

**MASTER PLAN REEXAMINATION REPORT**  
**LOPATCONG TOWNSHIP**  
**Warren County, New Jersey**



**LOPATCONG TOWNSHIP PLANNING BOARD**

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**Paul Sterbenz, P.E., Board Engineer**

**SEPTEMBER 2019**

**Adopted:**

**NOVEMBER 25, 2019**

The original of this document was signed and sealed  
in accordance with N.J.S.A. 45:14A-12.

**Prepared by:**

A handwritten signature in black ink, appearing to read "George Ritter", is written over a horizontal line.

**George Ritter, P.P., Board Planner**

**License No. 2126**

**LOPATCONG TOWNSHIP**  
**MASTER PLAN REEXAMINATION REPORT**  
**Adopted by the Lopatcong Township Planning Board**  
**By Resolution dated November 25, 2019**

**Introduction**

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The New Jersey Municipal Land Use Law (MLUL) (N.J.S.A. 40:55D-1 et seq.) provides that each municipality within the State of New Jersey periodically reexamine its Master Plan policies and assumptions, and its zoning restrictions and site plan and subdivision regulations, and prepare and adopt by resolution, a report on the findings of such reexamination. The Reexamination Report must include the following components (N.J.S.A. 40:55D-89):

1. The major problems and objectives relating to land development in the municipality at the time of the adoption of the last reexamination report.
2. The extent to which such problems and objectives have been reduced or have increased subsequent to such date.
3. The extent to which there have been significant changes in the assumptions, policies, and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition, and recycling of designated recyclable materials, and changes in State, county and municipal policies and objectives.
4. The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared.
5. The recommendations of the Planning Board concerning the incorporation of redevelopment plans adopted pursuant to the “Local Redevelopment and Housing Law,” into the land use plan element of the municipal master plan, and recommended changes, if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality.

The current Lopatcong Township Master Plan was adopted by the Planning Board pursuant to Article 3 of the MLUL (N.J.S.A. 40:55D-28) in May of 1989. Periodic reexaminations of the Master Plan were adopted by the Board on April 15, 1996 and September 20, 2000. On November 23, 2004, the Board adopted “The 2004 Reexamination of the Lopatcong Township Master Plan”, a comprehensive plan that incorporates the policies, goals and objectives of the 1989 Master Plan and intervening reexamination reports. The Board subsequently adopted amendments to the Master Plan on June 22, 2005, December 6, 2005, December 12, 2005, May 26, 2010, February 8, 2012 and June 26, 2013 affecting the following Master Plan Elements, respectively: Master Plan Reexamination Report, Housing Element, Fair Share Plan, Housing Element, Fair Share Plan, 2012 Master Plan

Reexamination Report and 2013 Master Plan Reexamination Report. The Land Use Plan Element of the Master Plan was amended in 2009 to facilitate a zoning change to the HB-Highway Business Zone for development of an inclusionary affordable housing project know as Sycamore Landing. The most recent amendments to the Master Plan were for a new Housing Element and a Fair Share Plan, adopted on August 22, 2018.

The assumptions, policies, and objectives upon which the Master Plan is based have changed by virtue of: a) the enactment of the Highlands Water Protection and Planning Act (“Highlands Act,” N.J.S.A. 13:20-1 et seq.) by the State Legislature on August 10, 2004; b) the adoption of the Highlands Regional Master Plan by the Highlands Water Protection and Planning Council (“Highlands Council”) on July 17, 2008, which became effective on September 8, 2008; c) the requirement of the Highlands Act that municipal Master Plans and regulatory provisions be brought into alignment with the Highlands Regional Master Plan for lands located within the Highlands Preservation Area; d) the authorization within the Highlands Act for voluntary municipal Master Plan and regulatory conformance with the Highlands Regional Master Plan with respect to lands located within the Highlands Planning Area; e) the affirmative decision of the Lopatcong Township Governing Body to conform to the Highlands Regional Master Plan for municipal lands located in both the Preservation Area and Planning Area, as set forth by Ordinance 2011-19 adopted on December 29, 2011; and f) the Highlands Council requirement that conforming municipalities amend their master plan and regulating ordinances to provide for protection of Municipally Important Groundwater Recharge Areas (MIGWRAs).

