



Model Town Plan Language: Dark Skies and Responsible Outdoor Lighting

Part 1. Purpose

This model is intended to help Vermont municipalities define, promote, and encourage dark-sky protection and Responsible Outdoor Lighting through municipal plans. It supports necessary outdoor lighting while promoting illumination that is safe, efficient, appropriately limited, and protective of neighboring properties, public roads, scenic and natural resources, community character, and the night sky.

Towns may adopt, adapt, or omit sections to reflect local conditions, plan structure, and policy priorities.

Part 2. How to Use This Model

This document provides model language organized around the required municipal-plan elements in 24 V.S.A. § 4382. Towns may incorporate selected language into existing plan chapters or combine it into a consolidated dark-sky section.

The explanatory introductions describe how outdoor lighting relates to each municipal-plan element. The model objectives, policies, and implementation actions may be adopted or adapted to reflect local conditions, plan structure, and policy priorities and may guide future bylaws, development-review standards, procurement policies, capital planning, and other municipal measures.

This model does not itself create enforceable standards. Requirements applicable to landowners or applicants must be implemented through applicable bylaws, ordinances, permit conditions, procurement standards, or other authorized municipal measures.

Municipalities should adapt this model to local conditions, including differences among downtown, village, neighborhood, commercial, industrial, recreational, rural, and conservation areas. Responsible Outdoor Lighting does not require identical lighting conditions in every area; lighting should respond to the location, activity, and demonstrated need while following the principles of Responsible Outdoor Lighting.

Part 3. Model Language by Municipal Plan Element

Each subsection corresponds to a required municipal-plan element under [24 V.S.A. § 4382](#), explains its connection to outdoor lighting, and provides model language in an outlined box for towns to adopt or adapt.

24 V.S.A. § 4382(a)(1): Objectives, Policies, and Programs

This element provides the overarching policy framework for protecting dark skies and promoting Responsible Outdoor Lighting throughout the municipal plan. It establishes the Town's general objective and policy, which may be supported by more specific language in the land-use, transportation, municipal-facility, natural-resource, scenic-resource, regional coordination, energy, housing, economic-development, and implementation elements.

Objective

1. Protect dark night skies and scenic nighttime character as part of the Town's community identity, environmental quality, wildlife habitat, public safety, and quality of life.

Policies

1. Outdoor lighting shall be designed and operated as Responsible Outdoor Lighting and provide useful illumination only where and when needed.

24 V.S.A. § 4382(a)(2): Land Use

Outdoor lighting is part of the intensity, character, and impact of land use. The contrast between modestly lit downtowns, villages, neighborhoods, and other developed areas and largely dark rural countryside is an important element of Vermont's traditional settlement pattern, scenic character, and sense of place. The land-use element therefore provides a basis for addressing how the location, design, and operation of lighting affect development patterns, neighboring properties, community character, and sensitive natural areas.

Land Use Policies

1. Development and outdoor lighting shall protect the Town's dark skies, scenic nighttime character, and traditional settlement pattern, including modestly lit developed centers and largely dark rural, scenic, and natural areas.
2. Outdoor lighting may be appropriate in downtowns, village centers, and other developed areas when it is designed and operated as Responsible Outdoor Lighting.
3. Persistent nighttime lighting shall be avoided in rural, conserved, forested, agricultural, scenic, and ecologically sensitive areas unless necessary for safety, access, emergency response, or essential operations. Where lighting is necessary, it shall be designed and operated as Responsible Outdoor Lighting and use adaptive controls where appropriate.
4. Lighting shall be considered part of the intensity and character of land use and reviewed together with building location, site design, access, parking, signage, landscaping, screening, scenic impacts, and natural-resource protection.

24 V.S.A. § 4382(a)(3): Transportation Plan

Outdoor lighting is part of the design and operation of roads, intersections, parking areas, sidewalks, paths, transit facilities, and other circulation infrastructure. The transportation element provides a basis for addressing how lighting affects visibility, safety, accessibility, glare, scenic-road character, neighboring properties, and nearby natural resources.

