Township of Denville: Environmental Resource Inventory Update
PUBLIC MEETING
Wednesday, May 14, 2014

Denville Environmental Commission & Green Team

The Land Conservancy of New Jersey: Barbara Heskins Davis
What is an Environmental Resource Inventory (ERI)?

- Compilation of materials identifying the Township’s environmental features
- Includes geology, lithology, topography, hydrology and biology
- Incorporates cultural and historic features, natural resources, and existing land use to present existing environmental material as a cohesive whole for the community
- Based on the best available scientific data
ERI Update includes the following sections:

- Geology
- Geography and Topography
- Soils
- Air
- Climate
- Hydrology
- Wetlands
- Wildlife
- Vegetation
- Land Use and Land Cover
- Flood Hazard Areas
- Known Contaminated Sites
- Historic and Cultural Features
- Public and Preserved Lands

Rockaway River
ERI Update includes the following maps:

- Roadway
- Bedrock & Surface Geology
- Topography
- Slopes
- Soil Series
- Watershed
- Surface Water Bodies
- Surface Water Quality
- Aquifer Recharge Potential
- Bedrock and Surficial Aquifers
- Public Wellhead Protection
- Vernal Habitats and Wetlands
- Endangered Species Habitat
- Land Use/ Land Cover
- FEMA Flood Zones
- Preserved and Public Lands
Map 2. Bedrock Geology

Denville Township, Morris County

- **Amphibolite (Ya)**
- **Biotite-Quartz-Feldspar Gneiss (Yb)**
- **Biotite-Quartz-Oligoclase Gneiss (Ylb)**
- **Pyroxene Gneiss (Yp)**
- **Pyroxene Granite (Ypg)**
- **Hornblende Granite (Ybh)**
- **Microantiperthite Alaskite (Yma)**
- **Microperthite Alaskite (Yba)**
- **Quartz-Oligoclase Gneiss (Ylo)**
- **Diorite (Yd)**

**Data Sources:** NJGS Bedrock Geology 2007; Morris County Office GIS Services, NJDEP, NJDOT

This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not state-authorized. This map is to be used solely for planning purposes, and does not take the place of a survey.

Map Prepared March 24, 2014

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Surface Geology
Denville Township, Morris County

Map 3. Surface Geology

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Map Prepared March 24, 2014

Data Sources: NJGS Surface Geology 2004; County of Morris Office GIS Services, NJDEP, NJDOT
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Topography
Denville Township, Morris County
Map 5. Slopes

Denville Township, Morris County

Data Sources: NNJ Highlands Council LiDAR Data 2008; County of Morris Office GIS Services, NJDEP, NJDOT

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Severe and Moderately Constrained Slopes
Denville Township, Morris County

According to the NJ Highlands Council, Severely Constrained Slopes are all lands with slopes of 20% or greater and lands within Riparian Areas with slopes of 10% and greater. Moderately Constrained Slopes are all non-Riparian Area lands having a slope of 15% to less than 20% which are forested.
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Map 8. Watershed
Surface Water Quality
Denville Township, Morris County

Data Sources: County of Morris Office GIS Services, NJDEP, NJDOT

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Category One Water:
Trout Production

Category One Water:
Trout Maintenance

Non-Category One Water:
Non Trout

Municipal Boundaries

Water Body

River/Streams

0 1,000 2,000 4,000 6,000 8,000 Feet
The areas with the highest recharge potential are those with the lowest ranking number; thus, a ranking of 11 indicates a higher rate of potential recharge than a ranking of 98.

Map 11. Aquifer Recharge Potential

Data Sources: NJGS Aquifer Recharge Potential 2005, NJDEP; County of Morris Office GIS Services, NJDOT

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Public Wellhead Protection Areas
Denville Township, Morris County

Data Sources: County of Morris Office GIS Services, NJDOT, NJDEP, NJGS
Well Head Protection for Public-Community Water-Supply Wells in NJ 2011
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*Please refer to the ERI text for specific site information

Map 13. Public Wellhead Protection Areas
Vernal Habitats Identified by the Landscape Project 2012 and Wetland Types
Denville Township, Morris County

Map 14. Vernal Habitats and Wetlands

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Map Prepared March 24, 2014

Data Sources: NJDEP Landscape Project Version 3.1 (2012), NJDEP; County of Morris Office GIS Services, NJDOT

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Map of Patches with Endangered Species Habitats Identified by the Landscape Project
Denville Township, Morris County

Data Sources: NJDEP Landscape Project Version 3.1 (2012), NJDEP; County of Morris Office GIS Services, NJDOT
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FEMA Flood Zones
(2010 DFIRM Preliminary)
Denville Township, Morris County

Zone A: Special Flood Hazard Areas where flood insurance is mandatory (100-year flood or base flood)
Shaded Zone X: Identified limits for 500-year flood
DFIRM: Digital Flood Insurance Rate Map

Data Sources: County of Morris Office GIS Services, NJDEP, NJDOT, FEMA digital flood insurance rate map (2010 Preliminary)
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Benefits of an Environmental Resource Inventory (ERI)

- Complementing to and a directing force of the Township’s Master Plan
- Supplies critical guidance and information to land development ordinances
- Aides municipal land preservation initiatives
- Allows a more informed decision making process regarding future planning and utilization of the Township’s resources
THANK YOU!

Contact:
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Environmental Commission & Green Team

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