopment under the LRHL. Although the Township has not formally designated these segments as redevelopment areas, nor has the Planning Board incorporated a redevelopment plan into the Land Use Plan Element, the Township has taken a number of other steps to encourage redevelopment in the area. For example, in 2007, the Township created a new B-6 Business Zone District to help facilitate redevelopment of the GI Auto junkyard site along Route 46. This new zone district permits such uses as age-restricted housing, hotel/retail and residential mixed-use, and self-storage facilities, and requires that a portion of the tract be preserved as permanent open space. Also, in 2008, the Township amended the maximum coverage and floor area ratio requirements for the B-3 Zone in order to provide for suitable redevelopment along the Route 46/Bloomfield Avenue corridor.

As part of Plan Conformance, it is recommended that the Township continue to monitor and identify lands within the Township that are appropriate for redevelopment, in accordance with the goals, policies and objectives set forth in the RMP, and to encourage the redevelopment of these lands through Land Use Plan and development regulation amendments.

Smart Growth: The Township has made significant progress in the last few years towards meeting the RMP's goals, policies and objectives related to smart growth and low impact development. As already discussed, the Township took important action in 2008 with the adoption of the Towaco Center Master Plan, which is intended to revitalize the area surrounding the Towaco Train Station and create a mixed-use, transit-oriented area in a compact design. This Plan was prepared with the assistance of the New Jersey Office of Smart Growth, which awarded the Township a Smart Future Planning Grant. As such, the Plan incorporates a wide array of smart growth strategies, including regulations advocating mixed-use, transit-oriented development; provisions for the creation of affordable housing; a pedestrian and bicycle circulation plan; context sensitive design recommendations for circulation, parking, streetscape and architectural improvements; transportation management solutions that promote mass transit use; and sustainable design guidelines.

The Township also made progress with the adoption of its stormwater management regulations in 2006, which requires, to the maximum extent practicable, that minimum standards to control erosion, infiltration, ground water recharge, and stormwater runoff be met by incorporating low impact development best management practices strategies into site design. Examples of such low impact development strategies include the minimization of impervious surfaces and land disturbance, protection of natural drainage features and vegetation, provision of low-maintenance landscaping and vegetated open-channel

conveyance systems, and provision of other site design features to minimize the use or exposure of pollutants at the site.

Although these efforts have moved the Township considerably toward consistency with the RMP, there is still much that the Township must do to ensure that its entire planning program is in line with the RMP's goals, policies and objectives relating to smart growth and low impact development. **For example, as part of the Land Use Plan amendment process, the Township will need to analyze the ECZ portions of the municipality to determine if there are any other areas suitable for compact, mixed-use development and, if so, prepare master plans and development regulations encouraging their development in accordance with "center-based" design standards. Also, the Township must amend its master plan and development regulations to incorporate additional Low Impact Development and sustainable design standards that are not already required in the Township, such as green architecture, reuse of existing structures, indigenous landscaping, gray water reuse, solar energy use, and LEED (Leadership in Energy and Environmental Design) certification. The Township should consult the Highlands Council's Smart Growth Manual and Community Development Design Guidebook in both of these efforts. Lastly, the Township must prepare an Economic Plan Element of the master plan, which provides strategies for achieving sustainable and appropriate economic development and identifies any opportunities for infill development and redevelopment.**

Housing and Community Facilities: With regard to housing, the Township has a long history of providing for low- and moderate-income housing in accordance with the Council on Affordable Housing (COAH) regulations. As discussed in the previous chapter of this report, the Township's most recent Housing Element and Fair Share Plan was prepared in 1996 and addressed Montville's second round COAH obligation. The Plan concluded Montville's previous inclusionary zoning measures, implemented under its first round plan, more than satisfied the Township's additional obligation under the second round. The Township's affordable housing developments include Rachel Gardens (850 units), Montville Chase (393 units), Hunting Hills (100 units), Jade Mountain (100 units) and Longview Estates (707 units).

COAH adopted new rules in November 2004 for the implementation of their third round methodology, however these rules were subsequently determined, through litigation, to require modification. A new set of revised third round rules were adopted in 2008. Montville, due to its participation in Highlands Plan Conformance, was granted an extension to prepare a new Housing Element and Fair Share Plan. **The Township must prepare and adopt a new Housing Plan no later than December 8, 2009.**

The Township's most recent Community Facilities Plan Element was prepared in 1993 in conjunction with the Open Space Plan Element. It provides an inventory of Montville's existing community facilities, parks and open space and recommendations for long-range improvements and preservation. The 2003 Periodic Reexamination Report recommended that the Planning Board request input and current data on school enrollment and class sizes from the Board of Education, and assemble current data regarding recent additions to the Township's inventory of community facilities, however the Community Facilities Plan has not been updated since the 1993 document. **As such, the Township must prepare an updated Community Facilities Plan Element, which identifies existing and planned community facilities, and encourages shared service opportunities in accordance with the RMP's goals, policies and objectives.**

IV. STEPS TO BASIC PLAN CONFORMANCE

a. Basic versus Full Plan Conformance

The Highlands Council has created a two-step process for Plan Conformance. Under Full Plan Conformance, a municipality's planning program will reflect all elements of the RMP, as well as the results of specific environmental and planning analyses at the local level. However, in an effort to assist Preservation Area municipalities in achieving mandatory conformance within the 9 to 15 month deadline, the Highlands Council will grant "Basic" Plan Conformance once the municipality has satisfactorily completed all immediate mandatory conformance requirements.

Basic Plan Conformance does not relieve a municipality from the obligation to achieve Full Plan Conformance, but minimizes the upfront requirements and commits the municipality to fulfillment of the remainder in accordance with a Council-approved Action Plan and Implementation Schedule. Basic Plan Conformance will entitle the petitioner to all of the rights and benefits of Full Plan Conformance, provided that the Implementation Plan and scheduling requirements included therein are rigorously adhered to.

The process of Basic Plan Conformance is also available to the Planning Area, but is not mandatory and has no statutory deadline. However, municipalities in the Planning Area must adhere to the same December 8, 2009 deadline for Basic Plan Conformance in order to be eligible to receive extensions and adjusted growth projections from the Council on Affordable Housing, as previously described in this report. The Township of Montville has already adopted a "Notice of Intent" indicating its intent to pursue Plan Conformance for both the Preservation and Planning Areas by the December 8, 2009 deadline.

b. Key Requirements for Basic Plan Conformance

The following section details each of the key requirements for Basic Plan Conformance:

1. Build-Out Analysis

The Township is required to prepare a Build-Out Analysis, on a parcel-by-parcel basis, of the entire municipality. The analysis will involve a two-step process using models provided by the Highlands Council, which will correspond with Highlands Plan Conformance Modules 1 and 2, respectively.

In Module 1, the Highlands Council will provide the Township with current information available regarding developable lands, preserved lands, and areas served with potable water and wastewater utilities, which will then be verified for accuracy by the Township. Montville Township has already completed this step; revisions were submitted to the Highlands Council on March 6, 2009. Once the Highlands Council reviews the municipally-revised data, it will provide an updated Municipal Build-Out Geodatabase and local build-out Land Use Capability Map series capacity conditions based on existing local conditions.

In Module 2, the Township will then use the Municipal Build-Out Geodatabase and local build-out Land Use Capability Map series capacity conditions to evaluate the extent to which the build-out for developable lands under current municipal zoning will exceed available capacity for water

availability, public water and wastewater utilities, and septic system yield. This information will then be used to perform a “limiting factor” analysis regarding the developable lands and associated constraints. Overall, the exercise will highlight any conflicts between current municipal zoning and the RMP, and help establish appropriate zoning densities.

2. Environmental Resource Inventory

The Township is required to supplement its existing Natural Resources Inventory (NRI) by adoption of Highlands Resource Area Maps, along with descriptions of Highlands Resource categories as defined in the RMP. Highlands Resource categories include the following, where applicable: Forest Resources, Open Waters and Riparian Areas, Steep Slopes, Critical Habitat, Carbonate Rock Topography, Lakes, Ponds and Reservoirs, Water Resources, Agricultural Resources, Historic and Cultural Resources, Scenic Resources, and Infrastructure. As part of Plan Conformance Module 4, the Highlands Council will provide the Township with a model Highlands NRI, along with tabular data, which can be used by Montville to supplement its existing NRI.

3. Master Plan

The Township is required to adopt a “Highlands Element” as a supplement to the municipal Master Plan. The Highlands Element is required to contain the following components: Policies, Goals, and Objectives; Land Use Plan; Housing Plan; Conservation Plan; Utility Services Plan; Circulation Plan; Open Space Plan; Agriculture Retention/Farmland Preservation Plan; Community Facilities Plan; Economic Plan; Historic Preservation Plan; Relationship of Master Plan to State/Regional/Local Plans; and an optional Development Transfer Plan.

As part of Plan Conformance Module 5, the Highlands Council will provide municipalities with a model Highlands Element for Basic Plan Conformance, which the Township may adopt as a supplement to its existing Master Plan. The Township may either retain the Highlands Element as a single document in the Master Plan, with the understanding that all portions of previously adopted plan components inconsistent therewith would be repealed, or the Township may individually amend each plan component to reflect the contents of the Highlands Element.

What follows is a more detailed discussion of the Basic Plan Conformance requirements for each individual component of the Highlands Element:

(a) Policies, Goals, and Objectives

The Township is required to adopt all broad-based, municipally-relevant Goals, Policies, and Objectives contained in the RMP, modified to apply at the local level. In all cases where the Goals, Policies, and Objectives are modified to apply to the local level, the resulting policies and objectives must be no less stringent than those of the RMP. Where the Goals, Policies, and Objectives in the RMP are discretionary, the Township may choose which to incorporate, if any.

(b) Land Use Plan

For the Land Use Plan component, the Township is required to adopt all applicable Highlands Land Use categories, including Areas, Zones, and Sub-Zones. The Township is also required to adopt the complete Land Use Capability Map (LUCM) series, which includes the Land Use Capability Zone Map, Land Use Capability Water Availability Map, Land Use Capability Public Community Water Systems Map, Land Use Capability Domestic Sewerage Facilities Map, and Land Use Capability Septic System Yield Map. Additionally, the Township must adopt, by reference, Highlands water and wastewater management provisions as the major criteria for assessing proposed density/intensity of development. The Township is also required to incorporate the basis for cluster development standards into the municipal Land Use Plan. Lastly, the Township is required to prepare an up-to-date developed land inventory map.

(c) Housing Plan

For the Housing Plan component, the Township is required to adopt all applicable RMP Goals, Policies, and Objectives as they relate to Housing, modified to apply to the local level. Additionally, the Township must recognize and cross-reference to the existing housing plan, adopting a statement of commitment to: a) satisfying the municipality's constitutional obligation to provide for affordable housing; and b) doing so in accordance with the revised policies, goals and objectives.

As part of Highlands Plan Conformance Module 3, the Township will be required to prepare a new Housing Element and Fair Share Plan addressing its 3rd Round requirements. This plan must incorporate the results of the Build-Out Analysis prepared as part of Plan Conformance Modules 1 and 2 in the determination of housing and employment projections for the Township through 2018.

(d) Conservation Plan

For the Conservation Plan component, the Township is required to adopt Highlands Resource Area Maps, as applicable, as well as Highlands Resource categories as defined in the RMP. The Township is also required to adopt specific applicable RMP Goals, Policies, and Objectives, as they relate to each of the Highlands Resource categories, modified to apply at the local level. Additionally, the Township will need to recognize and provide cross-reference to any applicable municipal resource maps, data, studies, environmental inventories, etc., that supplement, enhance, or refine Highlands resource information. Lastly, the Township is required to incorporate the basis for requiring Low Impact Development and use of Best Management Practices throughout resource areas.

Since the Conservation Plan is intended to be based on the Highlands Natural Resource Inventory (NRI), much of the required information set forth above can simply be duplicated from this previous effort.

(e) Utility Services Plan

For the Utility Services Plan, the Township is required to adopt all applicable RMP Goals, Policies, and Objectives as they relate to Utilities, modified to apply to the local level. The Township is also required to recognize adherence to adopted Highlands water and wastewater technical guidance documents, and emphasize that existing water and sewer service will not be extended: a) in the Preservation Area, unless approved through a Highlands Preservation Area Approval (HPAA) pursuant to N.J.A.C. 7:38 or deemed exempt from the Highlands Act, or b) in the Protection and Conservation Zones, unless in conformance with the RMP requirements. Lastly, the Township is required to incorporate into the Utility Services Plan the basis for preparation and adoption of a water deficit management plan, wellhead protection plan, septic system management/maintenance plan, and stormwater management plan, to the extent that these do not exist or require amendment to gain consistency with the RMP.

(f) Circulation Plan

For the Circulation Plan, the Township is required to adopt all applicable RMP Goals, Policies, and Objectives as they relate to Circulation, modified to apply to the local level. In addition, the Township must ensure coordination with the Land Use Plan and incorporation of smart growth principles.

(g) Open Space Plan

For the Open Space Plan, the Township is required to adopt all applicable RMP Goals, Policies, and Objectives as they relate to Recreation and Open Space, modified to apply to the local level. In addition, the Township must cross-reference to any existing Open Space Plan. Lastly, the Township is required to adopt an up-to-date, mapped Recreation and Open Space Inventory. The identification of these properties has already been done as part of Montville Township's Highlands Plan Conformance Module 1; they will simply need to be incorporated as part of the overall plan.

(h) Agriculture Retention/Farmland Preservation Plan (if applicable)

An Agriculture Retention/Farmland Preservation Plan Element is required to be adopted where applicable. In such cases, the municipality is required to adopt all applicable RMP Goals, Policies, and Objectives as they relate to Agricultural Resources, modified to apply to the local level. In addition, the municipality must cross-reference to any existing Farmland Preservation Plan, incorporate a commitment to the Right to Farm Act, and, if applicable and desired, incorporate a commitment to the protection and promotion of farm labor housing. Lastly, the municipality must also adopt an up-to-date, mapped inventory of preserved farmland, unless an existing inventory map remains current.

As discussed in the previous chapter of this report, the Township needs to determine whether an Agriculture Retention/Farmland Preservation Plan Element would be appropriate for Montville. It does not appear that such an Element would be required for Montville's Plan Conformance, given that no areas of the Township are designated as an Agricultural Resource Area or Agricultural Priority Area in the RMP. However, the Township may elect to prepare a Farmland Preservation Plan, given that it does have one preserved farm property as well as

several non-preserved farms within its borders. Efforts to preserve additional farmland in the Township will require the creation of this plan element.

(i) Community Facilities Plan

For the Community Facilities Plan, the Township is required to adopt all applicable RMP Goals, Policies, and Objectives as they relate to Community Facilities, modified to apply to the local level. In addition, the Township must incorporate energy efficiency goals and consideration of shared services.

(j) Economic Plan

For the Economic Plan, the Township is required to adopt all applicable RMP Goals, Policies, and Objectives as they relate to Sustainable Economic Development, modified to apply to the local level. In addition, the Township must provide for coordination with Highlands Council eco-, agri- and heritage tourism programs, where applicable.

(k) Historic Preservation Plan (if applicable)

A Historic Preservation Plan Element is required to be adopted where applicable. In such cases, the municipality is required to adopt all applicable RMP Goals, Policies, and Objectives as they relate to Historic, Cultural, Archeological, and Scenic Resources, modified to apply to the local level. In addition, the municipality must include listing and discussion of any historic, cultural, archaeological, and scenic resources listed in Highlands Historic, Cultural, Archaeological, and Scenic Resources Inventories.

As discussed in the previous chapter of this report, a review of the RMP indicates that a Historic Preservation Plan Element is indeed required for Montville Township, given that it contains a number of properties listed on the Highlands Historic, Cultural, Archaeological, and Scenic Resources Inventories.

(l) Relationship of Master Plan to Other Plans, Including RMP

The Township is also required to provide a policy statement indicating that proposed development and/or redevelopment in the municipality, as set forth in the municipal Master Plan, is consistent with the RMP.

(m) Development Transfer Plan (optional)

At the Township's discretion, it may also prepare and adopt a Development Transfer Plan Element. Creation of a Development Transfer Plan Element would be the first step towards voluntary participation in the Highlands TDR Program, which is intended to preserve sensitive resources by permitting the transfer of development rights from areas identified for preservation (Sending Zones) to areas more appropriate for increased growth (Receiving Zones).

As previously discussed in this report, the RMP identifies a number of areas in Montville as Potential Areas for Voluntary TDR Receiving Zones, which are further categorized into Greenfield Opportunities and Redevelopment and Infill Opportunities. The Township should, therefore, consider the potential benefits and drawbacks of Montville’s voluntary participation in the Highlands TDR Program. If the Township decides to pursue voluntary participation, the Development Transfer Plan Element would need to incorporate all applicable RMP Goals, Policies, and Objectives as they relate to Landowner Equity, modified to apply to the local level.

