

***Standards of the
Connecticut River Gateway Commission***

***In Accordance with the Provisions of
Chapter 477a
Section 25-102D***

Originally Adopted October 24, 1973

Amended

January 22, 1976

May 28, 1992

February 26, 2004

October 1, 2018

June 25, 2021

February 11, 2022

May 25, 2023

GATEWAY STANDARDS

Section I – Application

These standards will apply to the “Conservation Zone” as defined in Sec. 25-102c of the Connecticut General Statutes as it now exists or may thereafter be amended. No regulated activity hereunder will commence prior to the issuance of a valid permit by the appropriate local authority having jurisdiction, in accordance with these standards, and no such permit will be granted unless the issuing authority finds upon appropriate evidence that the proposed activity is compatible with the ***preservation of the natural or traditional riverway scene*** and consistent with the purposes of Chapter 477a of the Connecticut General Statutes as it now exists or may hereafter be amended.

Pursuant to Section 25-102d(a)(2), The Connecticut River Gateway Commission hereby adopts these standards “to prevent deterioration of the natural or traditional riverway scene, provided such standards will not discourage constructive development and uses of such properties within the Conservation Zone which are consistent with the purposes of” Chapter 477a of the Connecticut General Statutes. *(added 2018)*

The provisions of individual member towns regarding casualty losses will govern should any existing or future structure in the Gateway Conservation Zone be damaged or destroyed in circumstances specified in each town’s regulations. *(added 2018)*

Section II – Definitions

The following terms will have the indicated meanings as used in these standards:

<i>Act</i>	Connecticut Public Act 73-349
<i>Attic</i>	The space between the ceiling beams of the top story and the roof rafters.
<i>Building</i>	Any structure having a roof and intended for shelter, housing or enclosure of persons, animals or materials.
<i>Coastal Jurisdiction Line (CJL)</i>	The location of the topographical elevation of the highest predicted tide from 1983 to 2001, based on the most recent National Tidal Datum Epoch published by NOAA and described in terms of feet of elevation above the North American Vertical Datum of 1988. This replaces “high tide line” as the line of jurisdiction waterward of which State authority occurs. PA 12-101. <i>(added 2018)</i>
<i>Commercial Cutting</i>	Any cutting or removal of forest tree species which is not covered under the definition of non-commercial cutting contained herein.
<i>Commercial Cutting Plan</i>	A plan showing the applicant’s property and abutting property owners, a description of the activity to be undertaken, and a certification by a public or consulting forester that the plan is consistent with the “Minimum Standards for Cutting Timber” set forth in Appendix A of this report.
<i>Commission</i>	The Connecticut River Gateway Commission. Any municipal commission having jurisdiction is referenced specifically by name, e.g., the [Planning and] Zoning Commission, Zoning Board of Appeals, or as the local authority. <i>(amended 2018)</i>
<i>Connecticut River</i>	Those portions of the Connecticut River or any of its tributaries or associated wetlands located within the Conservation Zone. <i>(added 2021)</i>
<i>Conservation Zone</i>	That area along the lower Connecticut River defined in Section 22a-102c of the Connecticut General Statutes in which the Connecticut River Gateway Commission is charged with the protection of the “natural and traditional riverway scene”. <i>(added 2018)</i>
<i>Coverage</i>	The percentage which the aggregate building area of all buildings on a lot bears to the total area of that lot.
<i>Developed Area</i>	<i>Developed Area</i> shall be defined by one of the following procedures: (1) An area adjacent to the Connecticut River or its tributaries and associated wetlands which has within the 50 foot Riparian Area immediately landward of the Coastal Jurisdiction Line been characterized by buildings and construction of greater density than average in the Conservation Zone in such a manner so as to make the

retention or replacement of vegetation impractical, infeasible, or inconsistent with the traditional riverway scene, and which has been or may be mapped and designated by the [Planning and] Zoning Commission as a Developed Area for the purposes of these Standards and approved by the Gateway Commission. *(added 2018)*

(2) The fifty (50) foot Riparian Area will also be considered as “Developed Area” if clearing or constructions have previously occurred in such a manner so as to make the retention or replacement of vegetation within said fifty (50) foot riparian area impractical, infeasible or inconsistent with the traditional riverway scene, as determined by [Planning and] Zoning Commission for the purposes of these Standards in the context of a pending land use application, and approved by the Gateway Commission prior to the approval of such application *(amended 2021)*

Earth Materials Removal

The removal, excavation or mining of minerals, sand, gravel, clay, bedrock, peat, loam or topsoil.

