



Office of Long Island Sound Programs
Fact Sheet
for
LANDSCAPE PROTECTION AND
VISUAL IMPACTS

Why do we need to protect landscapes?

The face of coastal Connecticut is often pictured in terms of historic New England fishing villages, beach communities, and quaint villages. However, ongoing development pressures such as skyrocketing real estate values, tear-downs of summer cottages, and rebuilds of much larger permanent residences tend to result in a much different visual landscape. The visual quality of the landscape, in turn, plays a large role in maintaining community identity and quality of life in coastal areas. Though visual resources are statutorily protected, regulators at state and local levels have had difficulty in interpreting and implementing these existing standards in specific cases. This guidance is intended to equip coastal managers and municipalities with tools to discuss, prevent, and mitigate negative impacts to scenic resources.

What are the statutory policies and authorities that apply?

The Connecticut Coastal Management Act (CCCMA), the foundation upon which the coastal management program is based, contains a general statement in §22a-91(5) that the coast is rich in “aesthetic resources, and §22a-93(15)(F) defines as an “adverse impacts on coastal resources” the “degrading visual quality through significant alteration of the natural features of vistas and view points.”







Additionally, the **Connecticut River Gateway Commission** is a state-local compact charged with protecting the scenic and ecological integrity of the lower Connecticut River. The Commission is organized within the Connecticut General Statutes chapter 477a §25-102a through §25-1021. The statutes declare that lower Connecticut River and the towns abutting the river possess “unique scenic, ecological, scientific and historic value contributing to public enjoyment, inspiration and scientific study” and charge the Commission with preventing “deterioration of the natural and traditional river way scene for the enjoyment of present and future generations of Connecticut citizens.” The Commission accomplishes this through land protection and zoning standards to be enforced by the participating towns in the Gateway Zone.

What are Visual Impacts?

Visual impacts include changes in appearance of the landscape as a result of developments, and they can be positive or negative, direct or indirect, temporary or permanent, single or cumulative, and can vary in magnitude and significance. Factors to consider include extent of potential visibility of the proposed development, views and viewers affected, resultant impacts on quality of views, and magnitude of visual impact as determined by duration, nature, scale and other criteria.* Significant negative impacts occur when character, quality, or public enjoyment of a resource is diminished or impaired.

Which views does Coastal Management Act policy protect?

At the state level, DEP coastal programs focus on protecting public views of statewide scenic significance. This may include natural views as well as built views that typify a cultural landscape. The policy is intended to protect views generally accessible to the public, even if they are on private lands, but not private individual views. The types of resources this policy protects are:

-  State or National Wildlife Refuges, Management Areas, Preserves or Sanctuaries (e.g. Stewart B. McKinney National Wildlife Refuge Units, Barn Island Wildlife Management Area, Hammonasset Natural Area Preserve);
-  Trails of National or State significance (e.g. East Coast Greenway, Branford Trolley Trail,);
-  A site of cultural or historical significance including sites on or eligible for inclusion in the National Register of Historic Places (e.g. Avery Point Lighthouse, Mystic Seaport);
-  National, State, or Municipal Parks or Forests (e.g. Harkness Memorial State Park, Cockaponset State Forest, Lighthouse Point Park);
-  Coastal Public Access sites (most are included in the Coastal Access Guide online at <http://www.lisrc.uconn.edu/coastalaccess/index.asp>);
-  All other resources identified as “outstanding scenic assets” in the April 1975 Long Island Sound Study New England River Basins Commission’s *Shoreline Appearance and Design: A Planning Handbook*;

* Institute of Environmental Assessment and The Landscape Institute. *Guidelines for Landscape and Visual Impact Assessment*. 1995

- Public natural resources or public landscapes visited by the general public, in part for the use, observation, enjoyment and appreciation of natural or cultural visual qualities (e.g. Gateway Region of Lower Connecticut River, Long Island Sound).

What can a municipality do to minimize visual impacts?





Actions at the municipal level may hold the most potential power in determining the visual quality of coastal landscapes in Connecticut. There may be views that are important to local communities that do not necessarily constitute *views of statewide significance*. Local entities, including harbor management commissions and planning and zoning boards, should work together to identify local scenic resources and create protections for those resources.