Accordingly, the Planning Board has reexamined the Township Master Plan and development regulations to determine the specific changes necessary to achieve consistency with the Highlands Regional Master Plan and thereby, to incorporate the specific regulatory provisions required by the Highlands Council for protection of MIGWRAs. It is the intent of this Report to identify the specific revisions needed to bring the Township Master Plan and development regulations into conformance with the Highlands Regional Master Plan and its goals and objectives applicable to protection of MIGWRAs.

## **1. Major Land Development Problems & Objectives**

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The major problems and objectives relating to land development in the Township at the time of the adoption of the last reexamination report which have changed, specifically as a result of the passage of the Highlands Act, the adoption of the Regional Master Plan, and/or the decision of the Governing Body to conform its planning documents to the Regional Master Plan, include the following:

- Incorporate modifications to the underlying objectives, policies and standards, all as outlined in detail, in the “Highlands Area Master Plan Element” approved by the Highlands Council as part of the Township’s Petition for Plan Conformance.
- Provide enhanced stormwater management standards for protection of Municipally Important Groundwater Recharge Areas.

## **2. Extent of Reduction/Increase in Problems & Objectives**

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The extent to which each of the problems and objectives listed in item 1 above, have been reduced or have increased subsequent to the date of the last reexamination report, specifically as a result of passage of the Highlands Act, the adoption of the Regional Master Plan, and/or the decision of the Governing Body to conform its planning documents to the Regional Master Plan, is indicated below, in the same order provided at 1, above:

- Since adoption of the 2013 Reexamination Report, the Township has supplemented the Master Plan with the Lopatcong Township Highlands Element.
- Municipally Important Groundwater Recharge Areas have been identified and the Lopatcong Stormwater Management Ordinance has been reviewed for compliance with Highlands enhanced standards.

## **3. Significant Changes in Assumptions, Policies, Objectives**

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Since the reexamination of the Township Master Plan on June 26, 2013, the Highlands Council has altered its approach to providing protection for groundwater resources by requiring stormwater management practices that incorporate stormwater control measures for and mapping of Municipally Important Groundwater Recharge Areas.

## **4. Specific Recommended Changes to the Master Plan**

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The Planning Board recommends that the Lopatcong Township Highlands Area Master Plan Element be supplemented with specific requirements applicable to the Township’s Municipally Important Groundwater Recharge Areas as detailed in the document titled “Supplements to the Highlands Master Plan Element” attached as Appendix ‘A’.

## **5. Specific Recommended Changes to Development Regulations**

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The Planning Board recommends that the Lopatcong Township Stormwater Management Ordinance, Chapter 199, be supplemented with specific requirements applicable to the Township's Municipally Important Groundwater Recharge Areas as detailed in the document titled "Stormwater Management Ordinance Amendments" attached as Appendix 'B'.

## **6. Changes Recommended for Incorporation of Redevelopment Plans**

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At this time the Planning Board makes no findings or recommendations regarding the incorporation of redevelopment plans pursuant to the Local Redevelopment and Housing Law, P.L. 11992, c.79 (C.40A:12A-1 et al.).

# **APPENDIX 'A'**

## **SUPPLEMENTS TO THE HIGHLANDS MASTER PLAN ELEMENT**

## **SUPPLEMENTS TO THE HIGHLANDS MASTER PLAN ELEMENT**

### Supplemental Amendments to Incorporate Municipally Important Ground Water Recharge Areas

#### **I. SUPPLEMENT TO LAND USE PLAN**

##### **SECTION B. LAND USES**

*Add the following:*

***Municipally Important Ground Water Recharge Area.*** Upon adoption of the appropriate regulatory provisions, any principal and/or accessory use or structure related or devoted to a use which has a significant potential for discharge of hazardous materials, where otherwise permitted by the municipal ordinance, shall be prohibited from any portion of the Highlands Area delineated as a “Municipally Important Ground Water Recharge Area” (as defined and delineated in the Conservation Plan).