Enlarge and/or Extend

Any change to an existing structure or structure which in any way enlarges the envelope of the structure(s), either horizontally or vertically. *(added 2018)*

Erosion and Sedimentation Control Plan

A plan which sets forth measures to be undertaken for the control of erosion and sedimentation.

Grade

The finished ground level adjoining the base of all exterior walls of a building or structure and any related earth retaining structure.

Height

The vertical distance between a horizontal plane through the highest point of a building or structure, excluding chimneys, and the lowest point of a building or structure which is visible above existing natural grade prior to site grading. The height of any retaining wall constructed to create a site platform, and of any backfill along the foundation in excess of the existing natural grade, will be included as part of the measured height. *(amended 2004)*

Human Occupancy

The use of an enclosed space having a means of egress, light, ventilation and access to sanitary facilities to house any person or persons for the purpose of living, working or playing.

Light Pollution

Excessive, misdirected, or obtrusive light from artificial sources emanating from a site shone into the sky, onto the land or into the water column of the Connecticut River and its tributaries, including but not limited to site and architectural lighting, lighting on private residential docks, and up-lighting of trees or other site features, which may result in: brightening of the night sky, inhibiting the observation of stars and planets; light trespass onto neighboring

properties including the Connecticut River; visual glare and discomfort; or significant disruptions to wildlife and ecological cycles. *(added 2023)*

- Local Authority*** The Zoning Commission or combined Planning and Zoning Commission of a Gateway member town. *(added 2018)*
- Lot*** A plot or parcel of land occupied or capable of being occupied, in conformity with applicable regulations, by one or more principle buildings and any accessory buildings or uses customarily incidental thereto.
- Marine Facility*** A dock, wharf, slip, basin, or similar landing facility for waterborne vessels and/or an open yard for the building, storing, repairing, servicing or refueling of such vessels, together with any accessory buildings or other structures necessary for the operation of the foregoing.
- Member Town(s)*** As designated by Chapter 477a, Section 25-102D of the Connecticut General Statutes, the member towns are Chester, Deep River, East Haddam, Essex, Haddam, Lyme, Old Lyme, and Old Saybrook, including the Borough of Fenwick. *(amended June, 2021)*
- Non-Commercial Cutting*** The cutting or removal of forest tree species on a lot for the purpose of preparing a site for the construction of a building or other structure and/or cutting for the customary maintenance and lot improvement. Sale of cordwood or other incidental forest products resulting from such maintenance and lot improvement will not constitute commercial cutting.
- Non-Commercial Cutting Plan*** A plan showing the existing mix of forest tree species, their approximate height, age and density; a description of the cutting or removal activities to be undertaken; and any other information that may be necessary and reasonably required.
- Refuse*** Waste, junk, garbage, debris, rubbish or trash, but not including sewage collected or disposed of in lawful facilities.
- Riparian Area*** The area upland of the Coastal Jurisdictional Line of the Connecticut River or any of its tributaries or associated wetlands located within the Conservation Zone. *(added June, 2021)*
- Riparian Vegetation Buffer*** The natural and traditional plant life indigenous to the Riparian Area as designated and mapped by the [Planning and] Zoning Commission, but not less than fifty (50') from the Coastal Jurisdiction Line, which plant life was legally existing as of the adoption of these Standards, and not to include grass, gardens, and ornamental shrubs and trees. *(added June, 2021)*