4. Land Use Ordinances/Development Regulations

The Township is required to adopt a “Highlands Regulations” section as a supplement to the municipal Zoning/Land Development Ordinances. The Highlands Regulations are required to include the following sections: Definitions; Zone Districts and District Regulations; Application Submission Checklists; Notice Requirements; Highlands Council Review; Resource Area and Supporting Regulations; and Application Procedures.

As part of Plan Conformance Module 6, the Highlands Council will provide municipalities with sample Highlands Regulations, which the Township may adjust as needed for municipal applicability. Alternatively, the Township may propose specific revisions to existing regulations to achieve conformance with the RMP.

What follows is a more detailed discussion of the Basic Plan Conformance requirements for each individual section of the Highlands Regulations:

(a) Definitions

The Township is required to adopt definitions of general terms specific to the RMP, including “Highlands Council”, “areas”, “zones” and “sub-zones”. The Highlands Council will provide the Township with these definitions so as to avoid interference with existing municipal zoning definitions. Where follow-up ordinances applicable only to non-exempt development require specific terms such as “impervious coverage”, Highlands definitions will be incorporated therein along with clear indication that they pertain only to the ordinance in question.

(b) Zone Districts and District Regulations

The Township is required to adopt a caveat applicable to existing municipal zone districts and district regulations, indicating that NJDEP Preservation Area Rules and Highlands RMP Provisions will apply with respect to non-exempt development. Also, it must be noted that water and/or wastewater treatment availability and limitations on utility extensions may affect lot size and lot coverage requirements.

(c) Application Submission Checklists

The Township is required to amend its application submission checklist ordinance to require that any application for development include the following items: 1) For applicants in the

Preservation Area claiming an exemption from the Highlands Act, a Highlands Applicability Determination from the NJDEP; 2) For applicants in the Planning Area claiming an exemption from the Highlands Act, a Highlands Planning Area Exemption Determination from the Highlands Council; 3) For non-exempt development applications in the Preservation Area, a Highlands Preservation Area Approval (HPAA) or HPAA with waiver from the NJDEP; 4) For all non-exempt development applications, a Highlands Consistency Determination from the Highlands Council indicating that the proposal is consistent with the RMP or can be revised to achieve consistency via specific changes outlined therein; and 5) For non-exempt development applications having received a Consistency Determination indicating that specific revisions are required to achieve consistency, a certification from the applicant's professional(s) affirming that the plans have been revised to specifically address the inconsistencies identified by the Highlands Council and that to the best of his/her knowledge, they have achieved consistency.

(d) Notice Requirements

The Township is required to amend its notice requirements to require the following: 1) that, for any non-exempt development applications, the applicant shall provide notice to the Highlands Council at least 10 days prior to the date on which the application is scheduled for consideration by the Planning or Zoning Board; 2) that such applications be deemed complete prior to scheduling, and that a copy of the complete application be sent to the Highlands Council along with such notice; and 3) that the applicant provide copies of any subsequent revisions to such applications to Highlands Council at the same time these are provided to the reviewing board.

(e) Highlands Council Review

The Township is required to include a requirement that, in the case of any non-exempt development applications, the reviewing board shall provide a certified copy of the fully-executed resolution memorializing its final decision in the matter to the Highlands Council within 10 days of its adoption.

(f) Resource Area and Supporting Regulations

The Township is required to adopt, at minimum, Highlands ordinance requirements regulating water and wastewater, Highlands resources, and all Highland Resource Areas located within the municipality. These will apply to all non-exempt development. Resource regulations will require that development applications include maps and plans identifying and delineating Highlands resources, and that application approvals be conditioned upon imposition of conservation easements to protect them, to the extent that the reviewing board's final decision does not approve their disturbance. Resource area regulations will ultimately cover the following, where applicable: steep slopes, forest areas, open waters and riparian areas, ground water recharge management, wellhead protection, stormwater management, Right to Farm, critical habitat, carbonate rock areas, agricultural resources, lake management, Low Impact Development, and historic, cultural, and scenic resources.

(g) Application Procedures

The Township is required to adopt procedural requirements applicable to resource area applications and review thereof. Also, the Township must prepare municipal application forms (as needed) and fee/escrow ordinance amendments (as appropriate), and determine and assign responsibility for review of application packages pertinent to these areas by the qualified individual(s).

5. RMP Updates

The Highlands Council recognizes that the various maps, data and technical information contained in the RMP was created at a regional scale and that new, updated or additional information may be available at the county or municipal level. Therefore, the RMP Updates Program was designed to allow counties and municipalities to submit factual revisions, corrections or updates to the RMP. For Basic Plan Conformance, the Township is required to prepare a list of proposed RMP Updates, along with the justification for each.

Examples of RMP Updates would be development or other land use changes that have occurred since preparation of the LUCM Series, updates and corrections to Existing Areas Served for water and wastewater utilities, additional preserved lands, topographic mapping enabling a more precise delineation of steep slopes, modifications to Highlands resource boundaries, and updates regarding transportation facilities. As noted in the previous chapter of this report, the Township has already submitted several RMP Updates to the Highlands Council as part of its Plan Conformance Module 1 analysis. Proposed RMP Updates will be reviewed by the Highlands Council for accuracy and used to determine whether changes to the LUCM Series are appropriate.

6. Map Adjustments

The Map Adjustment Program was designed to allow for the exchange of additional planning information between the Highlands Council and counties/municipalities in order to ensure sound regional planning in support of the RMP and the Highlands Act. More specifically, a Map Adjustment is a Council-approved adjustment of the Land Use Capability Zone Map designations and shall only be undertaken after other means, such as RMP Updates and Highlands Act waivers and exemptions, have proven inadequate to address the underlying planning issue. For Basic Plan Conformance, the Township is required to submit requests for Map Adjustments, if applicable, along with the justification for each.

An example of a Map Adjustment might include modification of a Conservation Zone immediately adjacent to an Existing Community Zone (ECZ), where utilities and water availability could support extension of the ECZ to accommodate a fully conforming TDR Receiving Zone.

7. Municipal Self-Assessment and Implementation Schedule

At the time the Township submits its Petition for Basic Plan Conformance, it is required to include a Municipal Self-Assessment (MSA) Report. The MSA Report must list and discuss all changes to the Township's planning program that will remain necessary after Basic Plan Conformance in order to achieve Full Plan Conformance. The MSA Report must also include a proposed

Implementation Schedule, which indicates the timeframe for anticipated completion of each outstanding item leading to Full Plan Conformance.

As part of Plan Conformance Module 7, the Highlands Council will provide municipalities with a sample resolution (required for the Preservation Area) and a sample ordinance (required for the Planning Area) for municipal adoption, which, when accompanied by the rest of the aforementioned key requirements, will constitute a complete Petition to the Highlands Council for Plan Conformance.

V. ANTICIPATED COSTS & PROJECT TIMEFRAMES

As outlined in the previous chapter of this report, the Township of Montville has until December 8, 2009 to complete the steps necessary for Basic Plan Conformance and submit its Petition to the Highlands Council. The following table details each of the key requirements for Basic Plan Conformance and the estimated deadline and cost associated with each. The table also identifies the base amount of grant funding available from the Highlands Council for each requirement.

**Estimated Timeframes and Costs for Basic Plan Conformance
Township of Montville**

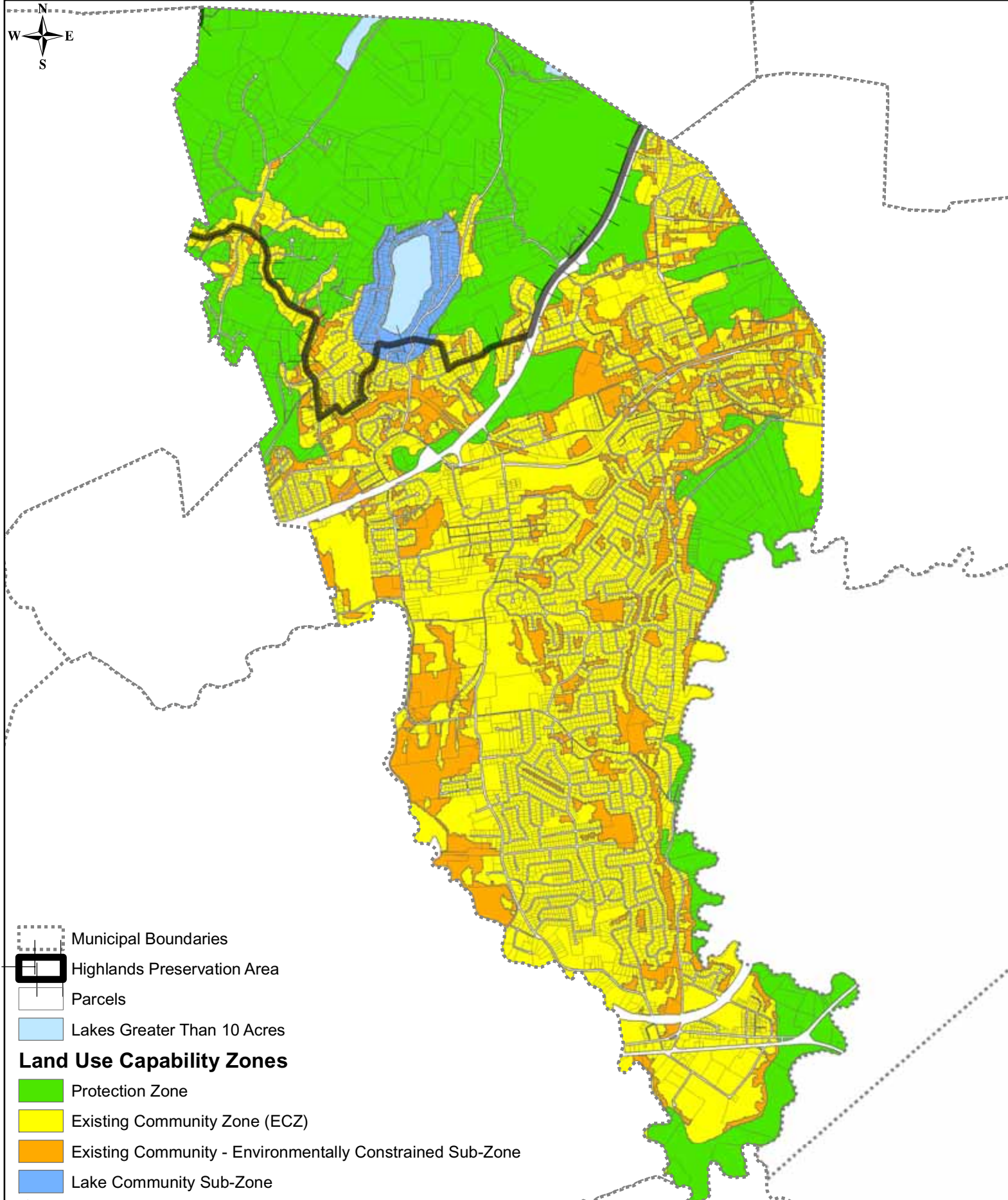
Requirement	Estimated Deadline*	Estimated Cost	Highlands Base Grant Amount
Conduct first step of Highlands Build-Out Analysis (Module 1) and submit to Highlands Council for review	March 6, 2009 (completed)	\$21,000	\$15,000
Conduct second step of Highlands Build-Out Analysis (Module 2) and submit to Highlands Council for review	May, 2009	\$10,000	\$10,000
Prepare draft Housing Element and Fair Share Plan (Module 3) and submit to Highlands Council for review	December, 2009	\$10,000	\$7,500
Prepare draft Environmental Resource Inventory (Module 4) and submit to Highlands Council for review	June 30, 2009	\$2,000	\$2,000
Prepare draft Highlands Master Plan Element (Module 5) and submit to Highlands Council for review	October, 2009	\$5,000	\$2,500
Prepare draft Highlands Development Regulations (Module 6) and submit to Highlands Council for review	November, 2009	\$5,000	\$5,000
Adopt Housing Element and Fair Share Plan	November, 2009	\$1,000	--
Prepare Municipal Self-Assessment (MUA) and Implementation Schedule (Module 7) and submit with draft plans, ordinances, RMP Updates, Map Adjustments, and Petition for Plan Conformance to Highlands Council	December 8, 2009	\$8,000	\$8,000
Submit Petition for Substantive Certification to COAH	December 8, 2009	\$1,000	--

* Except where **bold**, which indicates mandatory deadline set by the Highlands Council.

APPENDICES

APPENDIX A-1 : MAPS

Land Use Capability Zone Map
Potential Voluntary TDR Receiving Zones Map
Forest Resource Area Map
Forest Cover Integrity Map
Highlands Open Waters Map
Riparian Areas Map
Riparian Integrity by HUC14 Map
Steep Slope Protection Areas Map
Critical Wildlife Habitat Map
Significant Natural Areas and Vernal Pools Map
Preserved Lands Map
Conservation Priority Area Map
Lake Management Area Map
Net Water Availability by HUC14 Map
Land Use Capability Water Availability Map
Prime Ground Water Recharge Areas Map
Impaired Waters Overall Assessment by HUC14 Map
Wellhead Protection Areas Map
Land Use Capability Public Community Water Systems Map
Land Use Capability Domestic Sewerage Facilities Map
Land Use Capability Septic System Yield Map
Median Nitrate Concentration by HUC14 Map
Historic Preservation Map
Roadway Network Map
Transit Network Map



 Municipal Boundaries


 Highlands Preservation Area

 Parcels

 Lakes Greater Than 10 Acres

Land Use Capability Zones

 Protection Zone

 Existing Community Zone (ECZ)

 Existing Community - Environmentally Constrained Sub-Zone

 Lake Community Sub-Zone

Dwg. Title
Land Use Capability Zone Map

Project No.
1946.51

Dwg. Date
4/9/09

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RW

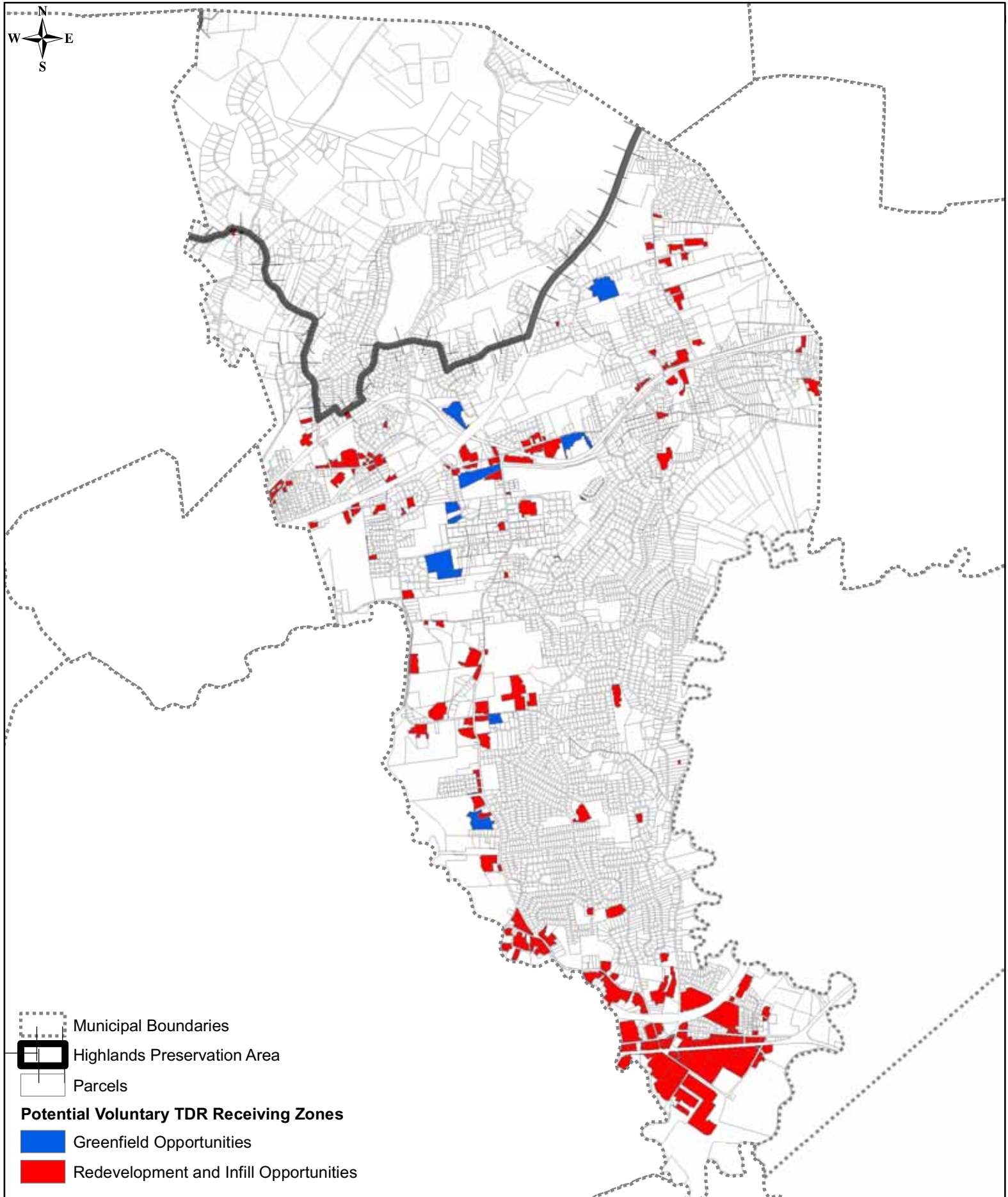
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Drawing No.
LUCM1