#### **II. SUPPLEMENT TO CONSERVATION PLAN**

*Add the following:*

##### **MUNICIPALLY IMPORTANT GROUND WATER RECHARGE AREAS**

Municipally Important Ground Water Recharge Areas (MIGWRAs) are areas having recharge rates above the median recharge rate for the subwatershed in which they are located, and which in the aggregate, provide 40% or greater total recharge volume for the subwatershed. MIGWRAs are preserved or constrained lands that cannot be developed or built upon under current protections. Constrained lands include undeveloped areas within Highlands Open Water buffers as well as moderately and severely constrained steep slopes. Preserved lands are those permanently preserved by local, county, state, federal or non-profit entities. MIGWRAs within the Highlands Area appear in Exhibit B, “Municipally Important Ground Water Recharge Areas.”

The MIGWRA concept provides an alternative for cases in which designated PGWRA lands coincide with properties in which intensive groundwater recharge may be problematic (e.g., areas of extensive underlying carbonate rock). MIGWRAs achieve the same, and in many cases improved results, over recharge volume calculations for PGWRA lands. To be eligible for inclusion in an amended map depicting MIGWRAs, each MIGWRA’s recharge rate must exceed the median recharge rate for the HUC14 subwatershed within which it is located.

In consideration of the land use planning needs, opportunities, and environmental constraints existing in the Township, this Plan establishes MIGWRAs as the optimal means by which the municipality may achieve the 40% or greater ground water recharge volumes sought by the Highlands RMP. While continuing to recognize Highlands PGWRAs, which form the basis for the recharge concept, the Township will rely upon MIGWRAs for purposes of calculating its aggregate recharge volume requirements, and shall incorporate MIGWRAs into any relevant regulatory provisions concerning recharge.

The below-listed goals and objectives, which are identical to those for PGWRAs, will guide the regulation and management of Lopatcong Township Highlands Municipally Important Ground Water Recharge Areas.

1. To protect, enhance, and restore the quantity and quality of Municipally Important Ground Water Recharge Areas.
2. To require use of Low Impact Development (see Lopatcong Township Highlands Area master Plan Element Section J) and other Best Management Practices to maximize natural ground water recharge and minimize the need for engineered recharge methods.
3. To restrict land use and development activities that reduce natural ground water recharge volumes in PGWRAs or that may contribute to or result in degradation of ground water quality, whether directly or indirectly.
4. To avoid disturbance of lands identified as MIGWRAs to the maximum extent feasible, and to minimize such disturbance where it cannot be avoided. Where disturbances do occur in PGWRAs, to require mitigation measures to enhance pre-construction recharge volumes.
5. To prohibit land uses and activities that pose significant risk of ground water contamination from locations delineated as MIGWRAs.
6. To require that Major Potential Contaminant Sources (PCS) (as listed at Appendix A of the Lopatcong Township Highlands Area Master Plan Element) in locations delineated as MIGWRA, incorporate ongoing management of toxic chemical sources and prohibition of non-permitted discharges, so that the potential for ground water contamination is minimized and the opportunity for discharge discovery and control is maximized.
7. To identify and implement opportunities for the restoration or enhancement of recharge in Municipally Important Ground Water Recharge Areas and other lands through such means as retrofitting or rehabilitating stormwater recharge facilities, land management improvements and reforestation.
8. To achieve a net improvement in ground water volume and quality through enhanced infiltration, pretreatment and other available means.

# **APPENDIX 'B'**

## **STORMWATER MANAGEMENT ORDINANCE AMENDMENTS**

## Stormwater Management Ordinance Amendments Lopatcong Township, Chapter 199

All New Jersey municipalities were required to prepare Stormwater Management Plans and adopt a Stormwater Control Ordinance in order to comply with the New Jersey Stormwater Management Rules at N.J.A.C. 7:8. This document provides Highlands-specific amendments required in order to comply with the Highlands Regional Master Plan (RMP) and reflect RMP resource protection standards. These updates/revisions apply to all Highlands Preservation Area lands, as well as those lands located in the Planning Area of conforming towns. It is important to note that if a project is deemed exempt from the Highlands Act, the enhanced standards identified in this ordinance shall not apply.