<i>Sign</i>	Any letter, word, model, pennant, insignia, trade flag, device or representation used as, or which is in the nature of, an advertisement, announcement, attraction or directive.
<i>Site Plan</i>	A plan which includes the description and location of all existing and/or proposed buildings, structures and uses on a lot; utility lines, vehicular drives and parking areas, access, lighting, drainage and waste disposal facilities; adjacent ownership, outstanding physical features, watercourses and wetlands; any proposed modification or alteration of the lot's natural features, including the disturbance of vegetation and soil cover; and such further information as may reasonably be required.
<i>Story</i>	That part of a building, other than a cellar, included between the surface of any floor and the floor above it, or if there is no floor above it, then the space between the floor and the ceiling next above it.
<i>Story Above Grade</i>	Any story having its finished floor surface entirely above grade, and any other story having its finished floor surface partially or entirely below grade where the finished surface of the floor next above is more than six (6) feet above grade for more than fifty (50) percent of the total perimeter of the building or more than twelve (12) feet at any point.
<i>Structure</i>	Anything constructed or which is located on, above or beneath the ground, except driveways, sidewalks, parking areas, curbing and fences which are less than six (6) feet high, including anything located on, above or beneath the water which is not primarily utilized or intended for navigation.
<i>Town</i>	A town and any municipal corporation located therein which has voted to be governed by the provisions of Section 6 to 9 of the Act in accordance with Section 4(b) of the Act. <i>(amended June, 2021)</i>
<i>Total Floor Area</i>	The sum of the gross area of all floors in a structure, measured from the exterior faces of exterior walls. Gross floor area includes any area which is capable of being used for human occupancy, including garage or attic space, whether finished or not, provided the area has a structural headroom of at least six (6) feet. A basement or first floor which is located entirely below ground surface will not be included in total floor area calculations. <i>(added 2004)</i>
<i>Vegetation</i>	The natural and traditional plant life of a region legally existing as of the adoption of these Standards, and not to include grass, gardens, and ornamental shrubs and trees. <i>(added 2018)</i>
<i>Viewshed Analysis</i>	A visual impact evaluation comprising, at a minimum, topographic maps and photographs showing the site, with such photographs taken from locations along the Connecticut River including upriver, downriver, and opposite the site. <i>(added June, 2021)</i>

Wetlands

Those areas identified and defined in Section 22a-32, Connecticut General Statutes, as amended and Section 22a-38, Connecticut General Statutes, as amended.

Section III - Standards

A. Land Coverage. No building will be constructed, reconstructed, enlarged, extended, moved or structurally altered in such a manner as to exceed the maximum percentage of total land coverage allowed for such buildings in the aggregate on any single lot as indicated in the following table:

<i>Type of District</i>	<i>Range of Minimum Lot Sizes</i>	<i>Maximum Percent of Land Coverage Permitted</i>
Residential	Up to 20,000 square feet	25%
	20,000 – 40,000 square feet	15%
	Above 40,000 square feet	10%
Commercial (including waterfront)	All sizes	40%
Industrial	All sizes	25%

(table added 2004, amendment proposed 2018)

Furthermore, referrals to the Gateway Commission will not be required for variance applications for lot coverage which is in excess of the maximum requirements of these regulations so long as the coverage being proposed is not in excess of the maximum Percent of Land Coverage Permitted above for the corresponding district and lot size. *(added 2018)*

B. Frontage. No standard recommended.

C. Setback. No building or other structure will be constructed, reconstructed, enlarged, extended, moved or structurally altered within one hundred (100) feet of the Coastal Jurisdiction Line, as defined in the Connecticut General Statutes, of the Connecticut River. At its discretion, upon determination of functional need, the [Planning and] Zoning Commission may issue a special permit to reduce the setback for structures that require direct access to the water as an operational necessity such as piers, docks, and boathouses. *(amended June, 2021)*

D. Design

1. Site Plans. No building permit will be issued in connection with any multi-family project or permitted non-residential use in any district unless a site plan will have been submitted to and approved by the town authority having jurisdiction.

2. ***Erosion and Sedimentation Control.*** An erosion and sedimentation control plan is to be submitted as part of the supporting documentation filed with a required site plan or as one of the required exhibits submitted for land subdivision approval.

Such a plan may be referred to the appropriate soil and water conservation district for its technical review and advisory opinion before approval of the project is granted by the town authority having jurisdiction and is to meet the following criteria:

- a. The development plan should be fitted to the topography and soils so as to create the least erosion potential.
 - b. Wherever feasible, natural vegetation should be retained and protected.
 - c. Only the smallest practical area of land should be exposed at any one time during development.
 - d. When land is exposed during development, the exposure should be kept to the shortest practical period of time.
 - e. Where necessary, temporary vegetation and/or mulching should be used to protect areas exposed during development.
 - f. Sediment basins (debris basins, desilting basins, or silt traps) should be installed and maintained to remove sediment from runoff waters and from land undergoing development.
 - g. Provisions should be made to effectively accommodate the increased runoff caused by changed soil and surface conditions during and after development.
 - h. The permanent final vegetation and structures should be installed as soon as practical in the development.
3. ***Signs.*** No sign will be constructed, reconstructed, enlarged, extended, moved or structurally altered in such a manner so as to move or rotate mechanically or be illuminated by a light source which visibly flashes, oscillates, or otherwise automatically changes in intensity or color, nor will any sign be permitted which calls the attention of the general public to any commercial activities, services or products not available on the premises where the sign is located.