- The first step is to determine the scenic views the town wishes to protect through a public process. If community meetings have recently been conducted to create comprehensive plans, it may be possible to glean from that process what *views the town wants to protect*. Are there local public access points or historic structures the town wants to preserve views from or of? For example, towns in the Lower Connecticut River Gateway Region will probably want to protect the views from ridgeline to ridgeline as best as possible along the river. From these public processes, create visual zones, e.g. views that are "pristine," or areas more appropriate for development, e.g. views that encompass structures similar to the proposed development.
- The second task is to identify what *about* those views are worth protecting. Is it the natural landscape? The lack of visible built structures? No structures at all, visible or not? If there are dilapidated structures, are they detracting from the view, or adding character? What makes this space special--is it cultural, natural, other? Consider what the potential threats are to the view. What stands out is most often development that is out of character with the surrounding environment.
- Thirdly, write into local management plans and municipal zoning regulations measures to protect what you've identified in step 2. Harbor Management Commissions have a particular responsibility to consider potential upland development that may impact shoreline views. (For suggested language for Harbor Management Plans, please see the CT DEP OLISP publication "Old Riverport Harbor Management Plan.") It is essential for local boards and commissions that have overlapping authority to work together to ensure a consistent visual resource policy. The community planning process mentioned in step one can help in cases of jurisdictional overlap, because the entire town has identified landscape areas it wants to manage in different ways to protect different visual resources. Cumulative impacts should be considered in areas suggested for development, as has been done in some towns' dock studies. Keep in mind that visual impacts are only one factor for consideration and must be balanced with navigational, ecological, and economic considerations in implementing CCMA policies.

How can municipalities evaluate visual impacts in Coastal Site Plan Reviews?

Based on CCMA visual impact policies, municipal agencies may require applicants to submit information detailing visual resources, public access points (visual and physical access) and all mitigation options appropriate for the site. Views of statewide significance as well as any scenic areas identified in local plans should be considered.

Considerations for the commission or board when acting upon a coastal site plan include:

-  the characteristics of the site and surrounding location;
-  the potential effects, both beneficial and adverse, of the proposed activity on the scenic landscape and future development possibilities;
-  conflicts between the proposed activity and any scenic preservation goals or policies stated in CGS §22a-91(5), §22a-93(15)(F), and local comprehensive plans or harbor management plans; and
-  prevention, minimization, and mitigation of adverse visual impacts.

If the proposed activity impacts a view of statewide significance, OLISP staff may request the applicant to demonstrate that the proposed activity does not diminish the public enjoyment and appreciation of the qualities of the scenic resource. Similarly, local agencies can request such demonstration for views of local significance. An applicant's mere assertion that the design is in harmony with or does not diminish the values of the listed resource may not be sufficient for the purposes of determining visual impacts. In some cases, an applicant may need to provide a professional assessment of the visual impact of the proposed activity, including viewshed analyses or simulations conducted by a licensed landscape architect or a professional in a related field.

Are there tools that applicants and municipalities can use for visual simulation of project proposals?

The National Oceanic and Atmospheric Administration's Coastal Services Center (NOAA CSC) has created tutorials on how to use free CanVis software to depict coastal development scenarios in 2D and 3D. Advanced users may create scale-accurate depictions of dock development. This software is not intended for the creation of legal evidence but rather as a tool for discussing alternative scenarios. Visual Simulations may assist developers, applicants, and decision-makers in deliberations. The website also hosts downloadable files of docks, boats, vegetation, houses, and other structures to assist with coastal development simulation. See <http://www.csc.noaa.gov/canvis/> or for more information, please contact CSC at (843) 740-1200.

Are there methods to minimize or mitigate visual impacts?

Mitigation can be defined as measures taken to reduce adverse impacts on the environment. Visual impact mitigation strategies can be categorized into three general groups:[†]

- 1) Professional Design and Siting.
 - a) Screening
 - b) Relocation
 - c) Camouflage/Disguise
 - d) Low Profile
 - e) Downsizing
 - f) Alternate Technologies
 - g) Non-specular materials
 - f) Lighting
- 2) Maintenance and Removal of Derelict or Abandoned Structures
- 3) Offsets

A discussion of each follows:

1. Professional Design and Siting. A properly sited and designed project is the best way to mitigate potential visual impacts. The best project locations are where there are no significant scenic resources within view of the project site. Through sensitive design treatment, elements of particular concern may be sited or dimensioned in a way that reduces or eliminates impacts on significant visual resources. Sometimes circumstances prevent the realization of optimal siting and sometimes engineering, economic or other constraints preclude optimal dimensioning or other appropriate design techniques. Under those circumstances, other mitigation strategies should be considered.

Effective mitigation can be ensured by requiring project sponsors to consider the following tools to mitigate impacts:

a. Screening. Screens are objects that conceal other objects from view. They may be constructed of soil, rocks, bricks, or almost anything opaque. Though vegetation is not completely opaque, it can function as a screen if a sufficient mass is planted or retained from the original site. In Connecticut, an effective technique to retain vegetated ridgeline appearance is to refrain from clear-cutting in³ order to maintain a mature vegetated screen. Screens may be natural, e.g. vegetation, or artificial, e.g. fences and walls. Screens may appear natural e.g. wood, stone, or may appear artificial, e.g. plastic, metal. In natural settings it is generally better to employ natural materials, while in urban places a broader range of materials are appropriate. The type of screening you choose may have unintended impacts. Screening considerations include:

[†] The NYSDEC Program Policy "Assessing and Mitigating Visual Impacts" details most acceptable visual impact mitigation strategies. They are adapted here for Connecticut's context.