-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
- Potential Voluntary TDR Receiving Zones**
-  Greenfield Opportunities
-  Redevelopment and Infill Opportunities

Dwg. Title
Potential Voluntary TDR Receiving Zones Map

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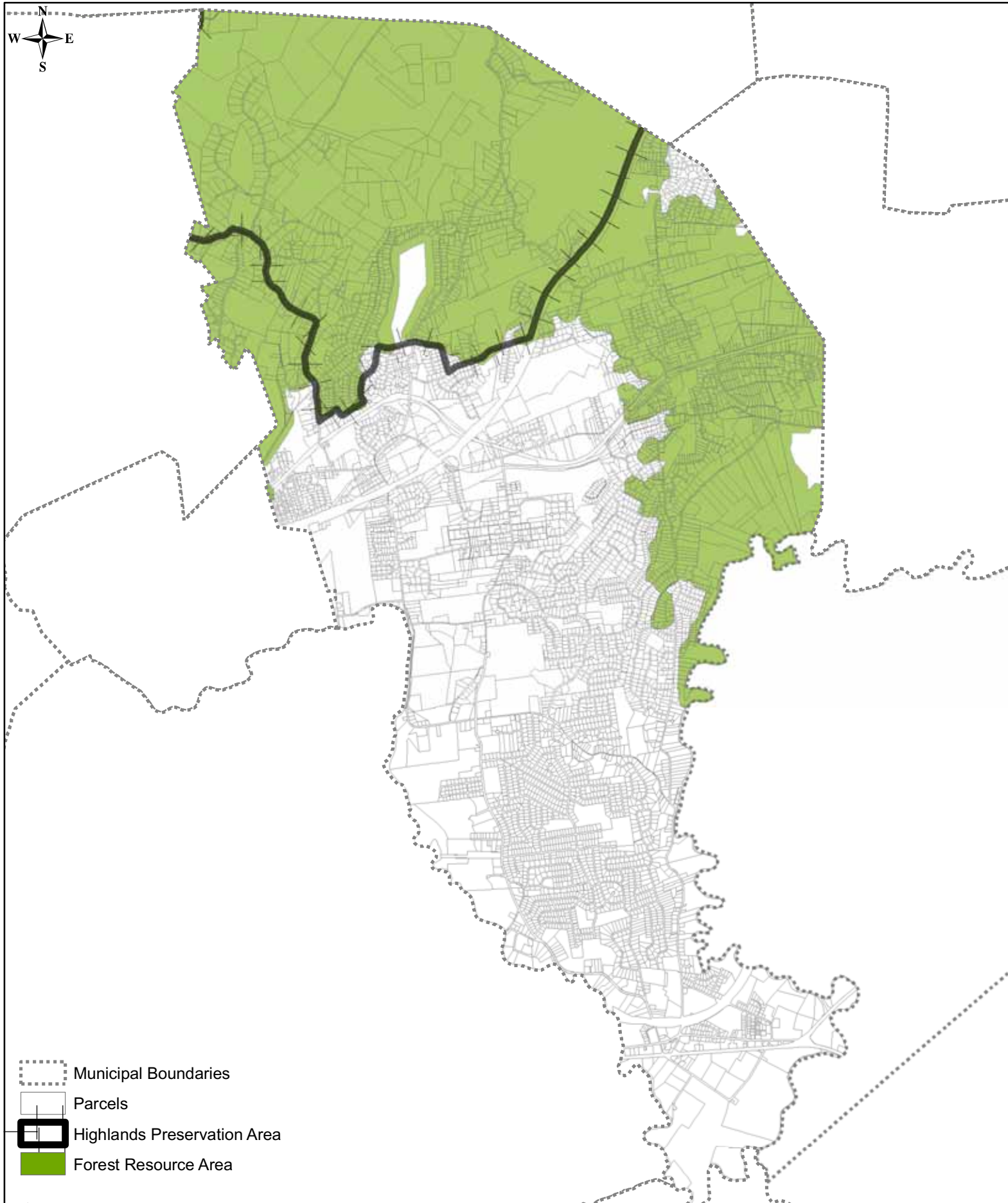
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


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-  Municipal Boundaries
-  Parcels
-  Highlands Preservation Area
-  Forest Resource Area

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Forest Resource Area Map

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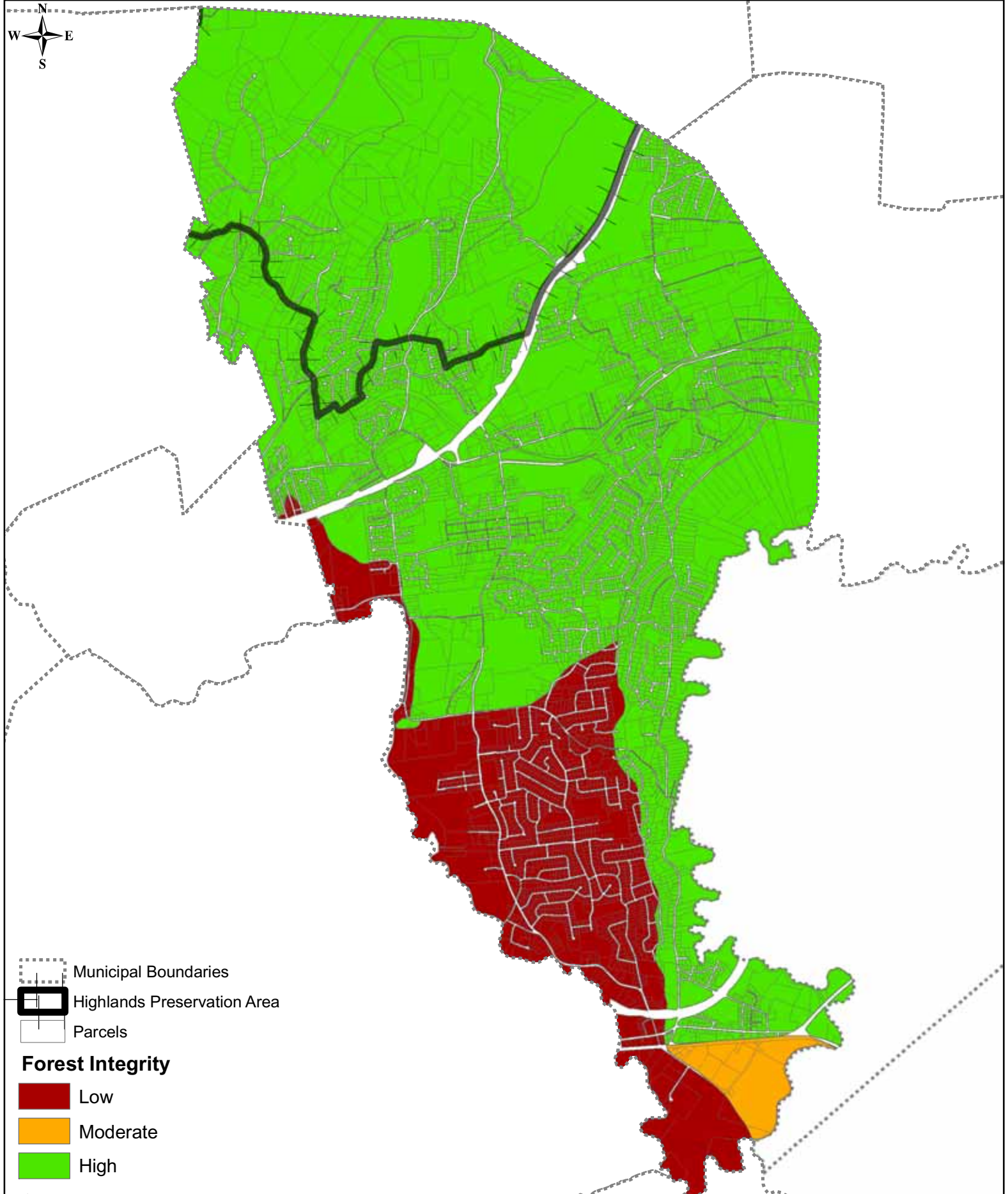
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-  Highlands Preservation Area
-  Parcels
- Forest Integrity**
-  Low
-  Moderate
-  High

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Forest Cover Integrity Map

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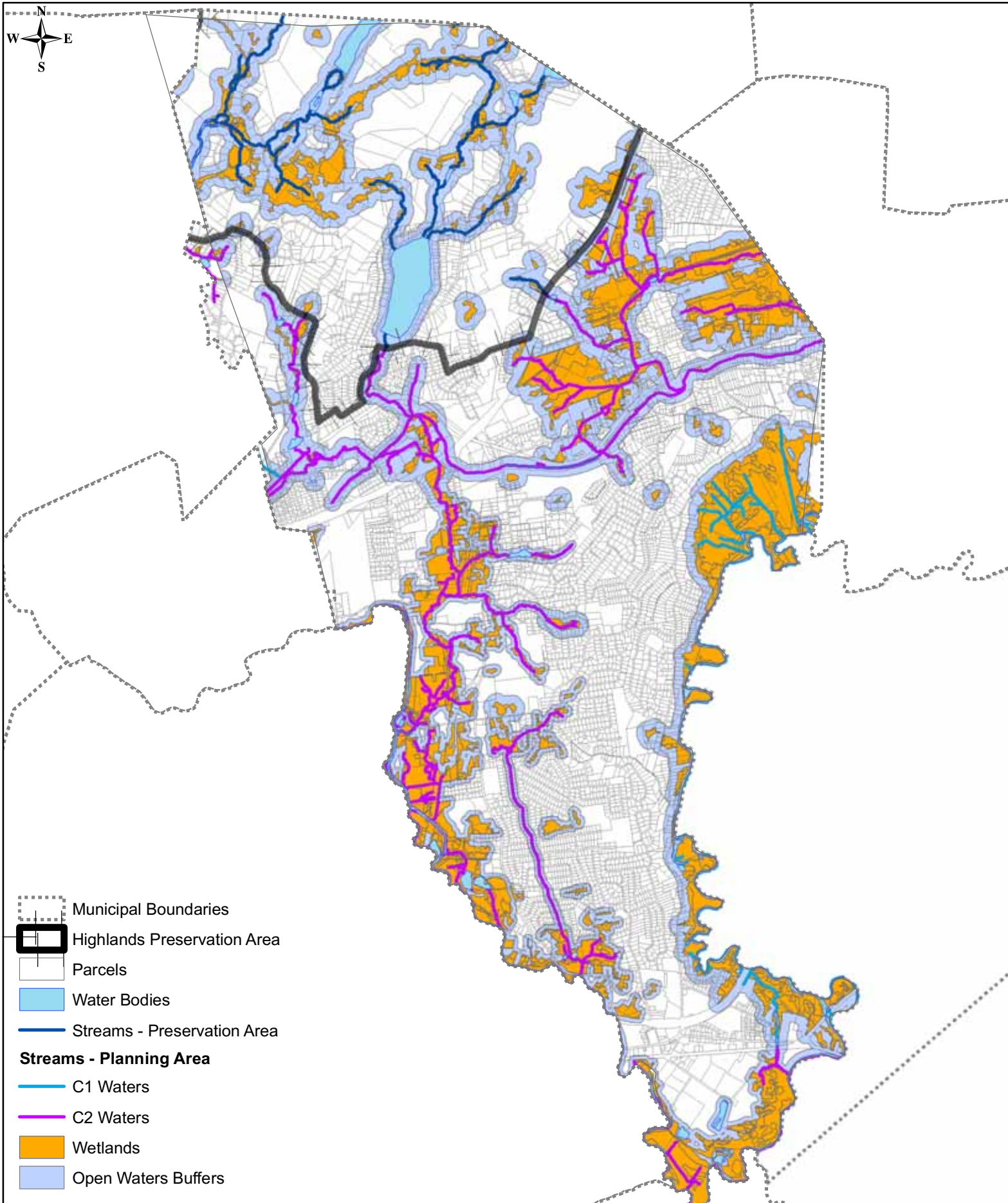
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-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  Water Bodies
-  Streams - Preservation Area
- Streams - Planning Area**
-  C1 Waters
-  C2 Waters
-  Wetlands
-  Open Waters Buffers

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Highlands Open Waters Map

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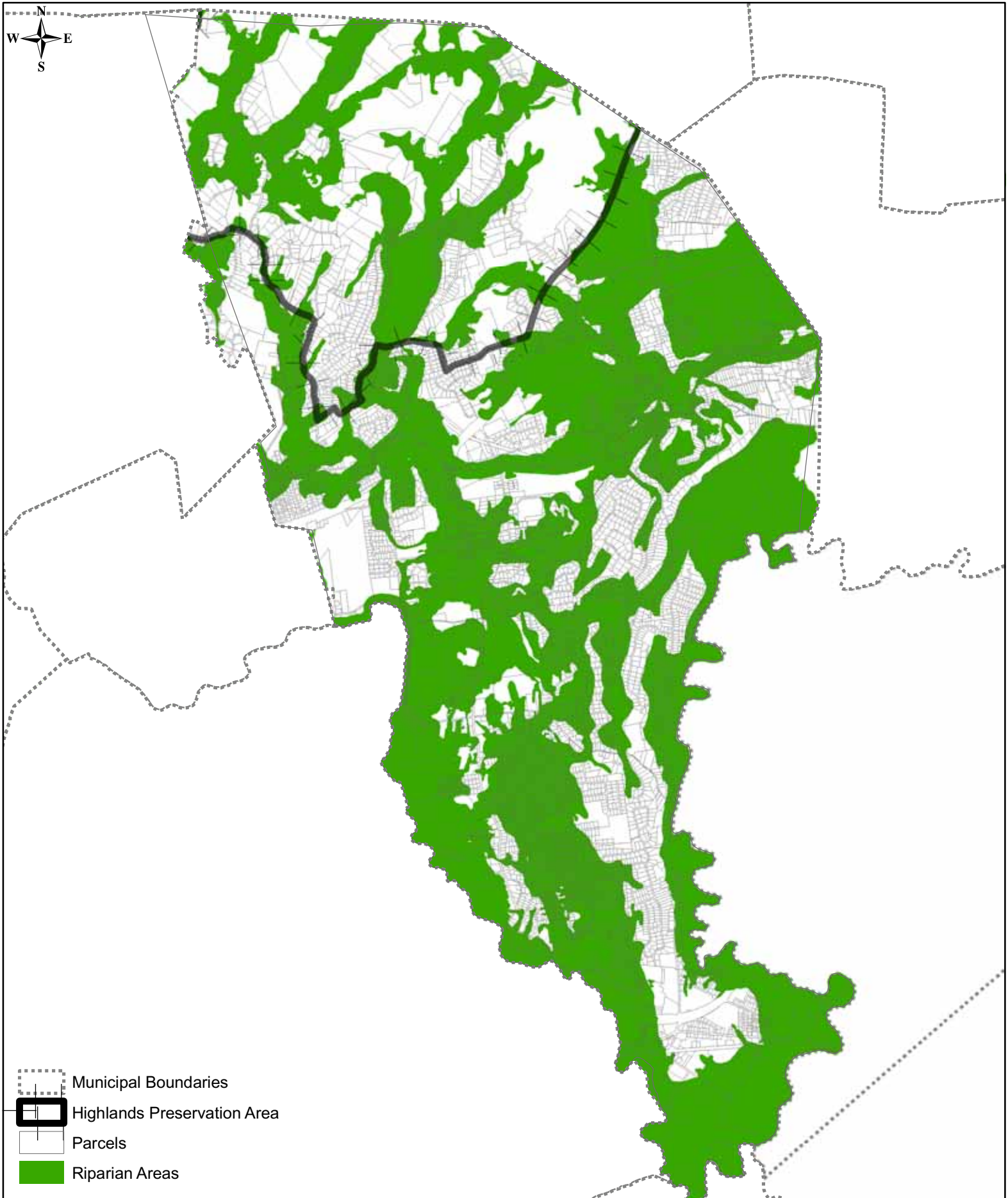
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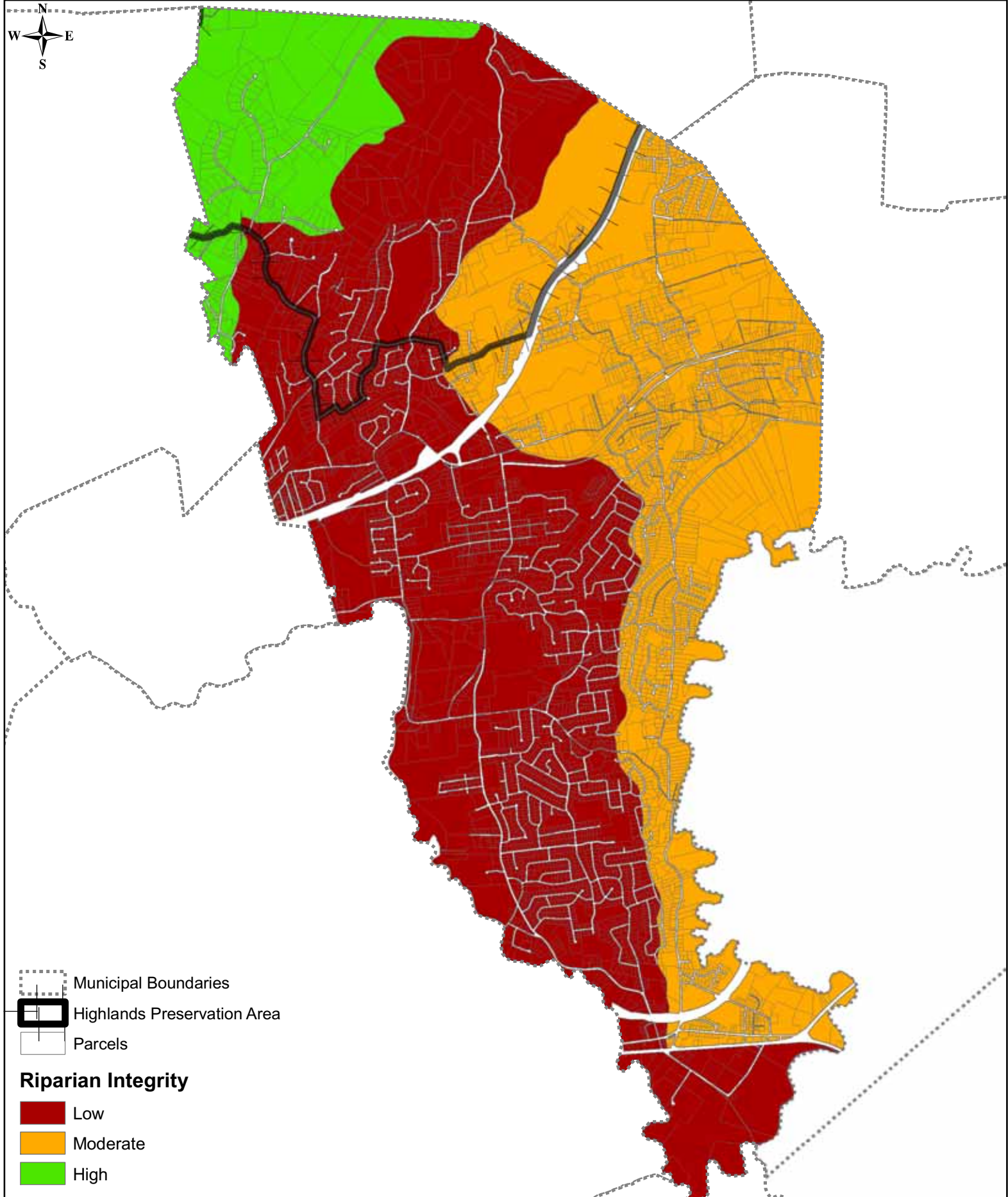
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-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  Riparian Areas