E. Building Height. No building or other structure will be constructed, reconstructed, enlarged, extended, moved or structurally altered in such a manner as to exceed a height of thirty-five (35) feet. However, spires, cupolas, towers, flagpoles, and other similar architectural features occupying not more than ten (10) percent of the building footprint and is not designed or used for human occupancy may be constructed, reconstructed, enlarged, extended, moved or structurally altered to a reasonable and necessary height upon such permitting procedure specified by the regulations of [*town authority having jurisdiction*], provided that the architectural features will not have a significant visual impact on the River scene. *(added 2004, amended June, 2021)*

F. Vegetation Requirements *(subsection added 2004, retitled 2018)*

1. Required Riparian Vegetation Buffer

There will be no cutting of vegetation within the Riparian Vegetation Buffer as defined in these Regulations, except as provided in this section. *(amended June, 2021)*

- a. There will be no clear-cut openings, and a well distributed stand of trees and other vegetation, including existing ground cover, will be maintained. Existing vegetation less than three (3) feet in height and other ground cover will not be removed except to provide for a footpath or other permitted uses. Pruning of tree branches on the bottom third of trees is permitted. Fields which have reverted primarily to shrubs, trees or other woody vegetation will be regulated under the provisions of this section. Cleared openings legally in existence on the effective date of these regulations may be maintained but may not be enlarged.
- b. There will be no timber harvesting within the buffer area except to remove safety hazards. When removal of storm-damaged, diseased, unsafe, or dead tree results in the creation of cleared openings, these openings are to be replanted with native tree species unless existing new tree growth is present. Prior to cutting of diseased or damaged trees, a determination about the conditions of such trees will be made to the town's zoning enforcement officer by a public or consulting forester.
- c. In no event will an opening be cleared for development, including but not limited to surface regrading, stormwater drainage structures, construction of retention walls, construction of principal or accessory structures, driveway construction, sewage disposal areas, and lawns and gardens.

- d. A footpath not to exceed five (5) feet in width is permitted provided said footpath and associated clearing is not oriented in a direct downslope manner, a practice which may promote unwanted transport of eroded materials into the Connecticut River. *(amended June, 2021)*
- e. Stairs or similar structures may be allowed with a permit from the town's zoning enforcement officer to provide shoreline access in areas of steep slopes or unstable soils, provided that the structure is limited to a maximum of five (5) feet in width and does not extend waterward of the Coastal Jurisdiction Line of the Connecticut River or the upland edge of wetlands, and the applicant demonstrates that no reasonable access alternative exists on the property. *(amended June, 2021)*
- f. A Riparian Vegetation Buffer will not be required for areas within the Conservation Zone which have been designated as "Developed Areas" in accordance with the "Definitions" section of these regulations. In such Developed Areas, property owners are encouraged, where feasible, to maintain a vegetated area of trees and shrubs immediately adjacent to the water to avoid erosion and enhance the scenic quality of the River scene. *(amended 2018)*

(Note: The Gateway Commission urges each town to identify "developed areas" for exclusion from this requirement, and submit such areas to the Gateway Commission for approval. If towns wish the Gateway Commission to make recommendations as to the location of these areas, please request assistance.)

2. Timber Cutting

- a. *Non-Commercial Cutting.* A non-commercial cutting plan is to be submitted as part of the supporting documentation filed with a required site plan or as one of the required exhibits to be submitted for land subdivision approval.
- b. *Commercial Cutting.* Each town is to designate a regulatory authority to issue permits for the commercial cutting of timber, and no commercial cutting of timber is to occur in the absence of the issuance of such a permit. After submission of a commercial cutting plan to said regulatory authority, a permit will be granted if it is found to be consistent with the minimum standards set forth in *Appendix A*.

G. Burning of Undergrowth. The burning of undergrowth will be in accordance with those regulations of the Connecticut Department of Energy and Environmental Protection which are in effect from time to time to control and abate air pollution and in accordance with all other applicable provisions of law. *(amended 2018)*

H. Soil and Earth Materials.

1. **Removal.** The removal of soil and earth materials will be prohibited except for:
 - (1) valid non-conforming uses in existence as of May 14, 1974;
 - (2) foundation, trench and related site excavation performed after the issuance of a building permit and in conformance with all plans submitted in support thereof; and
 - (3) removal in connection with the landscaping and grading of land for a purpose for which a building permit is not required, provided that such removal will not exceed three hundred (300) cubic yards of material.