Transportation and Parking Policies

1. Roadway, driveway, sidewalk, path, and parking-area lighting shall be designed and operated as Responsible Outdoor Lighting, support safe visibility for people of different ages and abilities, and avoid glare, abrupt contrasts between brightly lit and darker areas, excessive brightness, and light directed toward drivers, pedestrians, cyclists, or neighboring properties.
2. Parking-area lighting shall be reduced or extinguished when not needed, including after business hours or after the activity served has ended, except where minimum security lighting is necessary.
3. Lighting along scenic, rural, and low-traffic roads should be avoided unless necessary for documented safety reasons.

4. Lighting near sensitive resources shall avoid spill light into forests, wetlands, waterways, agricultural lands, conserved lands, and neighboring properties.

24 V.S.A. § 4382(a)(4): Utility and Facility Plan

Outdoor lighting is part of the design, operation, maintenance, and cost of municipal facilities and public infrastructure. The utility and facility element provides a basis for addressing lighting associated with municipal buildings, roads, streetlights, parking areas, recreation facilities, public works facilities, and other public property through facility planning, procurement, capital planning, maintenance, and replacement programs.

Municipal Facility Policies

1. New, replacement, or substantially modified municipal outdoor lighting shall be designed and operated as Responsible Outdoor Lighting and, where applicable, use DarkSky Approved, DLC LUNA-qualified, or products meeting equivalent responsible-lighting standards.
2. Streetlights and public-area lighting should be installed or retained only where necessary for safety, access, or public use and should use adaptive controls where practicable.
3. The Town should inventory municipal lighting and prioritize fixtures that do not meet Responsible Outdoor Lighting principles for retrofit, replacement, dimming, shielding, or removal.
4. Outdoor lighting for recreation facilities shall be confined to the activity area and extinguished promptly after activities have ended, except for limited lighting necessary for safe departure, maintenance, or emergency response.

24 V.S.A. § 4382(a)(5): Natural Areas, Scenic and Historic Features, and Resources

This element provides the primary statutory basis for dark-sky policy. Dark night skies and the visibility of the night sky are scenic resources associated with Vermont's landscape, rural heritage, and nighttime community character. Darkness is also a condition of the natural nighttime environment, and artificial light can affect wildlife, habitat quality, ecological function, and sensitive natural areas. This element therefore supports policies addressing dark skies as both a scenic and natural resource.

Artificial Light at Night and Natural Resource Protection

Artificial light at night can affect wildlife behavior, habitat quality, ecological function, and the natural nighttime environment. Lighting near sensitive natural resources should therefore be avoided, minimized, or carefully controlled.

Natural Resources Policies

1. Persistent nighttime lighting shall be avoided in forest blocks, habitat connectors, wetlands, riparian areas, shorelands, conserved lands, parks, wildlife habitat, and other ecologically sensitive areas unless necessary for safety, emergency response, or essential operations.
2. Where lighting is necessary near sensitive natural resources, it shall be designed and operated as Responsible Outdoor Lighting and use adaptive controls where appropriate.
3. Lighting near sensitive natural resources should use the narrowest practicable spectrum and the lowest practicable color temperature, and blue-rich light should be avoided.
4. Subdivision, site-plan, and conditional-use review should consider and avoid unnecessary lighting impacts on wildlife habitat, forest blocks, habitat connectors, wetlands, riparian areas, conserved lands, waterways, and other sensitive natural resources.

Scenic Nighttime Character

Dark skies and the visibility of the night sky are scenic resources that contribute to rural character and community identity. Poorly designed lighting can diminish these resources through glare, uplight, sky glow, excessive brightness, and nighttime visual clutter.

Scenic Resource Policies

1. Dark skies and scenic nighttime character shall be protected as scenic resources.
2. Development and outdoor lighting shall avoid prominent nighttime lighting, glare, uplight, sky glow, excessive brightness, and visual clutter affecting scenic roads, ridgelines, public views, village edges, agricultural landscapes, conserved lands, rural countryside, and other visually sensitive areas.
3. Signs, facade lighting, parking-area lighting, recreational lighting, and commercial lighting shall be designed and operated as Responsible Outdoor Lighting.