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-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels

Riparian Integrity

-  Low
-  Moderate
-  High

Dwg. Title
Riparian Integrity by HUC 14 Map

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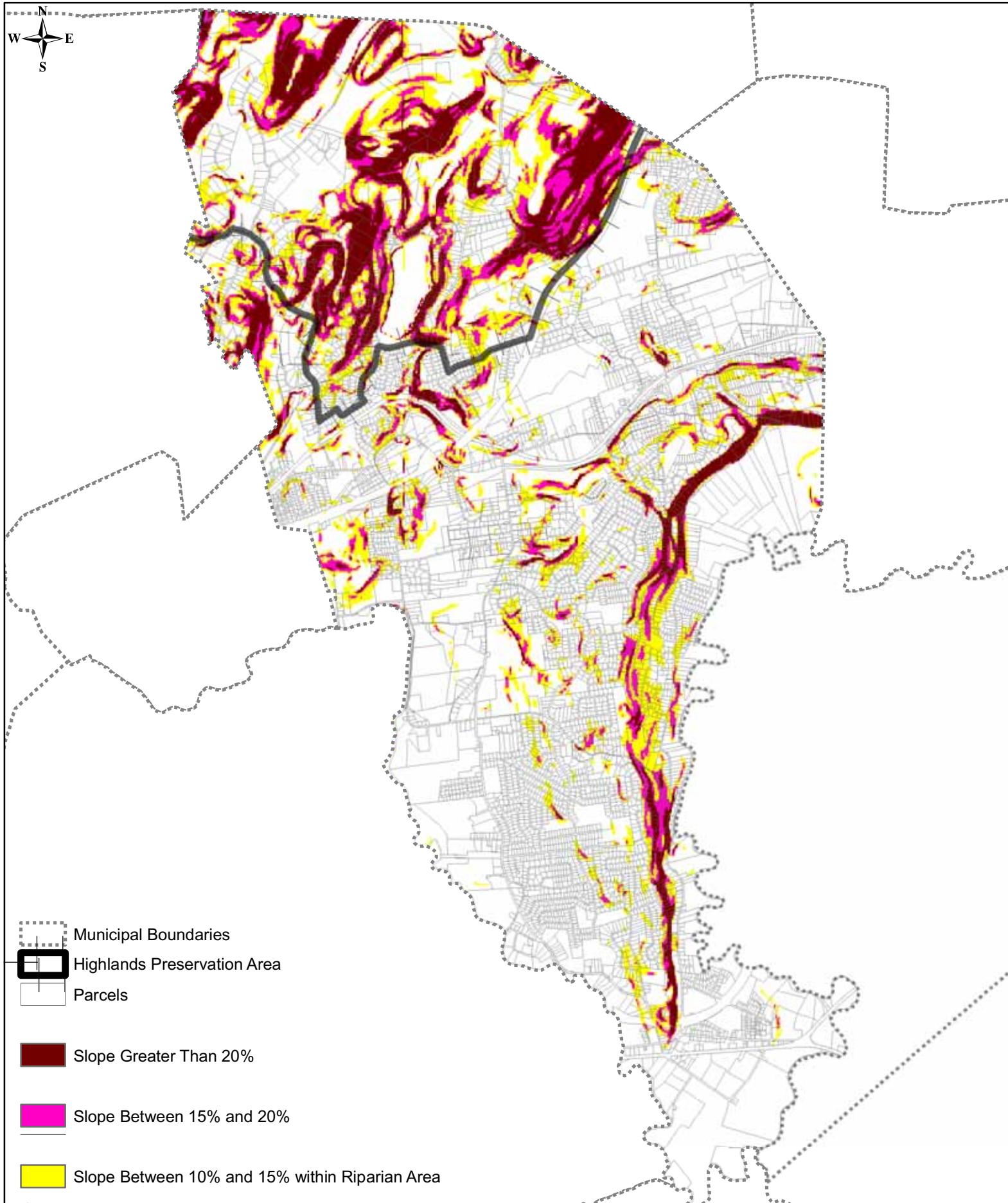
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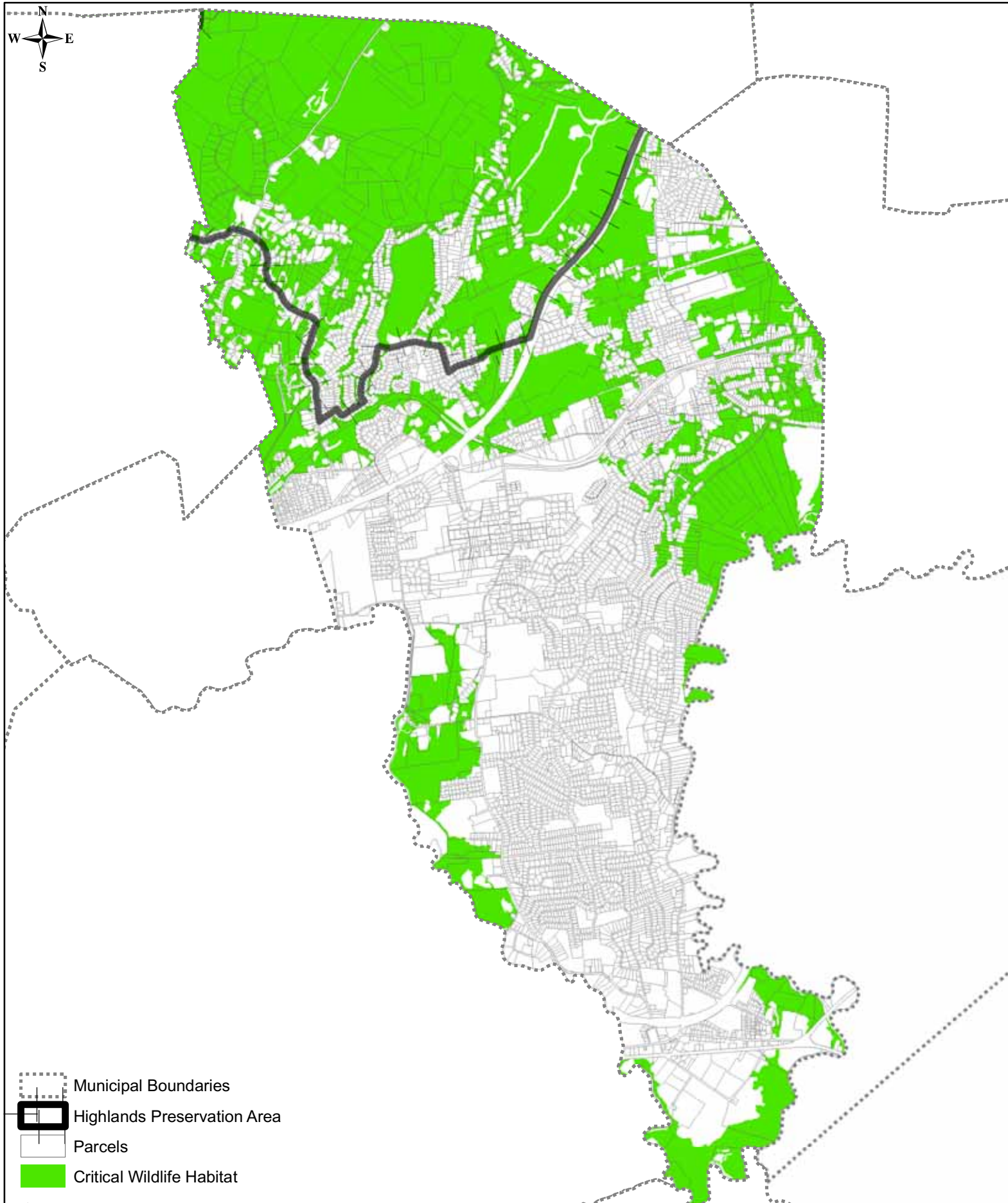
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-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  Slope Greater Than 20%
-  Slope Between 15% and 20%
-  Slope Between 10% and 15% within Riparian Area

Dwg. Title <h3 style="margin: 0;">Steep Slope Protection Areas Map</h3>	Project No. 1946.51	Dwg. Date 4/9/09	Drawn By RW
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-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  Critical Wildlife Habitat

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Critical Wildlife Habitat Map

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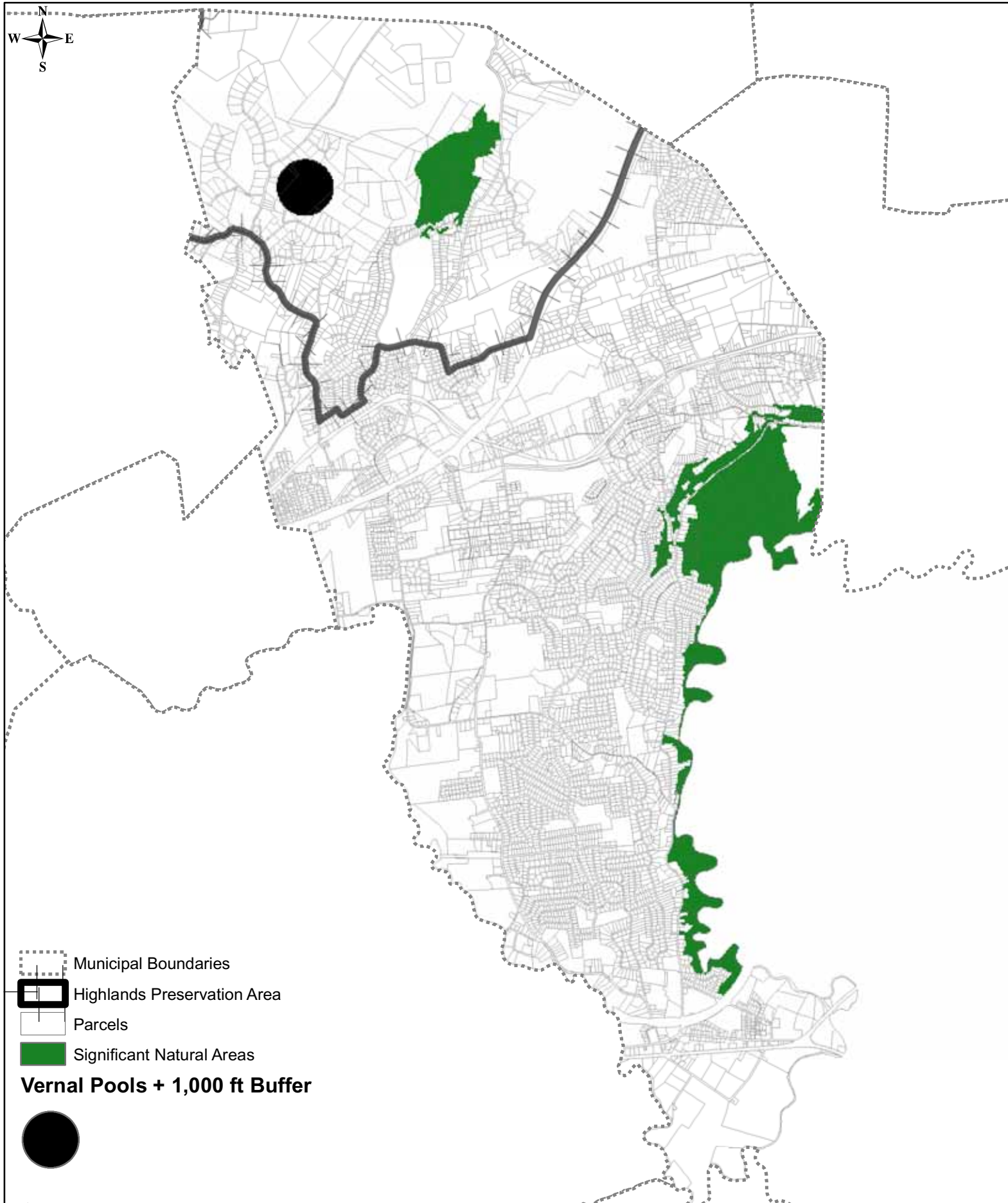
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-  Highlands Preservation Area
-  Parcels
-  Significant Natural Areas

Vernal Pools + 1,000 ft Buffer



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Significant Natural Areas and Vernal Pools Map

