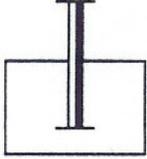


State Commission Reports on Light Pollution



In 1993, the state legislature established the New Jersey Light Pollution Study Commission to consider the problem of light pollution, the potential for monetary savings and other benefits from reducing light pollution, and the recommended steps to address this issue. The first meeting of the Commission was held March 1995 and in April 1996 it submitted its report to the Governor and legislature.

The report's introduction states:

- The causes of light pollution are many and the effects can be glare, energy waste, light trespass (nuisance light) and sky glow. Most glare can and should be prevented. Glare affects the ability of drivers to perceive objects or obstructions clearly. Particularly sensitive to this problem are elderly drivers.
- Energy is wasted when excessive levels of illuminances are used. Inefficient luminaires can spill unwanted light well outside the intended target area.
- Light trespass may be an invasion of privacy. Most obtrusive lighting conditions can be avoided.
- Inappropriate use of outdoor lighting can deteriorate the natural nighttime environment, particularly in areas preserved for flora and fauna. In addition, sky glow reduces the ability to observe the starry night sky.

The Commission's report offers 12 recommendations to reduce light pollution and its adverse effects. The improved lighting conditions will achieve greater safety and reduced energy consumption and will help preserve the environment.

Local Actions

Local planning boards can accomplish several of the recommendations during site plan review. Municipalities should be sure that their ordinances and site improvement standards require these provisions. The report recommends implementation of the following actions during site plan review:

- Nationally recognized lighting recommendations for illuminance levels and uniformity ratios should be followed, such as contained in the Illuminating Engineering Society of North America (IESNA) Lighting Handbook.
- Architectural and sign lighting should be designed to minimize light that does not illuminate the target area.
- Lighting of building exteriors should be minimized or eliminated during those hours when it is not needed. Lighting controls (such as timers, dimmers, motion sensing devices and photosensors) should be encouraged.
- Commercial billboard lighting should be aimed at the target area and installed in such a fashion that spill light is kept to a minimum.

State Actions

The report further recommends that the state should provide training for municipal engineers and planners. Anyone involved with lighting should be aware of light pollution concerns and how to address them through lighting design. The state should provide municipalities with a set of guidelines to use as a starting point in developing standards and ordinances to reduce light pollution.

The report suggests that the state can educate other groups as well. It should provide the general public information about light pollution and how to minimize it. This can be accomplished through general instruction in schools, manufacturers' literature, company flyers, state programs or other mechanisms. The state also should offer light pollution training and education opportunities to lighting professionals, contractors, installers, inspectors and others.

Eatontown Environmental Commission member John Batinsey, who chaired the Light Pollution Study Commission, suggests contacting the Governor's office and your legislators to encourage action on the recommendations in the report.

The state can directly implement several of the lighting recommendations through the projects it funds. Utility companies, lighting installers, and others involved with lighting design also should follow the recommendations in the report, including:

- Roadway and area lighting should be designed to minimize misdirected and upward light. The use of cutoff luminaires should be considered the first choice in design. Where the use of internal cutoff luminaires is not possible, the use of externally mounted shields to the luminaires may be substituted if feasible.
- The use of materials and devices, such as reflectors, should be evaluated and considered in lieu of additional lighting.
- The state should provide exemplary lighting installations (demonstration projects) to serve as working models of good lighting practice with respect to light pollution concerns.

Finally, the Commission recommended that the state should develop a plan to protect areas of New Jersey it determines to be especially suitable for astronomical observations or which provide nocturnal benefits to flora and fauna. These areas should be considered for designation as "dark areas," where lighting is prohibited or limited.

The appendix of the report contains an overview of light pollution ordinances from across the country. For a copy of the report contact the NJ Office of Legislative Services at 1-800-792-8630. ✨