4. Scenic-impact review for major development, commercial development, subdivisions, public facilities, and projects visible from public roads or public vantage points should address outdoor-lighting impacts.

Historic Resource Policies

1. Outdoor lighting associated with historic buildings, districts, sites, structures, and cultural landscapes shall protect their historic character and avoid glare, excessive brightness, visual clutter, and unnecessary illumination of architectural features.
2. Architectural and facade lighting should be limited to significant features, directed only onto the intended surface, extinguished when not needed, and designed to avoid uplight and spill light.
3. New lighting within or adjacent to historic districts should be compatible with historic character while meeting Responsible Outdoor Lighting principles.

24 V.S.A. § 4382(a)(7): Implementation Program

The implementation program provides a basis for identifying the bylaws, development-review procedures, procurement and capital-planning standards, enforcement measures, partnerships, education, and other municipal actions needed to carry out the Plan's dark-sky and Responsible Outdoor Lighting policies.

Implementation Actions

1. Amend zoning, subdivision, site-plan, conditional-use, and sign regulations to require Responsible Outdoor Lighting, prevent adverse lighting impacts, and require lighting plans where warranted that identify the purpose of proposed lighting and demonstrate that its location, output, extent, and operating schedule are limited to the identified need.
2. Adopt municipal procurement and capital-planning standards, inventory municipal lighting, and prioritize needed upgrades or removal.
3. Establish procedures for nonconforming lighting, inspection, correction, and enforcement.
4. Apply this Plan in Act 250 and other regional, state, utility, transportation, and public-facility reviews.

5. Coordinate with utilities and efficiency programs and provide public guidance.

24 V.S.A. § 4382(a)(8): Relationship to Adjacent Municipalities and the Region

Outdoor lighting, light trespass, and sky glow can cross municipal boundaries. This element provides a basis for addressing how development and public or utility infrastructure within the Town, adjacent municipalities, and the surrounding region may affect dark skies, scenic nighttime character, natural resources, and community character across municipal boundaries.

Regional Coordination Policies

1. Development and public or utility infrastructure shall not cause an undue increase in light trespass, glare, uplight, sky glow, or other degradation of dark skies and scenic nighttime character in the Town or adjacent municipalities.
2. The Town should coordinate with neighboring municipalities, regional planning commissions, utilities, and state agencies, and participate in Act 250 and other applicable proceedings, to protect dark skies and address cross-boundary lighting impacts.

24 V.S.A. § 4382(a)(9): Energy Plan

Outdoor lighting affects municipal, commercial, institutional, and residential energy use. The energy element provides a basis for coordinating energy-efficiency improvements with Responsible Outdoor Lighting so that upgrades reduce energy consumption without increasing brightness, blue-rich light, operating duration, glare, light trespass, or sky glow.

Energy Policies

1. Outdoor-lighting upgrades shall conserve energy, be designed and operated as Responsible Outdoor Lighting, and avoid increased brightness, blue-rich light, operating duration, glare, light trespass, and sky glow.
2. Municipal and other large-scale lighting projects should use DarkSky Approved, DLC LUNA-qualified, or equivalent products, as applicable.

3. The Town should encourage utilities, efficiency programs, contractors, and property owners to incorporate dark-sky standards into outdoor-lighting upgrades.

24 V.S.A. § 4382(a)(10): Housing Element

Outdoor lighting is part of the design and operation of residential development, including subdivisions, multifamily housing, shared driveways, parking areas, walkways, entrances, signs, and common areas. The housing element provides a basis for promoting safe and practical lighting that protects neighboring properties and nighttime character without creating unnecessary costs or barriers to needed housing.