2. **Addition.** The deposition of soil and earth materials will be prohibited except for:
 - (1) valid non-conforming uses in existence as of May 14, 1974;
 - (2) foundation, trench and related site excavation or filling performed after the issuance of a building permit and in conformance with all plans submitted in support thereof; and
 - (3) deposition in connection with the landscaping and grading of land for a purpose for which a building permit is not required, provided that such deposition will not exceed three hundred (300) cubic yards of material.

(added June, 2021)

I. Dumping and Storing of Refuse. No dumping or storage of refuse will be permitted other than the temporary dumping or storage of small amounts of such material for brief periods pending final lawful disposition nor will any new public solid waste disposal facility be established or an existing facility be expanded in area.

J. Additional Requirements for Residential Structures over four thousand (4,000) Square Feet in Total Area

(subsection added 2004)

To assure that large scale residential structures and significant site modifications located within the Gateway Conservation Zone will not cause deterioration of the natural and traditional Connecticut River scene, a special permit is required for all construction, reconstruction, enlargement, or structural alterations of principal and accessory residential structures which results in one or more buildings or structures having a combined total floor area in excess of four thousand (4000) square feet of total floor area (all floors) except in accordance with the exceptions below.

(reworded 2018)

1. Exceptions from Special Permit Requirement

- a. No exceptions to review by Special Permit are permitted for development on parcels fronting the Connecticut River or only one lot removed from the Connecticut River, nor if significant clearing of natural vegetation is proposed.

- b. Site Plan in Lieu of Special Permit. A local authority may, by regulation, choose to allow a Site Plan application instead of a Special Permit review for residential structures over four thousand (4,000) square feet in total floor area under this Section if it can be demonstrated by a Viewshed Analysis that:

(amended 2018)

i. The proposed structure or structures will not be significantly visible from the Connecticut River due to an intervening land mass or existing permanent structure, OR

ii. The proposed addition to an existing structure is either substantially hidden from view from the Connecticut River by the existing structure or other structures either on- or off-site or the addition does not add significantly to the visual profile of the existing structure even when seen from an angle, OR

iii. The structure's distance from the Connecticut River combined with its elevation/lack of elevation below the ridge line causes it to be of insignificant visual impact.

2. Exemption from both Site Plan and Special Permit requirement. Except as required by Section 1(a) above, a special permit or site plan review will not be required for residential principal or accessory structures over four thousand (4,000) square feet in total floor area and separated from the Connecticut River by two lots under this Section if it can be demonstrated to the Zoning Enforcement Officer by the applicant that the following are applicable:

(subsection added 2018)

a. An area topographic map and photographs of the property from the Connecticut River showing there is intervening ground at an elevation at least thirty-five (35) feet above ground elevation of the proposed structure.

b. A plan view map of the property showing a proposed addition to an existing structure where the existing structure or structures on the same property block the view of the addition from the Connecticut River.

c. A plan view map of the property showing a proposed addition to an existing structure or a new structure blocked by a structure or structures located on adjacent properties blocking the view from the Connecticut River.

d. Large stands of trees located on an intervening property or properties which will obscure sight of the proposed development from view from the Connecticut River.

3. Submission. In addition to other town requirements for special permit applications, the applicant will provide site plans and building elevations prepared by an architect and/or landscape architect which show information on existing and proposed topography, building design and height measurements, proposed grading including cuts, fills and retaining walls, any required buffer area, proposed landscaping and plans for access to the waterfront, if applicable. *(added 2004)*

4. Review Criteria for Applications for Construction in the Gateway Conservation Zone. Any application for special permit/exception, site plan review, or administrative permit, as the case may be, shall be subject to the following standards: *(subsection added 2004, retitled 2018)*