The following amendments are meant to be inserted into an existing municipal Stormwater Management Ordinance. Standards in this ordinance may be amended upon municipal adoption of a Water Use and Conservation Management Plan.

### **STORMWATER MANAGEMENT ORDINANCE AMENDMENTS:**

#### **SECTION 199-2:** Definitions (*new and amended*)

**Carbonate Rock Area** means an area where rock consisting chiefly of calcium and magnesium carbonates, such as limestone and dolomite, has been identified.

**Current Deficit Area** means any United States Geological Survey 14-digit Hydrologic Unit Code subwatershed area that is identified in the Highlands Regional Master Plan as having negative Net Water Availability, meaning that existing consumptive and depletive water uses exceed the capacity of the ground water supply to sustain.

**Disturbance** means the placement of impervious surface, the exposure or movement of soil or bedrock, or the clearing, cutting, or removing of vegetation.

**Highlands Open Waters** means all springs, wetlands, intermittent and ephemeral streams, perennial streams and bodies of surface water, whether natural or artificial, located wholly or partially within the boundaries of the Highlands Region, but shall not mean swimming pools.

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

**Major development** (*amended definition*) means any development that provides for ultimately disturbing one or more acres of land or increasing impervious coverage by 0.25 acres or more. Disturbance for the purpose of this rule is the placement of impervious surface or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation, or the redevelopment of previously developed sites.

**Maximum extent practicable** means designing stormwater management systems so that all reasonable opportunities for using non-structural stormwater practices are exhausted and a structural BMP is implemented only where absolutely necessary.

**Mitigation** means an action by an applicant providing compensation or offset actions for onsite stormwater management requirements where the applicant has demonstrated the inability or impracticality of strict compliance with the stormwater management requirements set forth in NJAC 7:8, in an adopted regional stormwater management plan, or in this local ordinance, and has received a waiver from strict compliance from the municipality. Mitigation shall include the implementation of the approved mitigation plan within the same drainage area where the subject project is proposed, or a contribution of funding toward a municipal stormwater control project, or provision for equivalent treatment at an alternate location, or any other equivalent water quality benefit as approved by the municipality.

**Municipally Important Ground Water Recharge Area** means preserved or constrained lands that cannot be developed or built upon under current regulations. These areas have recharge rates above the median recharge rate for the subwatershed in which they are located; meaning they provide 40% or greater total recharge volume for the subwatershed. Constrained lands are comprised of undeveloped lands within the Highlands Open Water buffer as well as moderately and severely constrained steep slopes. Preserved lands are those that are permanently preserved by local, county, state, federal or non-profit entities.

**Non-Exempt Project** means any project not eligible for an exemption from the Highlands Water Protection and Planning Act Rules, pursuant to N.J.A.C. 7:38-2.3.

**Redevelopment** means land-disturbing activity that results in the creation, addition, or replacement of impervious surface area on an already developed or disturbed site. Redevelopment includes, but is not limited to: the expansion of a building footprint, addition or replacement of a structure, replacement of impervious surface area that is not part of a routine maintenance activity, and land disturbing activities related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety.

**Regional Master Plan** means the Highlands regional master plan or any revision thereof adopted by the Highlands Water Protection and Planning Council pursuant to N.J.S.A. C.13:20-8.

## **SECTION 119-3. General standards**

### **F: Erosion Control, Groundwater Recharge and Runoff Quantity Standards**

#### **Subsection 1.b:**

*Amended section* (1) The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at Section 199-5,

demonstrate compliance with either (a) or (b) below. Additional standards set forth in subsections (c) and (d) may apply as required.

*New section* (c) Non-Exempt Projects located in a Current Deficit Area: Where the project is located in a Current Deficit Area as identified in Exhibit A, the project shall demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures provide for enhanced recharge standards set forth in (e) below.

