

DUTCHESS LAND CONSERVANCY

STEWARDSHIP NEWSLETTER

A guide for owners of easement protected land

Summer 2002

Preventing Light Pollution

Light pollution is an increasing concern in many communities across the country and an issue that is drawing the attention of New York State and local governments. Light pollution is caused by light fixtures that are brighter than needed to achieve a given task, and by fixtures that misdirect light away from their intended area of use. This results in an unnecessary increase of the general illumination of the sky (“uplighting”) or in glare that affects public roads or neighboring properties (“light trespass”). In most cases, light pollution can be reduced or eliminated through the proper installation of lighting fixtures that are designed to direct light where it is needed.

Susan Harder, a light pollution activist from East Hampton and volunteer member of the International Dark Sky Association, recently spoke on the topic at a public forum in the Town of Rhinebeck. She noted that light pollution first became a public issue through the efforts of astronomers in the US west whose observatories were negatively affected by the increased brightness of the overall sky due to the affects of light pollution. However, she emphasized that light pollution is not just a visual issue: studies have found that lighted buildings can negatively affect migrating birds, light directed at ponds can cause algal blooms, and all-night lighting sources can lead to a higher level of spring dieback in some tree species. Street lighting that is too bright or produces too much glare can greatly reduce drivers’ visibility placing pedestrians at risk.

According to Ms. Harder, through the efforts of members of the International Dark Sky Association, many communities throughout the country have declared themselves

continued page 3



Examples of Residential Cutoff Fixtures

Siting Your Home

By owning easement protected land, you have already exhibited your desire to protect the beauty of Dutchess County’s countryside. As you start to consider potential house sites on your property, remember that a good house site and design is one that complements its setting, its neighborhood, and its location. To enhance the value of your property, start with a good plan. Remember that you are investing in your community—learn from existing settlement patterns. Dutchess County’s rural beauty is valuable; respect the past and be considerate of what currently exists.

Look at your property from off site as well as from your neighbor’s to ensure that your house site won’t disrupt other’s views. Try not to alter the area’s visual character dramatically.

Siting your house to effect the least amount of change to the landscape will protect the property’s most valuable assets. Design your house to blend into rather than intrude upon the landscape. If you are building on a slope, step the building down with the slope of the land. Consider building closer to the road. Cluster the house, garage and barns together. Historic settlement patterns group buildings together within large expanses of open land. Consider color – natural or historic colors such as browns and grays tend to blend into the landscape. Brighter colors tend to stand out.



Instead of a crestline site, consider building along the side of a hill. Locating your house on the crest of a hill increases its exposure to winter winds, the strong summer sun, and disrupts the crestline and offsite views. Building lower on the landscape will reduce the prominence of a new structure and can still provide superior views as well as protection from the elements. Retain as many existing trees as possible.

continued page 2

What to Know about your Wetlands

If there are wetlands on your property, you should be aware of the local, state and federal regulations that apply. Wetlands of all sizes (no matter how small) are regulated by the United States Army Corps of Engineers. In many cases, activity in small wetlands is pre-permitted. The New York State Department of Environmental Conservation (DEC) regulates all wetlands 12.4 acres and greater. DEC regulated wetlands are depicted on freshwater wetlands maps that are available for inspection; however, exact determination of wetland boundaries requires field delineation by a qualified expert. A permit may be required for any construction (including buildings, roadways, septic systems, bulkheads, dikes or dams), excavation, application of pesticides, or placement of fill or drains within 100 feet of a wetland or regulated stream. Some towns also have local wetland ordinances.

DLC conservation easements provide additional protection of all wetlands and streams. For any activity that may affect a wetland on a property with a conservation easement, DLC approval is required even if approval has already been granted by DEC, the Army Corps of Engineers, or your town.