- a. Proposed site development is to maintain the essential natural characteristics of the site, such as major landforms, natural vegetative and wildlife communities, hydrologic features, scenic qualities and open space that contributes to a sense of place.
- b. Structures are to be adapted to the existing terrain, rather than altering the earth form to create a platformed development site.
- c. Structures located above the crest of hillsides facing the Connecticut River are to be held back from the crest of the hill to maintain a clear sense of the hillside brow in its natural condition.
- d. Vertical architecture elements are not to be over emphasized in a manner which disrupts the natural silhouette of the hillside. Structures will be designed so that the slope angle of the roof pitch is generally at or below the angle of the natural hillside or manufactured slope.
- e. Building forms are to be scaled to the particular environmental setting to avoid excessively massive forms that fail to enhance the hillside character. Massing of structural elements such as large roof areas are to be broken up to approximate natural slopes.
- f. Roof lines are to relate to the slope and topography. Rooftop treatment is to be designed to avoid monotony of materials, forms and colors. Dark colored roof treatments, which reduce visual impact of the structure on the landscape, are preferred.
- g. Site design is to preserve the existing natural landscape where possible and include new landscaping which is compatible with existing natural vegetation, the scenic character of the area, and increases visual buffering between the building and the Connecticut River within the Gateway Conservation Zone.
- h. Development is to be located so as to minimize disturbance of sensitive areas. The smallest practical area of land should be exposed at any one-time during development, and the length of exposure should be kept to the shortest practical time. Disturbed areas are to be replanted with trees, shrubs and ground cover which are compatible with existing vegetation.
- i. Site grading is to avoid straight and unnatural slope faces. Cut and fill slopes are to have curved configurations to reflect as closely as possible the forms and shapes of surrounding topography. At intersections of manufactured and natural slopes, abrupt angular intersections are to be avoided and contours are to be curved to blend with the natural slope.
- j. Within the Gateway Conservation Zone, lighting of properties, including site lighting and the illumination of building facades and other architectural features, shall be the minimum necessary for health and safety. The purpose of this standard is to minimize the amount of artificial lighting emanating

from Conservation Zone properties in a way that may contribute to light pollution. *(criteria j. added 2023)*

5. Findings. A special permit/exception, site plan approval, or administrative approval, as the case may be, is not to be granted until the local authority has determined that all of the following conditions have been satisfied.

(subsection added 2004, amended 2018)

- a. Proposed structures and site work have been designed to fit the hillside rather than altering the hillside to fit the structure and site design.
- b. Disturbance to existing topographic forms is minimized and proposed grading and excavation will not result in soil erosion and silting of lower slopes.
- c. The proposed development retains or enhances the visual character of the site and the area by utilizing proper structural scale and character, varied architectural treatments, and appropriate plant material to buffer the mass of the building from the Connecticut River.
- d. The proposed design preserves or enhances significant natural features and maintains or restores the natural and traditional character of the Connecticut River scene.

APPENDIX A
Minimum Standards For
The Cutting of Timber

PREAMBLE

Harvesting of forest tree species is an integral part of forest management by which wood for human use is obtained and by which forests are established and tended. It is recognized that during harvest operation, there will be temporary change in the forest environment. It is the purpose of these guidelines to establish harvesting standards which will maintain the productivity of land for continuous forest crops, improve wildlife habitat, and minimize negative environmental impact.

PERMIT REQUIRED

It is unlawful for a person to harvest forest tree species without a permit, except as follows: (1) Land used for agricultural purposes and cultivation of crops other than forest products, (2) Land used or being developed for residential, recreational or other non-woodland commercial purposes, (3) Thinning and clearing in connection with public improvements, (4) Land used for access to abutting land, and (5) Cultured Christmas tree area.

The application for a permit shall consist of a plot plan showing the applicant's property and the abutting property owners, a cutting plan indicating the nature of the operation, and a certification of the cutting plan by a public or consulting forester indicating the plan's conformance with the minimum standards set forth herein.

STANDARDS

1. STREAM PROTECTION *

1. All possible care will be taken to protect continuously flowing streams and other water bodies from siltation and other damage during harvest operations. Partial cuttings, designed to create uneven-aged stands, will normally be used within 100 feet of these water courses. No more than fifty percent of the merchantable volume will be removed, taking care in the selection of leaf trees to minimize water temperature increases and visual impact.

* Streams are defined as perennial streams indicated on U.S.G.S Topographic maps, scale 1:24,000

2. Care should be taken not to fell trees into or across streams. Logging debris accidentally dropped into streams and ponds shall be promptly removed.
3. Harvesting equipment will not ordinarily be allowed in a stream and the channel should not be altered. All stream crossings will be as close to a right angle as possible.
4. After the completion of a harvest operation, banks at stream crossings will be graded and restored to approximate their original condition. Reseeding with an appropriate grass mixture may be required.
4. Any and all temporary structures in or across streams will be removed upon completion of operations.

