

Resource Center



Assessing impact using natural resource inventories

By **Jessica Ferrer**, Princeton Hydro, LLC
and **Mark Gallagher**, Princeton Hydro, LLC

“The existing site vegetation consists of a wooded area”
“The site hydrology will remain unchanged”
“No wildlife were visible during a site visit”
“The existing site contains a number of plants and animals”
“This site does not provide suitable amphibian habitat...
documented reptiles include American Toad”

Late on a Tuesday night a development applicant stands before a tired planning board; a site plan for a new residential subdivision is the topic of conversation. The applicant assures the board that the site's 30 acres of woods contain little to no wildlife as verified by the project engineer. The project Environmental Impact Statement (EIS) clearly states that the hydrology will remain unchanged, any environmental impact will be minimized, water quality in the adjacent wetlands will be improved by the retention pond, and wildlife will benefit from the new non-native landscaping. Although these conclusions may seem ridiculous, sadly they are often the norm in an EIS.

This scene replays itself across New Jersey time and time again. What happens next depends on the local development review process. In a community like Readington Township in Hunterdon County, the applicant would not satisfy the land development ordinance. The Readington code §148-102 requires that “all applicable material on file in the Township pertinent to evaluation of regional impacts shall also be considered, including the Township *Master Plan* and Natural Resources Inventory (NRI).”

Consequently, the board could ask the applicant to resubmit an EIS that assesses the compatibility, or lack of compatibility, of the project with the NRI, *Master Plan*, and other relevant planning documents. The ordinance also requires that applicants specifically address potential impacts on thirteen environmental components

including artificial light and energy use. Unfortunately, Readington Township is currently among the minority in New Jersey.

How an EIS can fall short

Most communities in New Jersey require some type of EIS for major subdivision applications. Unfortunately, this document often functions only as a checklist item for municipal development applications, and not as an integral component of land use planning. As a result, these documents are often poorly conceived, routinely fail to identify any impacts, and rarely rely on local resources such as an NRI for their preparation.

One town has an ordinance mandating that applicants submit “an environmental inventory, including a general description of the vegetation, soils, topography, geology, surface hydrology, climate and cultural

resources of the site, existing man-made structures or features, and the probable impact of the development on the environmental attributes of the site.”

This is typical language found in municipal land development ordinances, lending itself to a superficial report on environmental conditions and the identification of potential impacts. Asking for a general description allows an unqualified individual to jot down a few sentences without leaving his/her computer. Google Earth and other websites provide sufficient information to generate such a general description.

Because the ordinance does not request information on groundwater or wildlife, the resulting EIS may also neglect to report on groundwater recharge, overlook the presence of threatened and endangered species, and erroneously conclude that the proposed development will have little to no environmental impact. With such an ordinance in place, the local community has little recourse to request or even expect a thorough assessment of environmental conditions and impacts.

NRI to the rescue

One way to improve the quality of an EIS is to require that applicants rely on municipal planning documents, such as the community’s NRI, also known as an Environmental Resource Inventory (ERI). Created under the direction of the environmental commission, an NRI can be a powerful planning tool since it compiles federal, state, and local data sources to characterize a community’s natural and cultural resources. New mapping technologies and data methodologies allow these documents to thoroughly capture information on geology, air quality, climate, topography, surface and subsurface hydrology, land use, wildlife, vegetation, cultural and historic landmarks, and other components relevant to local quality of



View of Alexauken Creek from West Amwell’s Watershed Protection Plan. Photo by Princeton Hydro

life. An NRI reflects the unique identity and concerns of the community.

While most municipalities have NRIs, they are not often used by applicants to guide either the preparation of plans or EISs. As a catalog of the character and resources of the community, an NRI creates a single reference for information on environmental, cultural, and historical impacts of planning decisions.

Towns will often adopt an NRI into the Master Plan as a component of the Land Use Element. Environmental commissions can use these documents to help the town plan and manage open spaces, foster public awareness, and review development applications. The NRI is most valuable when integrated into local planning processes; sadly it is this step that is frequently missing.

Getting developers on board

By incorporating the NRI into the site development application process, municipalities can require developers to prepare an objective EIS that reflects the interests of the municipality. Amending the town’s land development ordinance to directly reference this requirement is key. It forces the applicant to recognize all of the environmental components described in the NRI. An ordinance that simply presents a laundry list of items may overlook important items unique to a community.

The municipality may forget to update the land development ordinance every

time a new environmental issue or concern surfaces. Requiring the applicant to refer to municipal documents such as the NRI increases the likelihood that the resulting document will not only be a thorough assessment, but will accurately and objectively detail potential impacts on resources pertinent to the community.

An NRI also documents the physical character of the community. Incorporating the use of such documents into the site development application deepens the probability that the proposed use will align with community goals and objectives, and improve the overall quality of the impact analysis.


EIS criteria

It is important that an EIS be prepared by at least one qualified individual who documents and explains his/her process. Frequently, an insufficient EIS results because the preparers do not have the necessary qualifications to identify vegetation by age and class, describe hydrology, or recognize the preferred habitat for each of the State's six-dozen threatened and endangered species.

To address this inadequacy in the process, towns, such as Bethlehem Township in Hunterdon County, have passed ordinances requiring that a competent individual or individuals perform the EIS and that their qualifications, background, and a description of the methodologies are submitted with the application. This reduces the likelihood that a preparer will go beyond his/her expertise in development of the EIS.

Environmental regulations, planning processes, and local ordinances provide a framework for guiding development in a manner that minimizes environmental degradation and maintains a community's character. With dwindling ratable revenues, climbing costs and budget deficits weighing on the minds of local officials, the middle of a recession may seem like an unlikely time to address the disconnections in the development review process. However, this pause in construction presents a timely opportunity for local

governments to evaluate and restructure the regulations and processes that guide planning and growth in the community.

It is the development review process that dictates the final landscape of a community. If the process is not upheld through stringent review of the development applications, then environmental, health, and safety protection measures may fail. The effective integration of tools such as an NRI into the review processes is fundamental to succeeding in environmental protection and effective land use management. 

MORE INFORMATION

- ANJEC resource paper: The Environmental Resource Inventory – <http://www.anjec.org/pdfs/EnvironmentalResource04.pdf>
- For copy of Bethlehem and Readington EIS ordinances – ANJEC Resource Center: resourcecenter@anjec.org, (973) 539-7547
- Contact the authors at Princeton Hydro: Jessica Ferrer, Jferrer@princetonhydro.com; Mark Gallagher, MGallagher@princetonhydro.com or (908) 237-5660

ANJEC depends on our business members to help pay for the cost of printing the *ANJEC Report*. Please let them know that you saw their ad here. Remember, however, that ANJEC does not necessarily endorse any of these firms.