Contacts

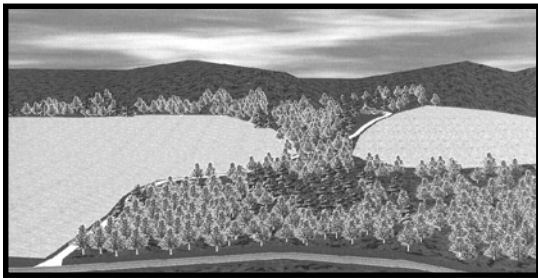
United States Army Corps of Engineers
New York District, Corps of Engineers
Federal Plaza, New York, NY 10278
212-264-3996

Department of Environmental Conservation
Region 3 South Putt Corners Road
New Paltz, NY 12561
845-256-3054

Publications

The Joint Application for permit and the Freshwater Wetlands Program Applicant's Guide are available from the Department of Environmental Conservation.

House Siting continued

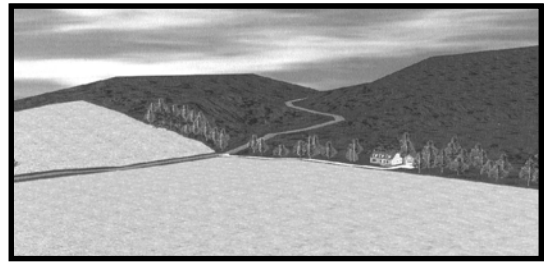


A simple road cut through a forest can effectively destroy an ecosystem by introducing new predators that may terminate a more sensitive species. Driveways are best located at the edges of fields and forests, set back from streams and ponds, following the natural contour of the land as much as possible.

Siting construction at the "Edge", the area between field and forest, is the least wasteful of resources and does not fragment the forest. It is important to maintain the existing plant diversity and provide a transition from the built to natural environment. "Cleaning up" underbrush in woodland areas eliminates important habitat cover. By retaining existing vegetation, your landscaping is already done in a low maintenance, natural style. This will also provide cover and food for wildlife. The less you alter the landscape, the more wildlife you will enjoy.

Try not to over-clear a site. Start small and clear only what you must. Clear additional trees as you get to know your site. It's much less costly to clear a bit at a time than to try to replant large specimens. Mark the features you want to save during construction. Remember that it only takes six inches

of fill on a root system to kill or injure a tree. Stockpile plants removed from the construction site for use later. It could save a considerable amount of cost for plant material.



Rather than locating your house in the middle of a field, consider moving the site to the field's edge. A house sited in a large open field has no relationship to its surroundings and reduces the viability of the field for agricultural production. You also lose any protection from the wind and sun that the landscape may offer, as well as any immediate hope of privacy. As a result, you may have to invest in extensive and expensive planting. Siting the house at the edge of the field next to the woods will give the house shelter from the wind, shade from the summer sun, privacy, and views.

Designing your new house can be both exciting and overwhelming. Remember to respect the character of your surroundings and let nature help guide your design. You may actually find the task easier, less expensive, and ultimately more satisfying.

Adopted from DLC's *Planning and Siting Your House, a Guidebook* - contact DLC to receive your free copy of this brochure.

Light Pollution continued

“dark sky communities” and adopted local laws that dramatically reduce light pollution. In fact, New Mexico has officially declared its nighttime sky to be an historic resource.

The Healthy And Safe Outdoor Lighting Act of 2002 has been introduced in the state legislature. This proposed law would require that state agencies deploy appropriate lighting outside all buildings, along state highways, etc. (with some reasonably stated exemptions), allow for the designation of Dark Sky Areas in certain parts of the state, and require the drafting of a model lighting law to be provided to all towns in the state for possible adoption. The Dark Sky Association and Illuminating Engineering Society of North America (IES) are also expected to publish a technically enforceable model law this fall.

Ms. Harder emphasized that light pollution is almost 100 percent preventable through the proper installation of well designed lighting fixtures that are no brighter than needed to achieve their purpose. The International Dark Sky Association emphasizes the use of “full cutoff design fixtures.” Such fixtures are designed to direct light to exactly where it is needed and prevent uplighting, glare, and light trespass. Full cutoff design fixtures are now widely available for use in commercial buildings and public spaces and are becoming available for residential use. Ms. Harder brought a full cutoff design fixture with her for audience inspection: the “GlareBuster.” The GlareBuster’s design allows for the replacement a 300-500 watt halogen floodlight with a 100 watt incandescent light or 28 watt compact fluorescent light bulb, thereby saving energy and operational cost in addition to preventing light pollution. The Dark Sky Association’s web site has photographs of numerous other fixtures, most of which are very attractive and appropriate for residential use – including floodlights, safety lighting, and pole lighting.