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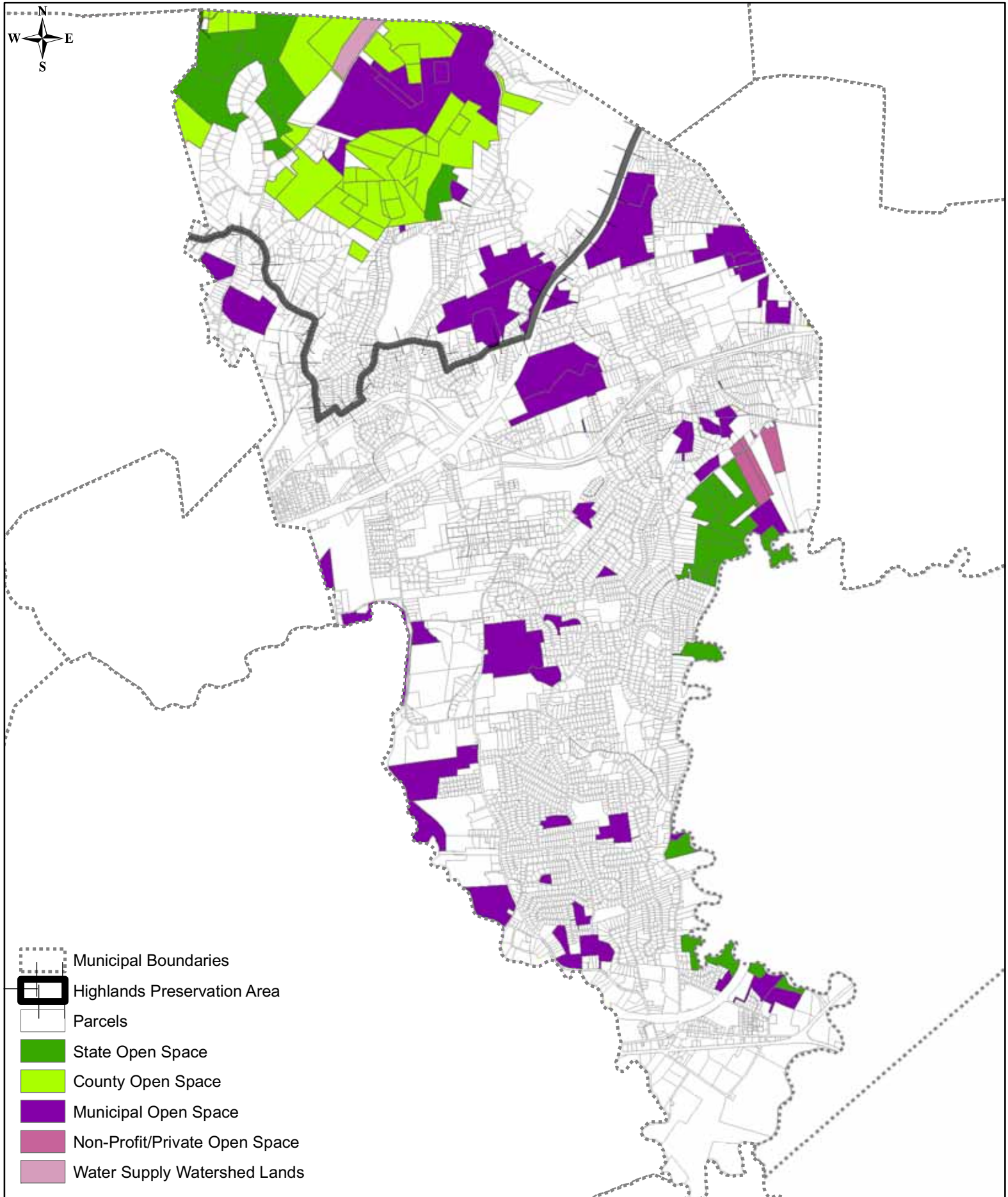
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






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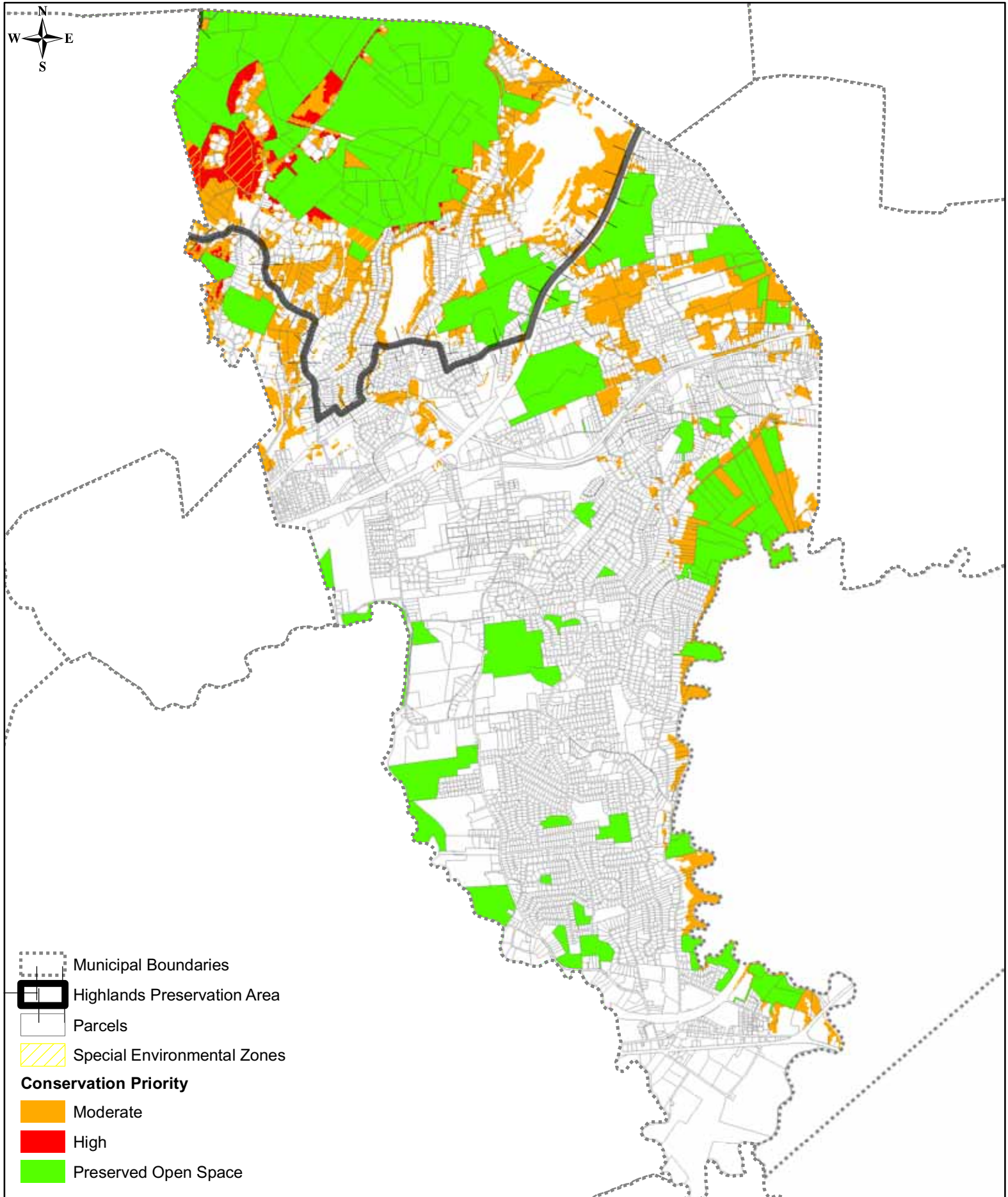
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1 of 1








Drawing No.
SNA_VP



-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  State Open Space
-  County Open Space
-  Municipal Open Space
-  Non-Profit/Private Open Space
-  Water Supply Watershed Lands

Dwg. Title <p style="text-align: center;">Preserved Lands Map</p>	Project No. <p style="text-align: center;">1946.51</p>	Dwg. Date <p style="text-align: center;">4/9/09</p>	Drawn By <p style="text-align: center;">RW</p>
 BURGIS ASSOCIATES, INC. PROFESSIONAL PLANNERS / LANDSCAPE ARCHITECTS 25 WESTWOOD AVENUE WESTWOOD, N.J. 07675 201-666-1811 FAX: 201-666-2599	Project Title <p style="text-align: center;">Highlands Initial Assessment Report</p> <small>TOWNSHIP OF MONTVILLE MORRIS COUNTY, NEW JERSEY</small>	Dwg. Scale <p style="text-align: center;">N.T.S.</p>	Sheet No. <p style="text-align: center;">1 of 1</p> Drawing No. <p style="text-align: center;">PL</p>



-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  Special Environmental Zones
- Conservation Priority**
-  Moderate
-  High
-  Preserved Open Space

Dwg. Title
 Conservation Priority Area Map

Project No.
 1946.51

Dwg. Date
 4/9/09

Drawn By
 RW

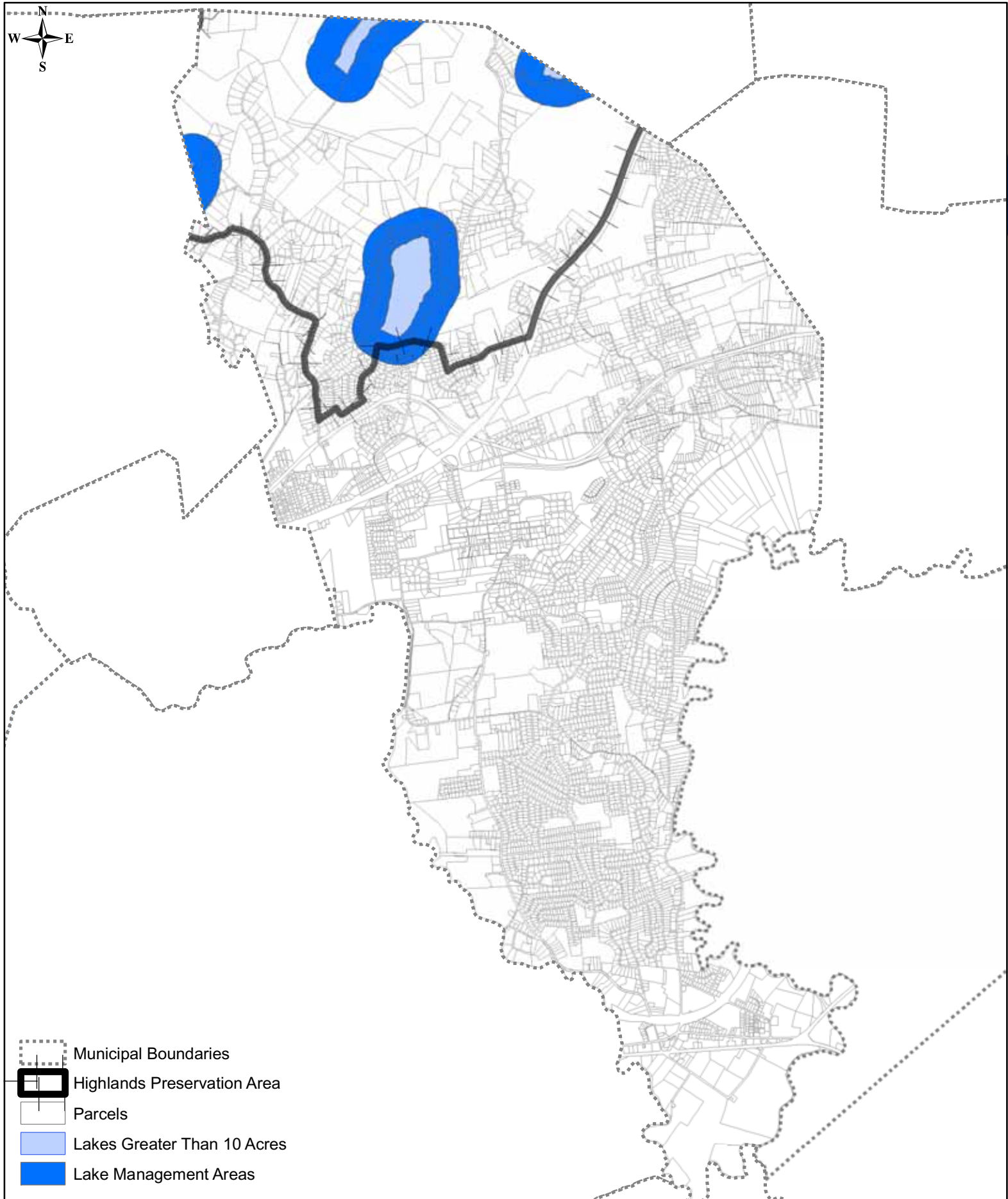
 **BURGIS ASSOCIATES, INC.**
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 25 WESTWOOD AVENUE
 WESTWOOD, N.J. 07675
 201-666-1811 FAX: 201-666-2599






Project Title
 Highlands Initial Assessment Report
TOWNSHIP OF MONTVILLE
 MORRIS COUNTY, NEW JERSEY


Dwg. Scale
 N.T.S.

Sheet No.
 1 of 1

Drawing No.
 CPA



-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  Lakes Greater Than 10 Acres
-  Lake Management Areas

Dwg. Title <p style="text-align: center;">Lake Management Area Map</p>	Project No. <p style="text-align: center;">1946.51</p>	Dwg. Date <p style="text-align: center;">4/14/09</p>	Drawn By <p style="text-align: center;">RW</p>
 BURGIS ASSOCIATES, INC. PROFESSIONAL PLANNERS / LANDSCAPE ARCHITECTS 25 WESTWOOD AVENUE WESTWOOD, N.J. 07675 201-666-1811 FAX: 201-666-2599	Project Title <p style="text-align: center;">Highlands Initial Assessment Report</p> <small>TOWNSHIP OF MONTVILLE MORRIS COUNTY, NEW JERSEY</small>	Sheet No. <p style="text-align: center;">1 of 1</p>	Drawing No. <p style="text-align: center;">LMA</p>






Stony Brook (Boonton)
 HUC14 ID: 02030103030130
 Net Water Deficit: -0.1718 (MGD)

Lincoln Park Tribs (Pompton River)
 HUC14 ID: 02030103110010
 Net Water Deficit: -2.3724 (MGD)





Montville Tribs
 HUC14 ID: 02030103030160
 Net Water Deficit: -0.0021 (MGD)

Passaic R Upr (Pompton R to Pine Bk)
 HUC14 ID: 02030103040010
 Net Water Deficit: -0.0235 (MGD)

Rockaway R (Passaic R to Boonton Dam)
 HUC14 ID: 02030103030170
 Net Water Availability: 0.0679 (MGD)

-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels

Million Gallons Per Day (MGD)

-  0.05 to 0.09
-  -0.09 to -0.01
-  -0.99 to -0.10
-  -7.10 to -1.00

Dwg. Title
Net Water Availability by HUC 14 Map

Project No.
1946.51

Dwg. Date
5/8/09

Drawn By
RW

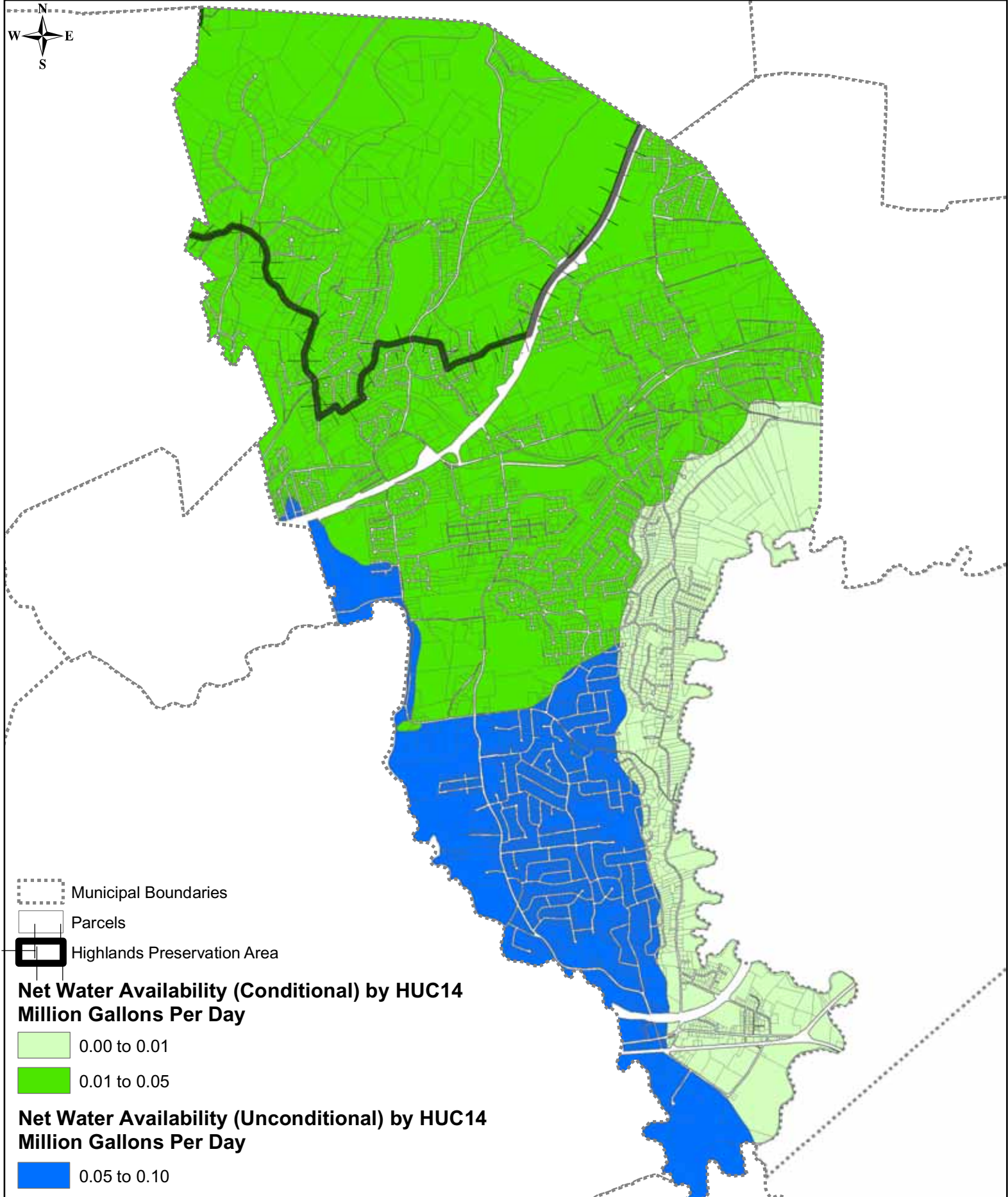
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Project Title
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TOWNSHIP OF MONTVILLE
 MORRIS COUNTY, NEW JERSEY

Dwg. Scale
N.T.S.