Screens constructed from soil are called berms. Berms may appear natural e.g. blend with nearby topography, appear artificial, e.g. geometrical or symmetrical shapes, or vegetated or non-vegetated. The type appropriate for the site depends upon functional design intent and the character of the surrounding area.

Properly sized and placed screens may completely conceal an object, while improperly sized and placed screens may fail to conceal. Screens may block desirable views when improperly placed.

Screens have their own visual qualities. At times, they may have a greater visual impact than the object to be concealed and/ or may draw attention to the object to be concealed.

b. Relocation. A facility component may be relocated to another place within the site to take advantage of the mitigating effects of topography and vegetation.

c. Camouflage/Disguise. Colors and patterns of color may conceal an object or its identity. Disguise may take many forms, and is limited only by the imagination of the project designers.

d. Low Profile. Reducing the height of an object reduces its viewshed area.

e. Downsizing. Reducing the number, area or density of objects may reduce impacts; e.g. creating visual porosity in building mass by separating large buildings into separate units may increase views of waterbodies from public thoroughfares.

f. Alternate Technologies. Substituting one technology for another may reduce impacts because of a difference in size or height of the substitute technology.

g. Non-Specular Materials. Using building materials that do not shine may reduce visual impacts. This may be particularly useful for project proposals along waterbodies, where reflectivity is often increased.

h. Lighting. With respect to regional issues, such as a tall combustion exhaust stack or radio tower, the Federal Aviation Administration (FAA) requires certain lighting for public transportation safety. These impacts may be considered unavoidable unless lower profiles can be achieved. Consideration should be given to off-site light migration, glare and “sky glow” light pollution. Lighting should be sufficient for and not exceed the function of the structure, e.g. decorative dock lighting may be considered excessive.







2. Maintenance and Removal of Derelict or Abandoned Structures. How a landscape and structures within the landscape are maintained has visual implications. “Eyesores” result from neglect. Removing an object from the landscape after its useful life is over reduces the duration of a visual impact. In terms of visual impact, three maintenance and/or removal solutions are most relevant: 1) the total removal from the site of all structural components and restoration to an acceptable condition, usually with attendant

re-vegetation; 2) partial removal of structural components, such as elimination of visually impacting structures; and 3) conditions designed to maintain an abandoned structure and site in an acceptable condition that precludes “eyesores” or site and structural deterioration.

3. Offsets. Correction of an existing visual detraction within the viewshed of a proposed project may qualify for an offset or compensation for project impacts. A decline in the landscape quality associated with a proposed project can, at least partially, be "offset" by the correction. In some circumstances a net improvement may be realized. Offsets are appropriate in sensitive locations where significant impacts from the proposed development are unavoidable, where other mitigations strategies would be uneconomic, or where other applicable mitigation strategies are only partially effective. Offsets should be employed when significant improvement can be expected at reasonable cost. An example of an offset might be the removal of an existing abandoned structure that is in disrepair (i.e. an “eyesore”) to offset impacts from a proposal within visual proximity to the same scenic resource.

If significant visual impacts remain after all economic and effective mitigation strategies have been incorporated into the proposed project design, then local agencies and/ or OLISP staff can work with the applicant to ensure that impacts are minimized through visibility mitigation strategies. In cases where design elements must be manipulated to reduce the visual impact, the applicant may be required to consult with a licensed architect, landscape architect or a professional in a related field.

Questions for local agencies considering mitigation strategies include:

-  Were all mitigation strategies considered and applied to the maximum extent practicable?
-  Will the mitigation strategies selected be effective in avoiding or minimizing adverse visual impacts?
-  Were the costs of mitigation for other impacts (e.g. ecological, navigational) considered and were all mitigation investments prioritized accordingly?
-  Are the estimated costs of all mitigation insignificant (for example, are the costs of visual mitigation taken together with all other mitigation less than 10% of the total project cost)?
-  Were the mitigation strategies employed consistent with previous similar applications? If not, was the reasoning for any changes reasonable and justified? If this is the first application of its kind, is this the type of precedent the agency wants to set?
-  Was the mitigation cost effective? For example, if fully mature vegetation with an immediate screening effect costs 10 times the amount that less mature

vegetation would cost, is it appropriate to require the less costly option if its full screening effect can be realized in say, 3 years?

➤ Were offsets and decommissioning considered?

It is important to bring the project sponsor into the discussion of mitigation strategies. If more than one mitigation strategy meets all environmental protection needs, the applicant's needs and preferences should be considered.

Are there comparative methodologies in neighboring states?

The states of Maine and New York both apply visual impact assessment strategies. To obtain copies of the New York State Department of Environmental Conservation Program Policy "Assessing and Mitigating Visual Impacts" or Maine's Chapter 315 "Assessing and Mitigating Impacts to Existing Scenic and Aesthetic Uses" and its accompanying assessment matrices, please contact OLISP at (860) 424-3034.