*New section* (d) Non-Exempt Projects located in a Municipally Important Ground Water Recharge Area. Where the project is located in a Municipally Important Ground Water Recharge Area as identified in Exhibit B, the following standards shall apply:

- i. Where disturbance is permitted in accordance with this subsection, it shall be limited to no greater than 15% of the Municipally Important Ground Water Recharge Area on the site and shall preferentially be sited on that portion of Municipally Important Ground Water Recharge Area that has the lowest groundwater recharge rates.
- ii. Where disturbance to the Municipally Important Ground Water Recharge Area is permitted, the project shall demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures provide for enhanced recharge standards set forth in (e) below.

*New section* (e) Enhanced Recharge Standards: Non-Exempt Projects that are subject to the enhanced recharge requirements by (c) or (d) above, shall apply the following standards, either:

- i. Recharge 125 percent of the percentage of the average annual pre-construction groundwater recharge volume for the site; or
- ii. In addition to complying with the infiltration requirements of section 4.F.1(b), retain on-site with no discharge, the Stormwater Quality Design Volume (SWQDv), defined as the runoff from the 1.25-inch, 2-hour rainfall event. Where meeting the infiltration requirement will not result in retention of the full SWQDv, the major development shall retain any additional volume to meet the requirements of this section through additional infiltration, or through evapotranspiration or capture and on-site re-use of rainfall.

Subsection 1.b (3): The following types of stormwater shall not be recharged:

*New Section* (c) Carbonate Rock Areas, where surficial or subsurface karst features have been identified and recharge facilities cannot be designed in a manner that would eliminate the concentrated subsurface release of stormwater. (*Note: The mere presence of carbonate bedrock does not constitute a karst feature*).

Subsection 1.b

*New Section* (5) Mitigation Required for Non-Exempt Projects: In lieu of on-site recharge, the applicant shall be responsible for providing mitigation of the groundwater recharge volume in the required amount. The applicant should provide mitigation within the following areas, in order of priority:

- (a) the same development site where feasible;
- (b) the same HUC14 subwatershed, or
- (c) an interrelated HUC14 subwatershed where no feasible option exists in the same HUC14 subwatershed.

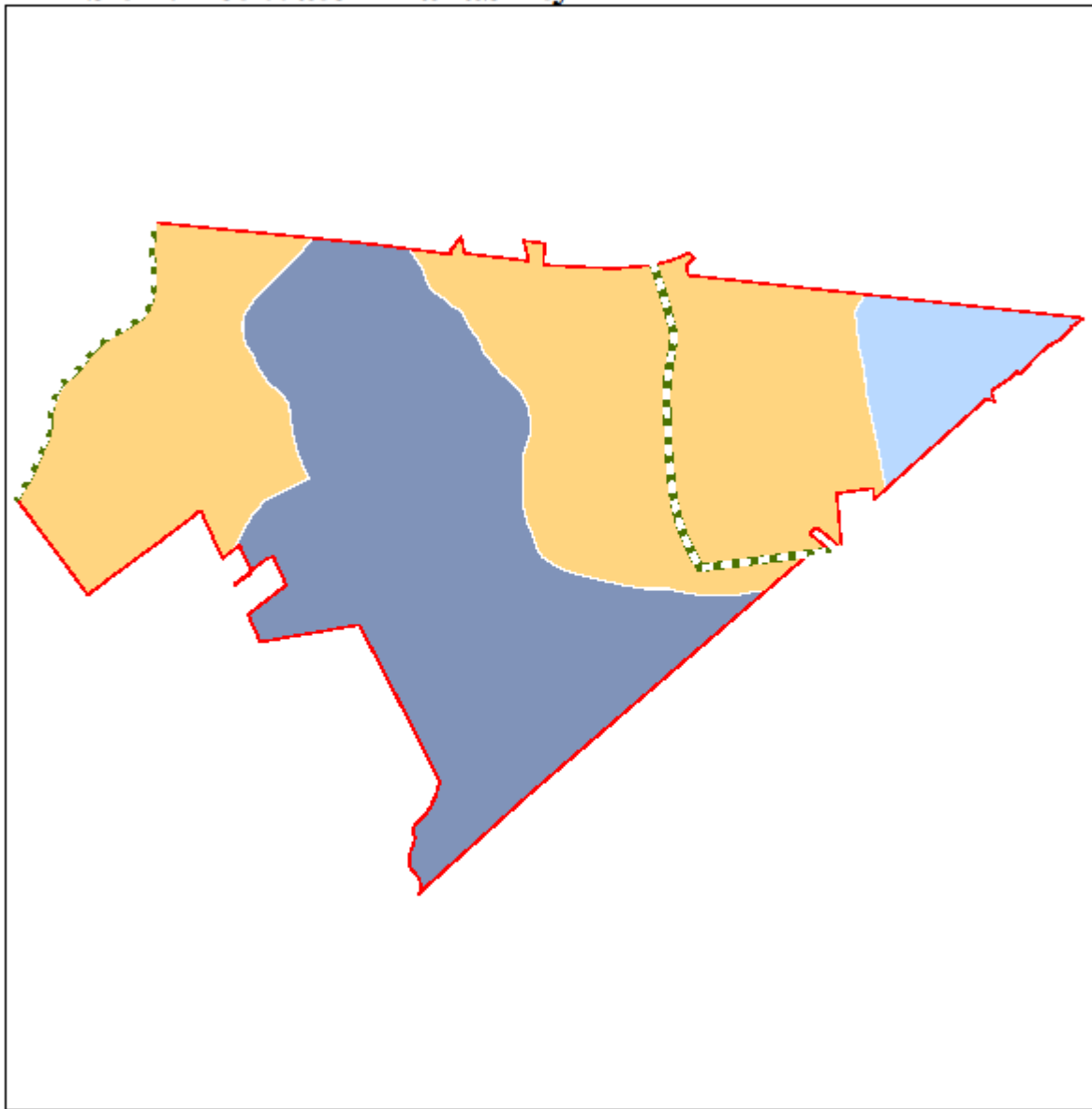
If none of the above options are feasible or achievable, then the applicant shall comply with the mitigation requirements set forth in paragraph H.