Sheet No.
1 of 1

Drawing No.
NWA




-  Municipal Boundaries
-  Parcels
-  Highlands Preservation Area

**Net Water Availability (Conditional) by HUC14
Million Gallons Per Day**

-  0.00 to 0.01
-  0.01 to 0.05

**Net Water Availability (Unconditional) by HUC14
Million Gallons Per Day**

-  0.05 to 0.10

Dwg. Title
Land Use Capability Water Availability Map

Project No.
1946.51

Dwg. Date
4/9/09

Drawn By
RW

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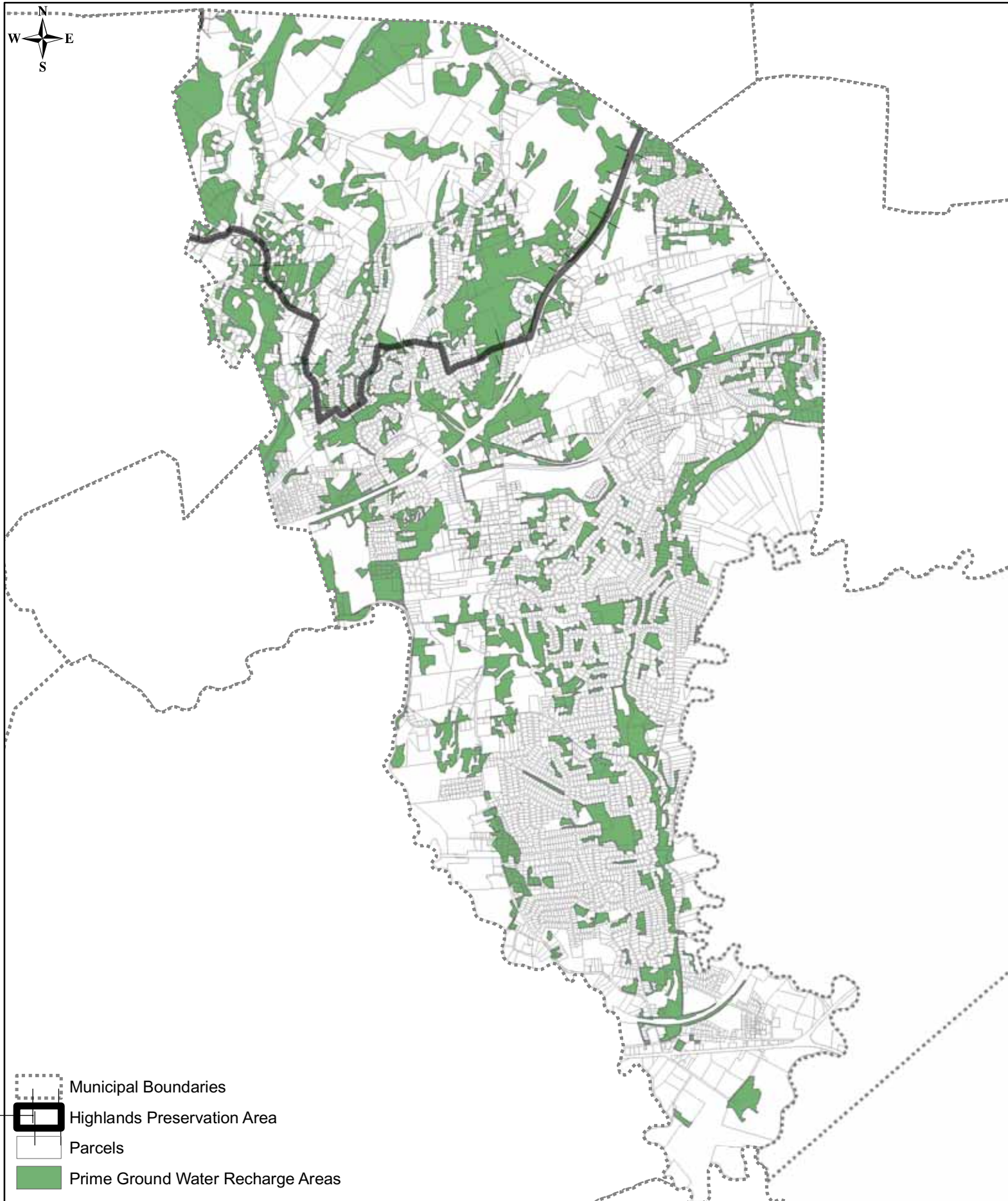
Project Title
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TOWNSHIP OF MONTVILLE
MORRIS COUNTY, NEW JERSEY





Dwg. Scale
N.T.S.

Sheet No.
1 of 1

Drawing No.
LUCM2

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-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  Prime Ground Water Recharge Areas

Dwg. Title
Prime Ground Water Recharge Areas Map

Project No.
1946.51

Dwg. Date
4/14/09

Drawn By
RW

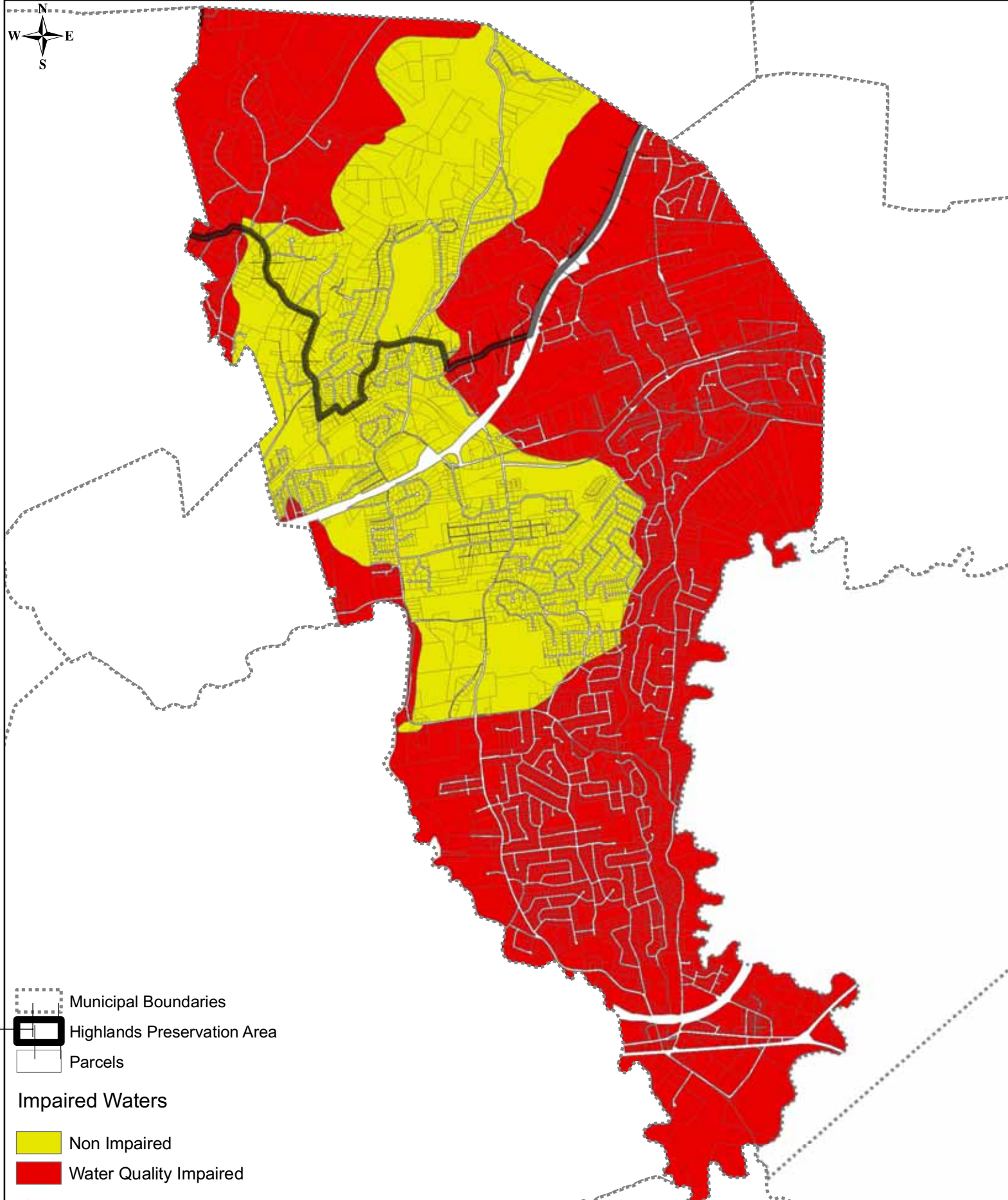
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TOWNSHIP OF MONTVILLE
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Dwg. Scale
N.T.S.

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Drawing No.
PGWR

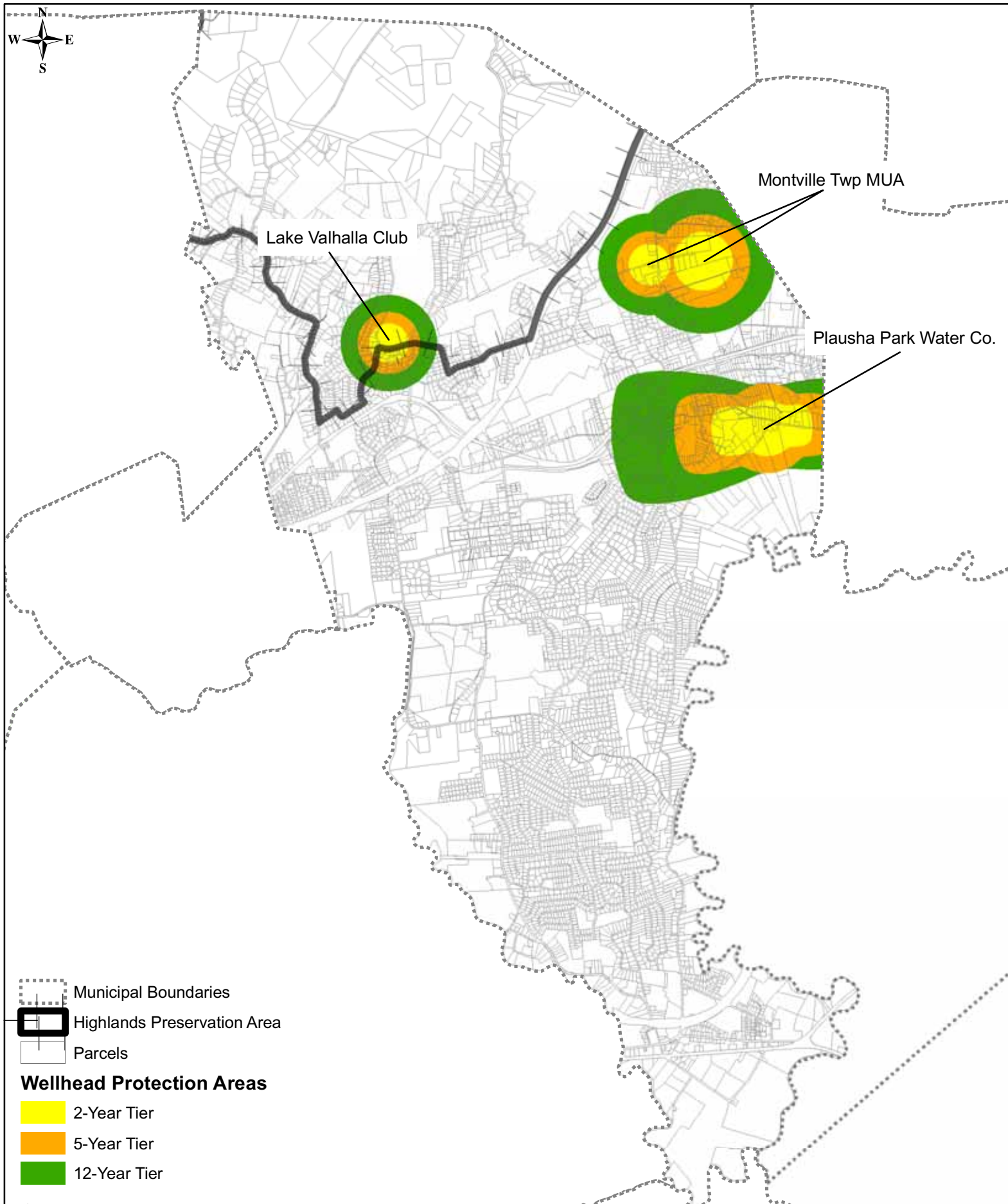








- Municipal Boundaries
- Highlands Preservation Area
- Parcels


Impaired Waters

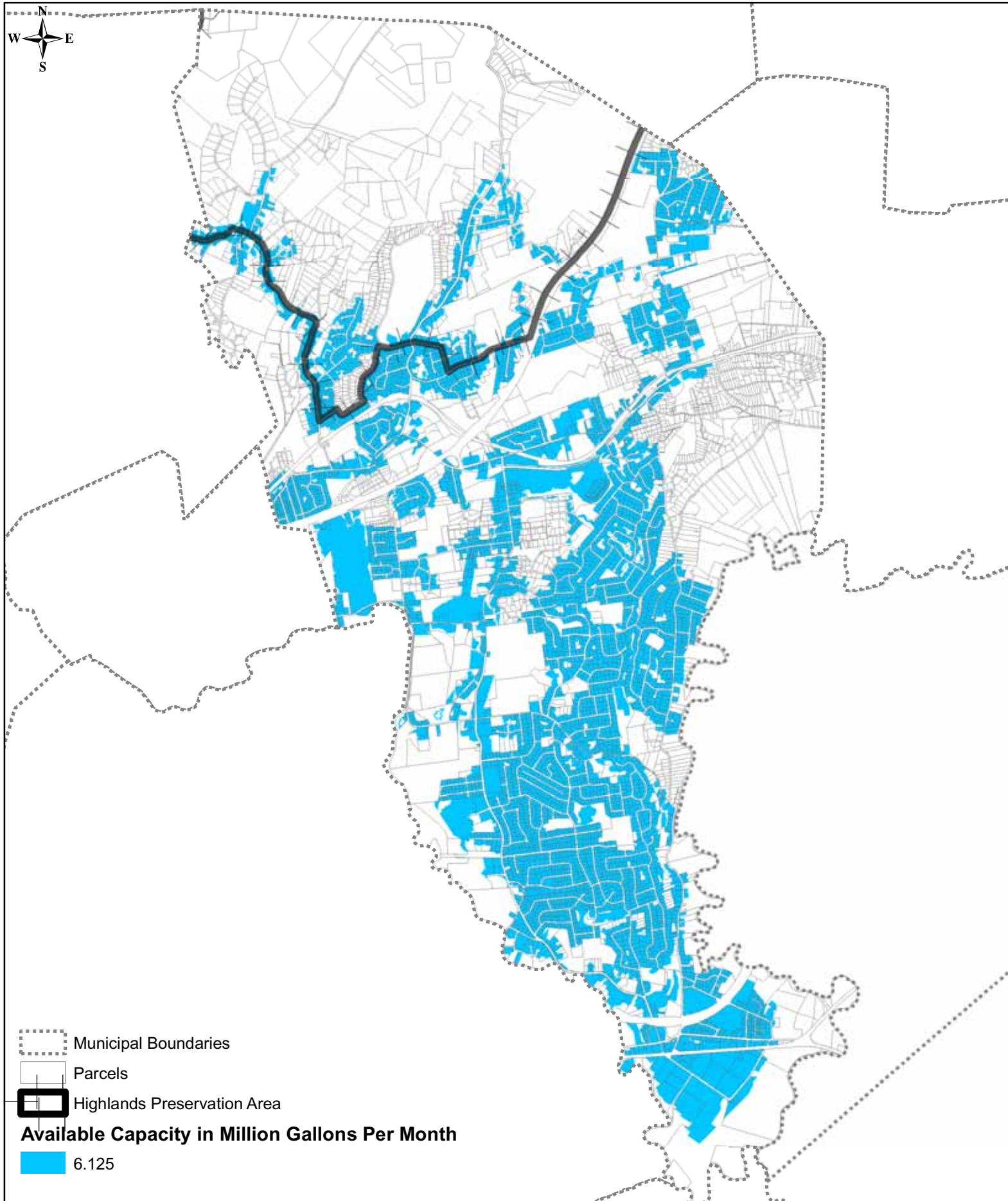
- Non Impaired
- Water Quality Impaired

Dwg. Title Impaired Waters Overall Assessment by HUC 14 Map	Project No. 1946.51	Dwg. Date 4/14/09	Drawn By RW
BURGIS ASSOCIATES, INC. PROFESSIONAL PLANNERS / LANDSCAPE ARCHITECTS 25 WESTWOOD AVENUE WESTWOOD, N.J. 07675 201-666-1811 FAX: 201-666-2599	Project Title Highlands Initial Assessment Report <small>TOWNSHIP OF MONTVILLE MORRIS COUNTY, NEW JERSEY</small>	Dwg. Scale N.T.S.	Sheet No. 1 of 1 Drawing No. IMP
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-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
- Wellhead Protection Areas**
-  2-Year Tier
-  5-Year Tier
-  12-Year Tier