Housing Policies

1. Residential outdoor lighting should be designed and operated as Responsible Outdoor Lighting and avoid illumination of neighboring homes, yards, roads, and natural areas.
2. New residential subdivisions and multifamily developments should include lighting plans or standards addressing glare, light trespass, sky glow, and over-lighting.
3. Common-area lighting should be limited to that necessary for safe access and reduced or extinguished when not needed.
4. Rural residential development should avoid persistent nighttime lighting that alters the nighttime character of rural, forested, agricultural, or conserved areas.

24 V.S.A. § 4382(a)(11): Economic Development Element

Dark night skies are a scenic and economic asset that supports Vermont's community identity, quality of life, visitor experience, outdoor recreation, lodging, stargazing, astronomy, wildlife viewing, and other forms of dark-sky tourism. The economic-development element provides a basis for protecting these assets while addressing the lighting impacts of businesses, farms, institutions, recreation facilities, lodging, signs, parking areas, and public infrastructure.

Economic Development Policies

1. Dark skies are an economic and scenic asset that supports tourism, outdoor recreation, lodging, stargazing, astronomy events, night-sky

interpretation, wildlife viewing, quality of life, property enjoyment, and community identity.

2. Economic development should be compatible with the Town's community character, scenic resources, and dark night skies.
3. Commercial, institutional, lodging, agricultural, recreational, and tourism-related development, including signs, facade lighting, parking areas, and security lighting, shall use lighting designed and operated as Responsible Outdoor Lighting.
4. Business lighting should be reduced or extinguished after closing, except for necessary security lighting, which should be motion-activated and limited to the area requiring illumination.

Part 4. Definitions

The following definitions may be used in the municipal plan or reserved for implementing bylaws.

Adaptive Controls: Technology or operational practices that reduce or extinguish lighting when it is not needed, including timers, dimmers, motion sensors, curfews, occupancy sensors, and similar controls.

Blue-Rich Light: Light with a relatively high proportion of short-wavelength blue light, which can increase sky glow, contribute to glare, affect wildlife and ecological processes, and disrupt normal nighttime conditions.

Color Temperature: A measure of the apparent color of light, expressed as correlated color temperature in Kelvin. Lower values generally appear warmer and tend to contain less short-wavelength blue light, although color temperature alone does not fully describe a light source's spectral characteristics.

DarkSky Approved: A product, luminaire, lighting design, installation, or project certified under an applicable DarkSky International approval program.

DLC LUNA: A voluntary qualification and qualified-products list administered by the DesignLights Consortium for eligible outdoor LED products meeting specified energy-efficiency, light-distribution, spectral-quality, and controllability requirements intended to reduce light pollution.

Equivalent Responsible-Lighting Standards: Product, design, installation, or performance standards that provide substantially equivalent protection through requirements addressing uplight, glare, light trespass, excessive output, color characteristics, controllability, and other relevant lighting impacts.

DarkSky Vermont: Model Town Plan Language

Fully Shielded: A fixture constructed and installed so that no light is emitted above the horizontal plane passing through the lowest light-emitting part of the fixture.

Glare: Excessive brightness or direct view of a light source that causes visual discomfort, reduces visibility, or creates a safety hazard.

Light Trespass: Light that falls beyond the property, use area, or target area intended to be illuminated.

Over-Lighting: Lighting that exceeds the level reasonably necessary for the task, area, or use being illuminated.

Persistent Nighttime Lighting: Outdoor lighting that remains on continuously or for extended periods rather than only when needed.

Responsible Outdoor Lighting: Lighting that is necessary, fully shielded and directed downward, limited in output and duration, warm-colored, and controlled to avoid glare, light trespass, uplight, sky glow, and unnecessary ecological or scenic impacts.

Sky Glow: The brightening of the night sky caused by artificial light emitted upward or reflected upward.

Uplight: Light emitted above the horizontal plane.

Warm-Colored Lighting: Outdoor lighting with the lowest practicable correlated color temperature for the intended use. Lighting of 2700 Kelvin or lower should generally be preferred, with 2200 Kelvin or amber lighting preferred where practicable in rural, scenic, residential, astronomical, and ecologically sensitive areas.