

Using Your ERI

ANJEC Commissioners' Course

2017



Unlock the Potential of Your ERI



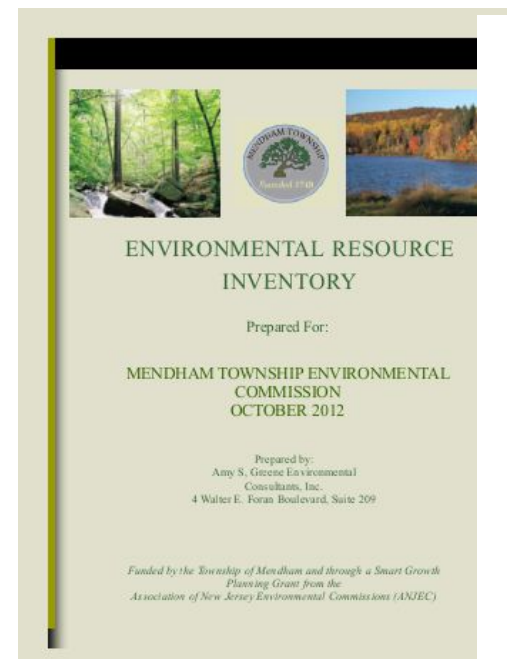
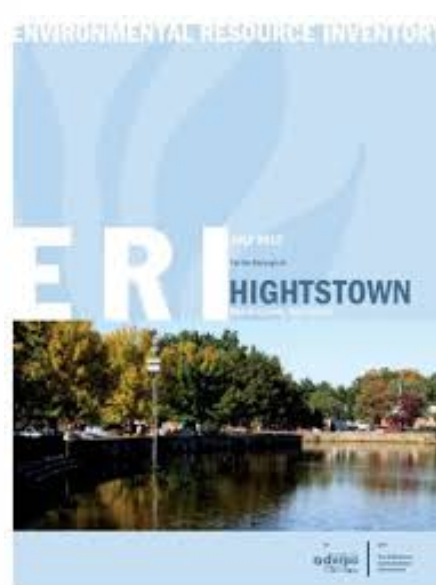
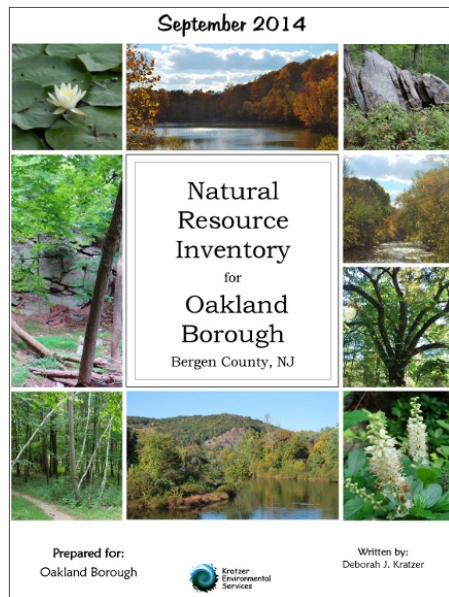
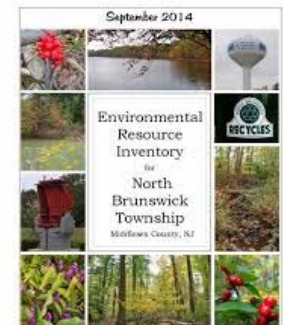
Where To Begin

- Find your ERI. Not just the “book” but also the disc containing the computer files use to assemble it.
- Review and explore the ERI with the Commission members. Consider inviting others.
- Review the “Metadata” section. This is the “data about the data” used in the ERI.
- Know what your have. Own it!



If You Have a “Digital” ERI....

- Many municipalities have invested in the creation of a “digital” ERI.
- Most are underutilized! Time to Grow!



A 2013 SURVEY OF POTENTIAL VERNAL POOLS
IN HAMILTON TOWNSHIP, MERCER COUNTY, NEW JERSEY
Prepared for the Township of Hamilton
by
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Kratzer Environmental Services
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The Metadata Section Will Look Something Like This:

APPENDIX B: METADATA FOR GIS DATA LAYERS USED FOR THE BEDMINSTER TOWNSHIP NATURAL RESOURCE INVENTORY

Descriptions of Data Layers: Data Disclaimers in Appendix A apply to the use of these data layers and the maps created from them. The user is responsible for understanding the accuracy limitations of the digital data layers, as documented in the accompanying report and metadata summaries, and the metadata files which accompany the data.

Source, Bedminster Environmental Resource Inventory, 2010, Kratzer Environmental Services

Obtain Access to A GIS Program and a Qualified Operator

“A geographic information system (GIS) lets us visualize, question, analyze, and interpret data to understand relationships, patterns, and trends.

GIS benefits organizations of all sizes and in almost every industry. There is a growing interest in and awareness of the economic and strategic value of GIS.” Source: ESRI

Think about who else in municipal government or your community might want to apply GIS to solve problems and to plan better.

Finding the Connection



- Your municipality might already have the capability.
- Is there capability already on the EC?
- Municipal engineers and planners may have the capability but usually charge by the hour unless they are “in-house”.
- The consultant that prepared you inventory might be available by the hour.
- University GIS programs, students with access to GIS.
- Non-profit environmental organizations, land trusts and watershed associations

Doing it Yourself

- GIS software “good enough to get in the game” is available a low or no cost.
- You may have a capable operator available or someone willing to learn the “simple” free software.
- If you go this route, think about continuity: what if our operator leaves? Consider a backup.



Low Cost (free) GIS Software

- The dominant manufacturer of GIS software is a company called ESRI that produces a broad array of GIS products. See: <http://www.esri.com/>
- **ArcGIS Explorer** – is a GIS data viewer which supports a variety of display, query, and data retrieval applications and can be downloaded and used for free from ESRI. This freely available software offers an easy way to perform basic GIS functions.

Some Ideas



- **Site Plan Review:** Many Commissions use their ERI's as a first step in site plan review. This can be done even without GIS capability.
- The project site can be compared to any of the ERI's existing data layers. Parcel boundaries are needed to locate projects.
- The project can be placed in its environmental context: e.g. watershed, forested areas, agricultural lands.
- Resources contained on the parcel can be revealed: wetlands, floodplains, steep slopes, forests, soils,
- These findings can then be included in the EC's report to the Planning Board and illustrated with projected images.

Master Plan Review

- Master Plans are required to be re-examined every 10 years but may be reexamined more frequently if desired.
- The Municipal Land Use Law defines what must be done at a minimum during the re-reexamination. (40:55D-1 et. seq., Section 89)
- Review Section 89: these requirements form a **framework for investigation.**
- Commissions should be a part of this process.

GIS and Changes over Time

- With the proper data, GIS can be a powerful tool to depict and quantify land use change over time. This is a powerful tool for Master Plan reexamination.
- An excellent example to consult for ideas can be found at:
<http://gis.rowan.edu/projects/luc/map.html>

Special Plans

- GIS is ideal for doing a number of “special plans” that may or may not become part of the Master Plan.
- Some examples include Open Space and Recreation Plans, Agricultural Retention Plans, Historic Preservation Plans, surface Water Protection Plans, etc., etc.

Special Environmental Analyses

- **Riparian Area (stream buffer) Condition:** evaluation of the land cover condition of stream corridors.
- **Forest Cover:** Locates and measures the forests.
- **Wells and Contaminated Sites:** combines several DEP data layers to identify possible risks to potable wells.

Thank You!

- This presentation will be posted on ANJEC's website shortly.
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