Examples of Post and Wall Mounted Cutoff Fixtures

As public awareness increases, we are confident that most rural landowners will take light pollution into account when they design for their properties. Typically, light-related problems have simple solutions that landowners can adopt by making informed choices. Consulting with a professional light designer is an additional step landowners may wish to take. Most DLC conservation easements include clauses to prevent the installation of lighting that causes glare and light pollution. Whether or not a property has a conservation easement, however, all landowners can insist that their contractors, architects, and suppliers provide them with full or partial cutoff design fixtures that are “dark sky friendly.”

Resources

1. Organizations:

The International Dark Sky Association, 3225 N. First Ave., Tucson AZ 85719 USA. (520) 293-3198 (voice), <http://www.darksky.org/ida/index.html>

SELENE, NY (Sensible and Efficient Lighting to Enhance the Nighttime Environment) <http://selene-ny.org/>. Source for information about legislation in New York.

Illuminating Engineering Society of North America, a professional body of lighting engineers. 120 Wall Street, Floor 17 New York, NY 10025-4001 212-248-5000, www.iesna.org

2. Dark Sky Oriented Lighting Products

The International Dark Sky Association, maintains an excellent list of cutoff and full cutoff fixtures at its website <http://www.darksky.org/ida/fixtures/fixtures.html>, including Floods-Spots & Accessories, Residential, Motion Sensor/Security, Landscape and post-mounted lighting. Pictures are included.

The GlareBuster is available at 1-800-548-8714. See their website for a list of distributors, www.theGlareBuster.com.

3. Light Designer

Naomi Miller Lighting, 53 23rd Street, Troy, NY 12180-1913. 518.272.2745, nmld@nycap.rr.com. Ms. Miller is a fellow of the Illuminating Engineers Society of North America (I.E.S.) and a member of the International Dark-Sky Association. She is a lighting designer whose practice addresses light pollution issues.

4. Other Resources

Light Cost Calculator created by Tim Poulsen shows the costs of running a light for a year for various types of lighting. <http://www.netacc.net/~poulsen/lightcost.html>

Contact Information

For questions about agriculture and assessments:

Cornell Cooperative Extension	845-677-8223
Soil and Water Conservation District	845-677-8011
Dutchess County Department of Real Property Tax Services	845-486-2140
Department of Agriculture and Markets	518-457-7076
Farm Service Agency	845-677-3194
Farm Bureau	845-868-7895

For questions about natural resources:

Department of Environmental Conservation	845-256-3000
Natural Resources Conservation Service	845-677-3952
Dutchess County Environmental Management Council	845-677-5253

For questions about your easement:

Contact Dutchess Land Conservancy Staff	845-677-3002
---	--------------

For questions about forestry and forest tax law:

DEC Forestry Unit	845-256-3111
-------------------	--------------

For questions about wetlands & wildlife:

DEC Wetlands/Wildlife Division Region 3	845-256-3000
---	--------------



The Conservancy's conservation easement program relies heavily on establishing a positive relationship as quickly as possible with new owners of protected land. To help us do so, we ask you to let us know about property sales as soon as they occur. Thank you for your help!

Name:

Telephone:

- I have recently sold (some or all) of my easement protected property to (name and address):
- My property is currently on the market.
- I am interested in meeting with the Conservancy staff to discuss the details of the conservation easement on my property (staff can meet at your convenience).
- In the next six months to a year, I anticipate making improvements on my property including:

Conservation Easement Amendments

Conservation easements can be amended. However, amendments can only be accepted if they increase the conservation value of the easement. Due to the increasing amount of time DLC is spending on requests, we now require an amendment application fee of \$2,000 to cover the legal costs and staff time associated with all amendments.



DUTCHESS LAND CONSERVANCY
2908 ROUTE 44
MILLBROOK, NY 12545
845-677-3002
WWW.DUTCHESSLAND.ORG

NON-PROFIT
ORGANIZATION
US POSTAGE
PAID PERMIT #51
Millbrook, NY