Dwg. Title	Wellhead Protection Areas Map	Project No.	1946.51	Dwg. Date	5/8/09	Drawn By	RW
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 Municipal Boundaries

 Parcels

 Highlands Preservation Area

Available Capacity in Million Gallons Per Month

 6.125

Dwg. Title
Land Use Capability Public Community Water Systems Map

Project No.
1946.51

Dwg. Date
4/9/09

Drawn By
RW

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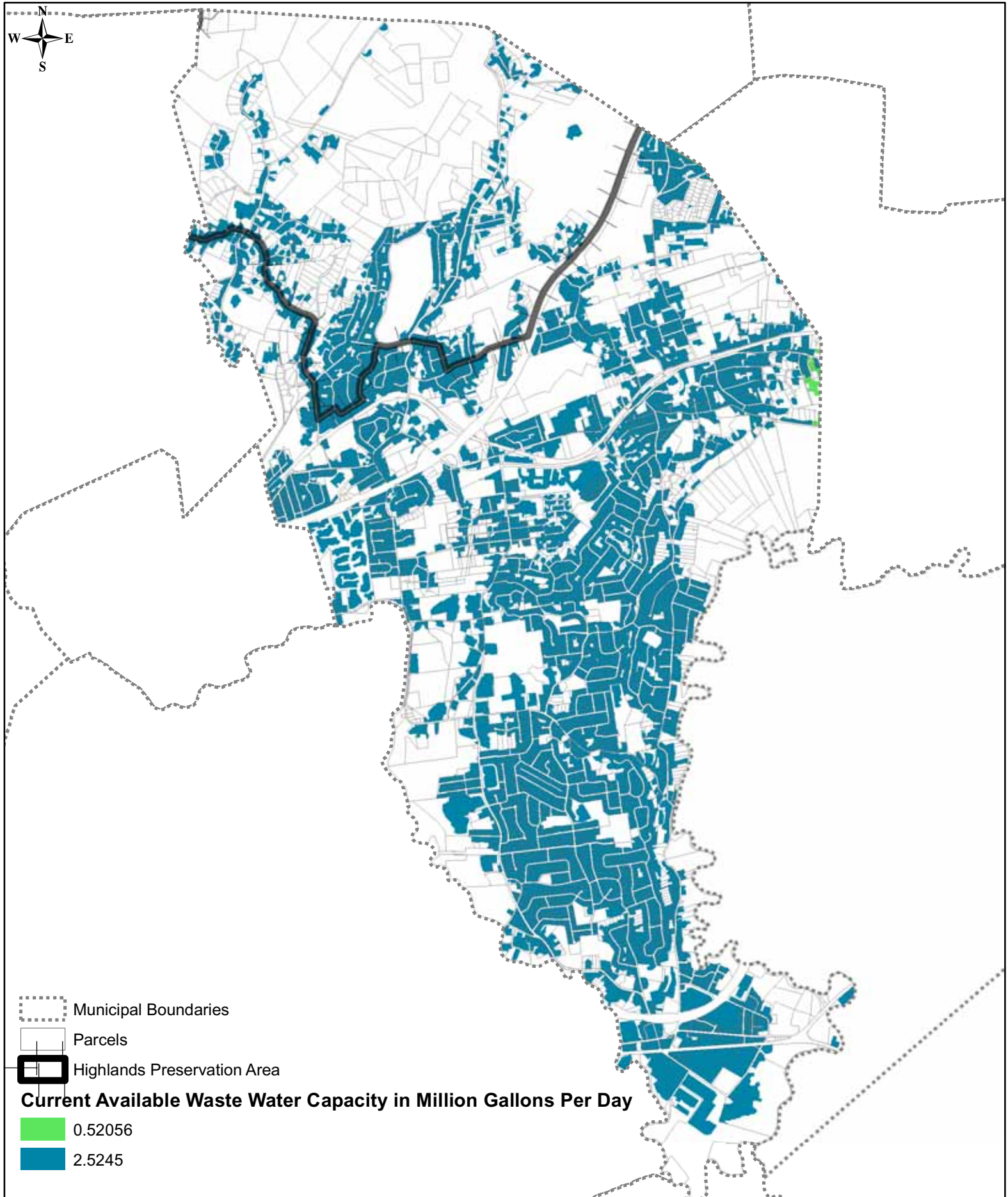
Project Title
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LUCM3

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 Municipal Boundaries

 Parcels

 Highlands Preservation Area

Current Available Waste Water Capacity in Million Gallons Per Day

 0.52056

 2.5245

Dwg. Title
Land Use Capability Domestic Sewerage Facilities Map

Project No.
1946.51

Dwg. Date
4/9/09

Drawn By
RW

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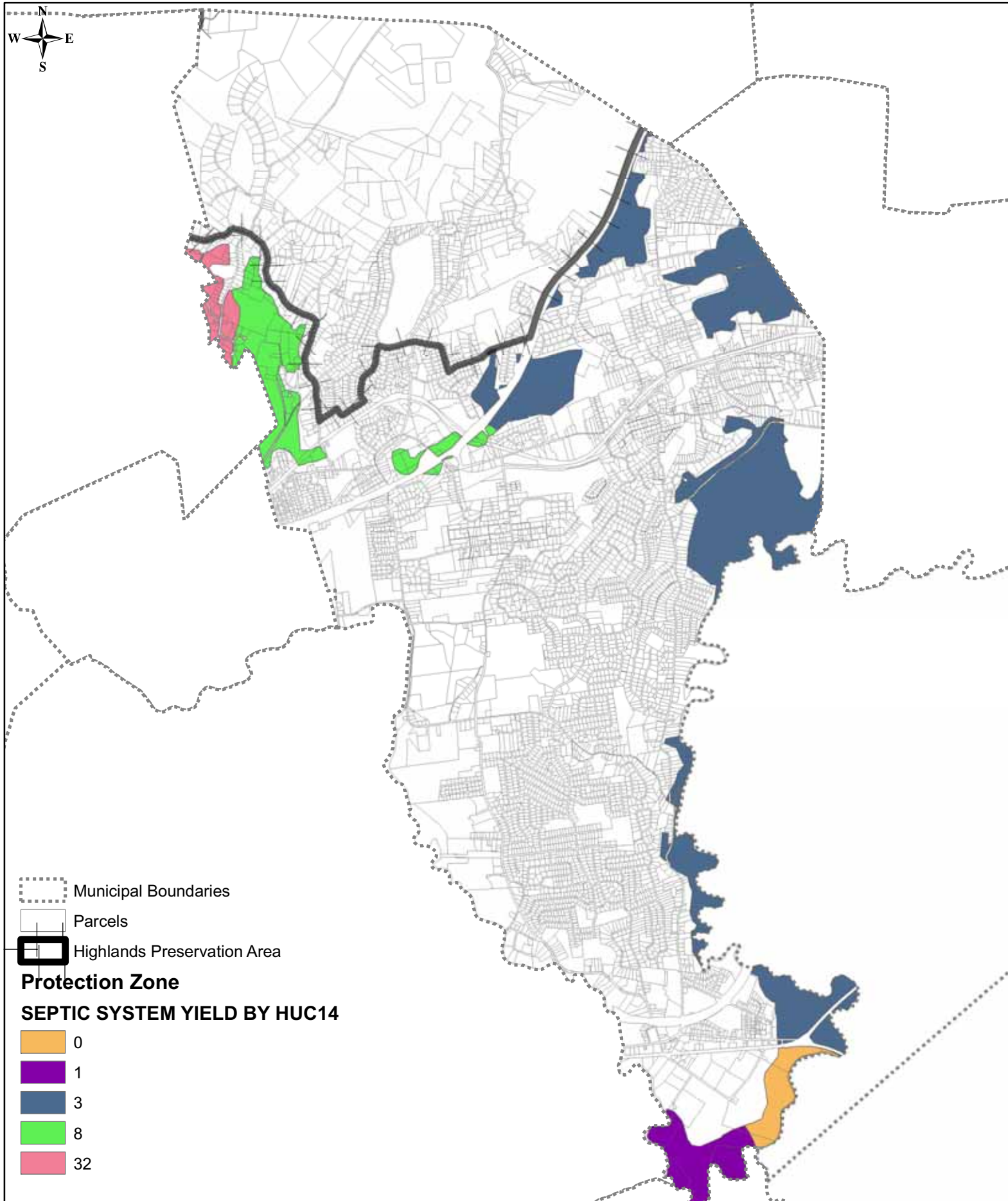
Project Title
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Drawing No.
LUCM4

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- Municipal Boundaries
- Parcels
- Highlands Preservation Area

Protection Zone

SEPTIC SYSTEM YIELD BY HUC14

- 0
- 1
- 3
- 8
- 32

Dwg. Title
Land Use Capability Septic System Yield Map

Project No.
1946.51

Dwg. Date
4/9/09

Drawn By
RW

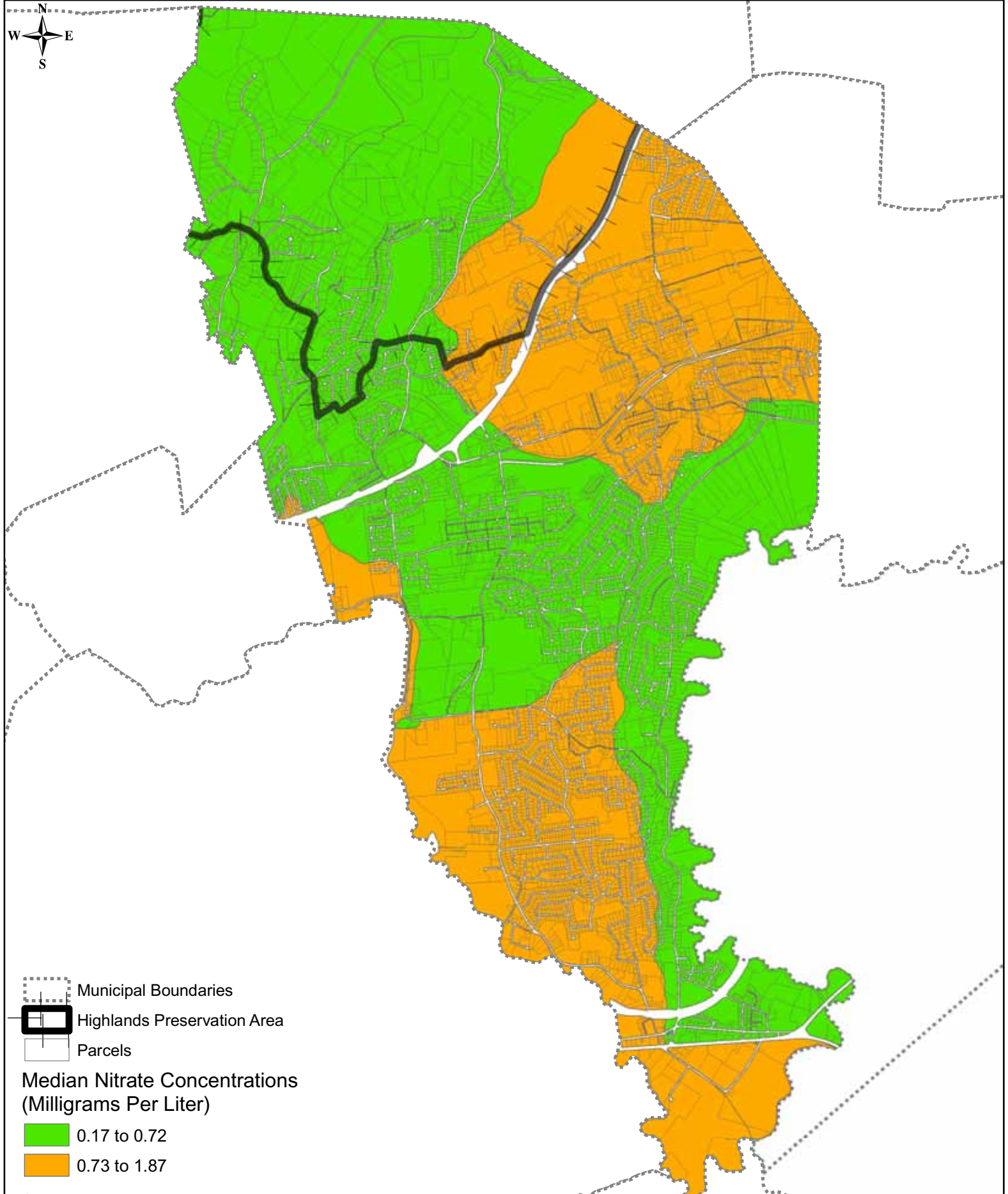
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
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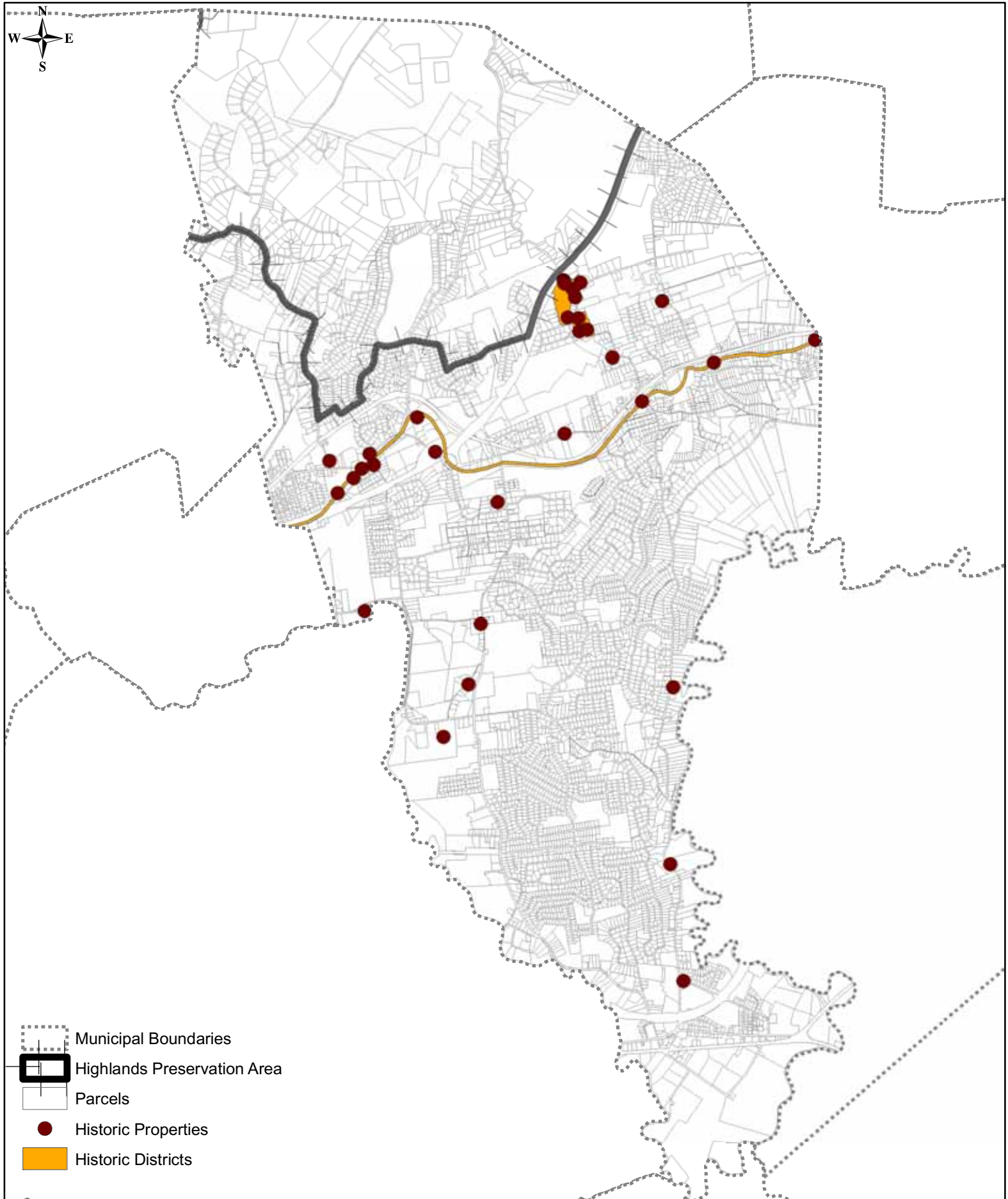