II. LOGGING ROADS AND TRAILS

Careful consideration should be given to the planning and location of main haul or skid roads. All road locations, including alternate routes where advisable, will be planned prior to harvesting operations.

Outstanding considerations are:

1. Location so as to minimize construction or use impact on the land.
2. Grades in excess of 10%, or 0% gradients will be avoided except for short distances.
3. For each road, landing or skid trail, drainage control systems or stabilization shall be provided and maintained to control water flow,
4. Unless otherwise stipulated, all roads, main skid trails, landings and sawmill sites will be stabilized. Temporary culverts will be removed, water bars installed where necessary, ruts filled or graded out and gutters cleaned.
5. Where required for erosion control or where desirable from a wildlife standpoint, major skid roads, landings and/or sawmill sites will be limed, fertilized and seeded with an appropriate mixture of grass and legumes.

III. AESTHETIC CONSIDERATIONS

1. Border strips
 - a) Within approximately 100 feet of any automobile road, recreation trail or other recreation area,

or boundary line in proximity to any dwelling, harvesting of trees will be partial cuttings. Not more than 50% of the merchantable volume should be removed except in salvage operations, to open up scenic vistas or in forestry demonstration areas. In high-visibility areas, it will be desirable to create uneven-age stands to provide change and variety in scenery.

- b) Special attention will be given to leaving unique tree specimens, flowering shrubs and trees, or those species that have value as food producers or den sites for birds and wildlife.
- c) Brush Control: Undesirable sprout growth or brush should be controlled using approved herbicide treatments. Chemicals used in performing this practice must carry a Federal registration and be applied strictly in accordance with authorized uses, label directions, and Federal and State regulations.
- d) Special consideration shall be given to those Border strips in the following situations:
 - (1) Screen clear-cuts, shelterwood cuttings or other heavy cuts that would be deleterious to the landscape aesthetics.
 - (2) Screen yarding and loading areas. Debris removal or control is especially important in these locations.

2. Slash

- a) No slash will be left within 25 feet of any automobile road, established recreation trail, pond, lake or stream.
- b) Within the remaining width or a border strip, all slash will be chipped or lopped and scattered so that it does not exceed four feet in height.
- c) On all other harvest areas, slash, severely bent, or broken trees shall be dropped and/or lopped to a height not to exceed six feet.

IV. HARVEST METHODS

Because of the wide variation in forest types, stand size classes, stocking levels and timber volumes which exist in Connecticut woodlands, there are a variety of methods that can be used either singly or in combination in harvesting and re-forestation to meet the stated

purpose. These methods include clear-cutting with natural reproduction; direct seeding or planting; seed-tree cutting; selection cutting, including diameter limit harvesting, shelterwood cutting, and such other methods as shall be consistent with good forestry practice.

Although even-age management is an accepted silvi-cultural practice, particularly with hardwood species, its use should be practiced judiciously. A clear-cut area presents a severe visual impact to those unfamiliar with this harvest method. Therefore, clear-cutting will have the following restrictions:

1. Maximum of 5 acres in size.
2. Irregular in shape - avoid linear cutting bounds.
3. Soften edges by partial cutting within 50-100 feet of clear-cut boundaries.
4. Screen clear-cut areas with border strips along roads, trails or other areas of heavy public use.
5. Leave ridge tops uncut - these areas are the most visible.
6. In most cases, even-aged management may be accomplished through shelterwood cuttings rather than clear-cutting.

V. WILDLIFE CONSIDERATIONS

Virtually any cutting in forested areas will provide wildlife benefits. Emphasis will be placed on creating the maximum edge effect, and maintaining as much browse and cover as possible, consistent with over-all management goals.

VI. REGENERATION

Harvest procedures, properly applied and executed, should provide for adequate tree reproduction. However, there will be instances where regeneration may be deficient or result in undesirable tree species. In these cases, steps should be taken to provide the desired stocking.

VII. FIRE CONTROL CONSIDERATIONS

Access roads and fire lanes will be left clear of slash when a cutting job is completed. Designated roads will be graded so as to be passable by fire suppression equipment.

Where access road construction is included in a harvest operation, considerations should be given to construction of loading docks and fire waterholes at strategic locations.