*(New section)*

H. Mitigation Required for Non-Exempt Projects: A waiver from strict compliance with the requirements of the Municipal Stormwater ordinance shall be approved by the municipality only in those cases where an applicant has demonstrated the inability to strictly comply with any standard of the municipal stormwater ordinance. A waiver from strict compliance for such projects can only be obtained if the applicant agrees to undertake a suitable mitigation measure identified in the mitigation section of the municipality's Stormwater Management Plan. In such cases, the applicant must submit a mitigation plan detailing how the project's failure to strictly comply will be compensated. In cases where a waiver is granted, an applicant should provide mitigation, if possible and/or practical, within the same drainage area within which the subject project is proposed, or contribute funding toward a municipal stormwater control project, or provide for equivalent treatment at an alternate location, or provide for another equivalent water quality benefit, in lieu of implementing the required stormwater control measures on their specific site.

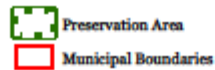
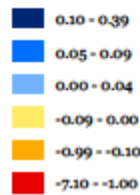
TOWNSHIP OF LOPATCONG  
STORMWATER MANAGEMENT ORDINANCE

**Exhibit A: Net Water Availability**

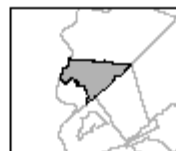


Net Water Availability By HUC14

Million Gallons Per Day (MGD)



**Lopatcong Township**



April 2019  
1 inch = 0.631 miles



Source: Lopatcong Township Highlands Area Master Plan Element.





TOWNSHIP OF LOPATCONG  
STORMWATER MANAGEMENT ORDINANCE

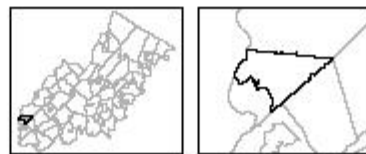
**Exhibit B: Municipally Important Ground Water Recharge Areas**

**DRAFT**



**Lopatcong Township**

-  Highlands Preservation Area Boundary
-  Municipal Boundary
-  Proposed Municipally Important Groundwater Recharge Areas
-  Lopatcong Township Highlands Center



July 2019  
1 inch = 0.631 miles