-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels

**Median Nitrate Concentrations
(Milligrams Per Liter)**

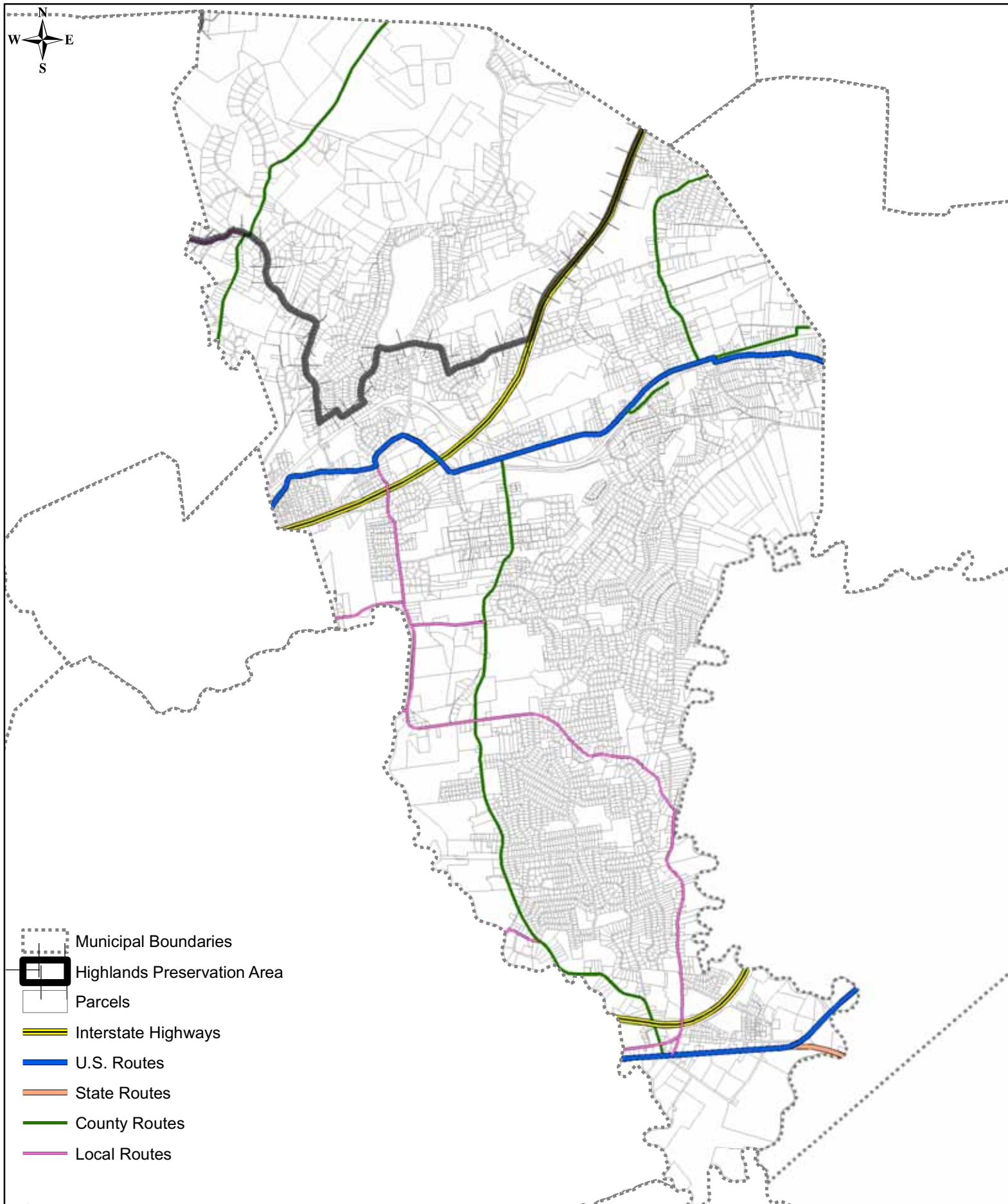
-  0.17 to 0.72
-  0.73 to 1.87









Dwg. Title Median Nitrate Concentration by HUC 14 Map	Project No. 1946.51	Dwg. Date 4/14/09	Drawn By RW
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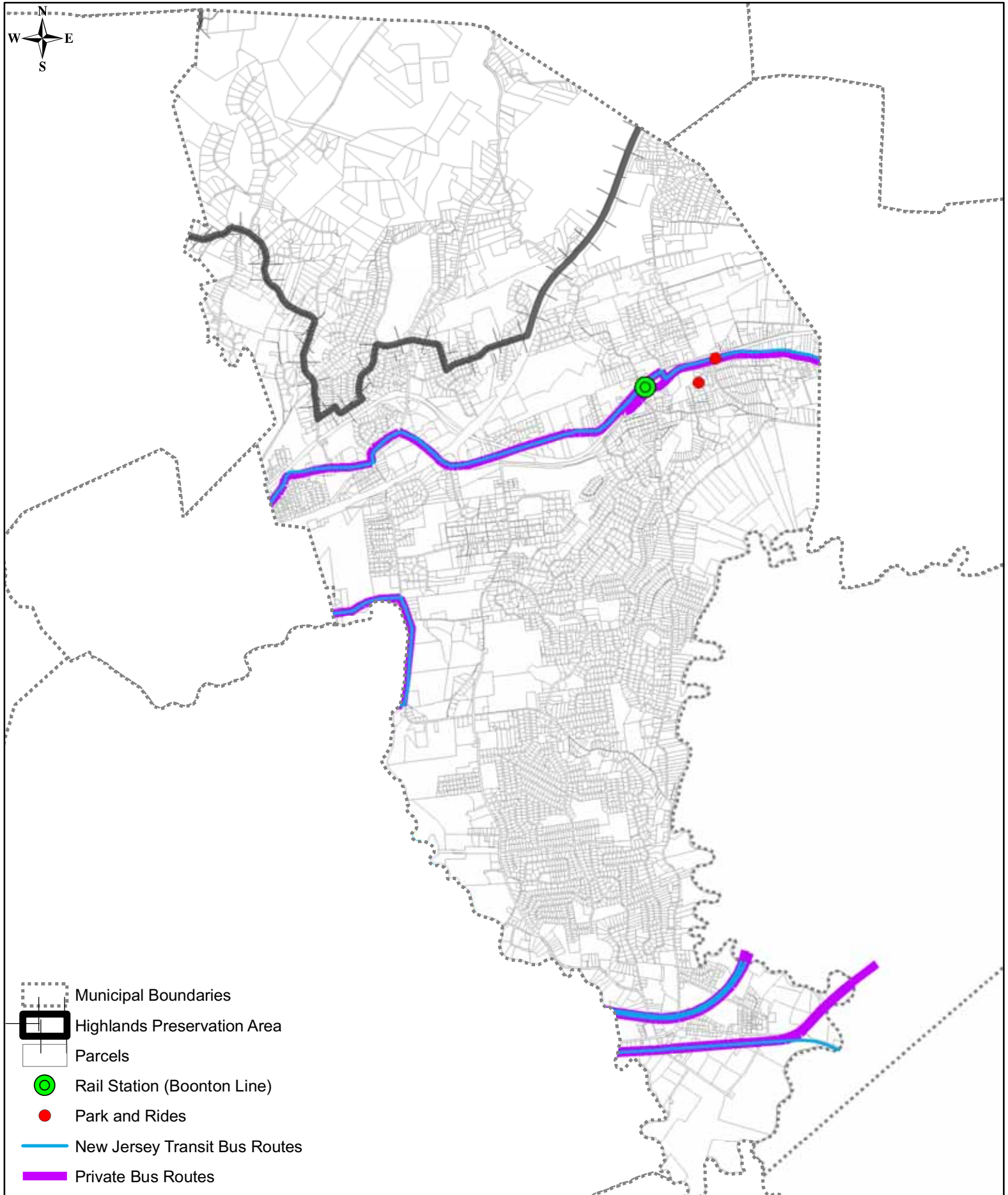
-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  Historic Properties
-  Historic Districts








Dwg. Title <p style="text-align: center;">Historic Preservation Map</p>	Project No. <p style="text-align: center;">1946.51</p>	Dwg. Date <p style="text-align: center;">4/14/09</p>	Drawn By <p style="text-align: center;">RW</p>
 BURGIS ASSOCIATES, INC. PROFESSIONAL PLANNERS / LANDSCAPE ARCHITECTS 25 WESTWOOD AVENUE WESTWOOD, N.J. 07675 201-666-1811 FAX: 201-666-2599	Project Title <p style="text-align: center;">Highlands Initial Assessment Report</p> <small>TOWNSHIP OF MONTVILLE MORRIS COUNTY, NEW JERSEY</small>	Sheet No. <p style="text-align: center;">1 of 1</p>	Drawing No. <p style="text-align: center;">HIST</p>



-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  Interstate Highways
-  U.S. Routes
-  State Routes
-  County Routes
-  Local Routes

Dwg. Title <p style="text-align: center;">Roadway Network Map</p>	Project No. <p style="text-align: center;">1946.51</p>	Dwg. Date <p style="text-align: center;">4/14/09</p>	Drawn By <p style="text-align: center;">RW</p>
 BURGIS ASSOCIATES, INC. PROFESSIONAL PLANNERS / LANDSCAPE ARCHITECTS 25 WESTWOOD AVENUE WESTWOOD, N.J. 07675 201-666-1811 FAX: 201-666-2599	Project Title <p style="text-align: center;">Highlands Initial Assessment Report</p> <small>TOWNSHIP OF MONTVILLE MORRIS COUNTY, NEW JERSEY</small>	Sheet No. <p style="text-align: center;">1 of 1</p>	Drawing No. <p style="text-align: center;">ROAD</p>
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-  Municipal Boundaries
-  Highlands Preservation Area
-  Parcels
-  Rail Station (Boonton Line)
-  Park and Rides
-  New Jersey Transit Bus Routes
-  Private Bus Routes

Dwg. Title

Transit Network Map

Project No.

1946.51

Dwg. Date

4/14/09

Drawn By

RW



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Project Title
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Drawing No.

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APPENDIX A-2:
MONTVILLE TOWNSHIP INITIAL ASSESSMENT GRANT REPORT ADDENDUM

Instructions: Complete chart below, indicating for each subject area, whether current municipal planning documents include language concerning the applicable topic (insert “yes,” “no,” or “N/A,” for not applicable), whether or not existing language covers and includes all RMP provisions (insert “yes,” “no,” or “N/A,” for not applicable), and what actions are needed for Plan Conformance (i.e., “revise applicable ordinance to include RMP provisions,” “develop new ordinance to address topic,” “supplement ERI, Master Plan and Ordinances to include topic and RMP provisions,” or “none”).

	EXISTING ERI/NRI		EXISTING MASTER PLAN		EXISTING LAND USE ORDINANCES		Action(s) Required
	Include Topic?	Address RMP?	Include Topic?	Address RMP?	Include Topic?	Address RMP?	
Forest Resources	Yes	No	Yes	No	Yes	No	Revise NRI, MP and LUO to incorporate RMP provisions.
Highlands Open Waters & Riparian Areas	Yes	No	Yes	No	Yes	No	Revise NRI, MP and LUO to incorporate RMP provisions.
Steep Slopes	Yes	No	Yes	No	Yes	No	Revise NRI, MP and LUO to incorporate RMP provisions.
Critical Habitat	Yes	No	No	No	Yes	No	Revise NRI and LUO to incorporate RMP provisions. Supplement MP to include topic and incorporate RMP provisions.
Carbonate Rock	N/A	N/A	N/A	N/A	N/A	N/A	None.
Lake Management	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic and incorporate RMP provisions.
Water Resources Availability	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic and incorporate RMP provisions.
Prime Groundwater Recharge	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic and incorporate RMP provisions.
Water Quality	Yes	No	Yes	No	Yes	No	Revise NRI, MP and LUO to incorporate

	EXISTING ERI/NRI		EXISTING MASTER PLAN		EXISTING LAND USE ORDINANCES		Action(s) Required
	Include Topic?	Address RMP?	Include Topic?	Address RMP?	Include Topic?	Address RMP?	
							RMP provisions.
Wellhead Protection	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic.
Stormwater Management	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic.
Water/Wastewater Utilities	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic.
Septic Densities	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic.
Low Impact Development	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic.
Transportation	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic.
Land Pres/Stewardship	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic.
Agricultural Resources	N/A	N/A	N/A	N/A	N/A	N/A	None (but Township should consider optional preparation of Farmland Preservation Plan).
Cluster Development	No	No	Yes	Yes	Yes	Yes	Review model MP and LUO documents to ensure consistency. Supplement NRI to include topic.
Community Facilities	No	No	Yes	No	No	No	Revise MP to incorporate RMP provisions. Supplement NRI and LUO to include topic.
Sustainable Economic Development	No	No	Yes	No	Yes	No	Revise MP and LUO to incorporate RMP provisions. Supplement NRI to include topic.
Historic, Cultural, Archaeological Resources	No	No	Yes	No	Yes	Yes	Revise MP to incorporate RMP provisions. Supplement NRI to include topic. Review model ordinance(s) to ensure consistency.

APPENDIX A-3: HIGHLANDS ACT EXEMPTIONS

The activities listed below are exempt from meeting the requirements of the Highlands Act, Regional Master Plan (RMP), and any NJDEP or municipal regulations adopted to be in conformance with the RMP:

1. The construction of a single-family dwelling, for an individual's own use or the use of an immediate family member, on a lot owned by the individual on August 10, 2004 or on a lot for which the individual has on or before May 17, 2004 entered into a binding contract of sale to purchase that lot;
2. The construction of a single-family dwelling on a lot in existence on August 10, 2004, provided that the construction does not result in the ultimate disturbance of more than one acre of land or a cumulative increase in impervious surface by one-quarter acre or more;
3. A major Highlands development that received on or before March 29, 2004:
 - a. one of the following approvals pursuant to the "Municipal Land Use Law,":
 - i. Preliminary or final site plan approval;
 - ii. Final municipal building or construction permit;
 - iii. Minor subdivision approval where no subsequent site plan approval is required; or
 - iv. Preliminary or Final subdivision approval where no subsequent site plan approval is required; and
 - b. At least one of the following DEP permits, if applicable to the proposed major Highlands development:
 - . A permit or certification pursuant to the "Water Supply Management Act";
 - i. A water extension permit or other approval or authorization pursuant to the "Safe Drinking Water Act";
 - ii. A certification or other approval or authorization issued pursuant to the "The Realty Improvement Sewerage and Facilities Act (1954)";
 - iii. A treatment works approval pursuant to the "Water Pollution Control Act,"); or
 - c. One of the following DEP permits, if applicable to the proposed major Highlands development, and if the proposed major Highlands development does not require one of the permits listed above:
 - . A permit or other approval or authorization issued pursuant to the "Freshwater Wetlands Protection Act";
 - i. A permit or other approval or authorization issued pursuant to the "Flood Hazard Area Control Act

10. The construction of transportation safety projects and bicycle and pedestrian facilities by a State entity or local government unit, provided that the activity does not result in the construction of any new through-capacity travel lanes;
11. The routine maintenance and operations, rehabilitation, preservation, reconstruction, repair, or upgrade of public utility lines, rights of way, or systems, by a public utility, provided that the activity is consistent with the goals and purposes of the Highlands Act;
12. The reactivation of rail lines and rail beds existing on August 10, 2004;
13. The construction of a public infrastructure project approved by public referendum prior to January 1, 2005 or a capital project approved by public referendum prior to January 1, 2005;
14. The mining, quarrying, or production of ready mix concrete, bituminous concrete, or Class B recycling materials occurring or which are permitted to occur on any mine, mine site, or construction materials facility existing on June 7, 2004;
15. The remediation of any contaminated site pursuant to N.J.S.A. 58:10B-1 et seq.;
16. Any lands of a federal military installation existing on August 10, 2004 that lie within the Highlands Region; and
17. A major Highlands development located within an area designated as Planning Area 1 (Metropolitan), or Planning Area 2 (Suburban), as designated pursuant to the State Planning Act, N.J.S.A. 52:18A-196 et seq. as of March 29, 2004, that on or before March 29, 2004 has been the subject of a settlement agreement and stipulation of dismissal issued by the Superior Court, or a builder's remedy issued by the Superior Court, to satisfy the constitutional requirement to provide for the fulfillment of the fair share obligation of the municipality in which the development is located. This exemption shall expire if construction beyond site preparation does not commence within three years after receiving all final approvals required pursuant to the "Municipal Land Use Law," N.J.S.A. 52:18A-196 et seq.