Visual Impacts of Forestry

By Thomas Lundmark*

From all reports, the concern of the public for forest aesthetics has mounted in recent years. According to a report of the President's Advisory Panel on Timber and the Environment, "[t]here seems to be little question that most of the recent public concern about timber cutting practice can be traced to its visual impact."

Although the removal of trees may be considered the management practice with the greatest visual impact, other forest practices such as cultivation, thinning, road location, and slash removal also affect aesthetic values.² The effects of these practices on visual values are not always detrimental. For example, removal of trees can open scenic vistas to public view and road construction, often criticized as unsightly can make forests more accessible for people to enjoy nature.

Public and private foresters have become more sensitive to the visual effect of forest practices and have modified the practices to minimize aesthetic disturbances.³ On private lands, which account for seventy-two percent of the commercial timberland of the United States,⁴ many voluntary efforts have been made to

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- 1. REPORT OF THE PRESIDENT'S ADVISORY PANEL ON TIMBER AND THE ENVIRONMENT 29 (1973) [hereinafter Report].
- 2. Smith, Maintaining Timber Supply in Sound Environment, in Report, supra note 1, at 369, 388; M. Clawson, America Land and Its Uses 141 (1972). See generally Brookshife, Ives, & Schultz, The Valuation of Aesthetic Preferences, 3 J. of Econ. & Mgmt. 325 (1967); Little, Some Facets of the Amenity Concept, 1976 J. of Planning & Env't. L. 275 (1976); Boster, Measuring Public Responses to Vegetative Management, in 16th Annual Arizona Watershed Symposium Proceedings 38-43 (1972); G. C. Little, Effects of Clear-Cutting on Recreation and Tourism, Case of Blue Ribbon Comm'n on Timber Management in the National Forests 22 (1970) (published by the Sierra Club and Wilderness Society).
- 3. Report, supra note 1, at 29; Twiss, Conflicts in Forest Landscape Management—The Need for Forest Environmental Design, 67 J. of Forestry, 19, 20 (1969).
- 4. U.S. Bureau of the Census, Statistical Abstract of the United States: 1985 674 (1984).

protect forest scenery ⁵ Programs and laws encourage or require procedures to protect forest scenery both on private and public lands.⁶

Most of the aesthetic objections to timber harvesting can be avoided: logging operations can be screened from public view by buffer strips of uncut trees; special measures along roads and rec reation areas can soften the impact of forest management and re lieve monotony in the landscape; the size of areas cut can be kept to a minimum; dense stands can be thinned; logging debris can be disposed of carefully and larger and more attractive trees can be left uncut. These and other measures are often employed by for esters who have no legal obligation to employ them.

This article examines four general areas of law which concern forest aesthetics: regulation of forest practices on private land, regulation of publicly owned forests, incentives for private forest land owners, and the constitutional argument that aesthetically motivated restrictions of private forests constitute takings of private property

I. DIRECT REGULATION OF PRIVATE FORESTS

Except for one instance of direct federal regulation,⁸ private forest practices have been legally monitored, if at all, only by state

- 5. See, e.g., Recreational Use Policies of Large Forest Owners in Louisiana, 127 L.S.U. Forestry Notes 1 (Apr. 1979); Letter from John M. Bethea, Director of Florida' Division of Forestry, to author (Aug. 6, 1979); Letter from Harold L. Olinger, Assistant Chief of Virginia Division of Forestry, to author (Aug. 13, 1979); Letter from Henry H. Webster, Chief of Michigan's Forest Management Division, to author (Aug. 2, 1979).
- 6. E.g., South Carolina Forestry Ass'n, Voluntary Forest Practice Guidelines for South Carolina (1976); Maryland Forest Practices Comm., Maryland Forest Practices Guidelines (1975) (suggested); Texas Forestry Ass'n, Texas Voluntary Forest Practice Guidelines (1976); Empire State Forest Products Ass'n and New York State Dep't of Environmental Conservation, Timber Harvesting Guidelines for New York (undated); N.J. Chapter of Society of American Foresters and N.J. Forestry Ass'n, Timber Harvesting Guidelines for New Jersey (undated); Vt. Stat. Ann. tit. 10, § 2622 (1984).
- 7 E.g., R. W Douglass, Forest Recreation 298-300 (3rd ed. 1982); Rudolf, Silviculture for Recreation Area Management, 65 J. of Forestry 385 (1967).
- 8. The only direct federal regulation of private timberland management was the National Industry Recovery Act (NIRA) ch. 90, 48 Stat. 195 (1933). NIRA was declared unconstitutional as an unlawful delegation of congressional power to the executive in Schecter Poultry Corp. v. United States, 295 U.S. 495 (1935), but not before some regulations were promulgated. H. FALK, JR., TIMBER AND FOREST PRODUCTS LAW 248 (1958). For brief history of congressional attempts to regulate private forest practices, see Robinson, The Public Forester and Our Public Interests, 59 SIERRA CLUB BULL. 8 (1974).

and local government, and regional regulatory bodies.⁹ At least sixteen states have legislation regulating forest practices, usually concerning practices needed to minimize fire danger and to re establish a stand after cutting.¹⁰ While few of the statutes include the promotion of aesthetics among their goals, most do not ex plicitly require the consideration of forest amenity in private timberland management.¹¹

9. FOREST SERVICE, U.S.D.A., THE COOPERATIVE FOREST MANAGEMENT PROGRAM—PAST AND FUTURE, SUMMARY REPORT 14 (1975); Sizemore, Improving the Productivity of Nonindustrial Private Woodlands, in Report, supra note 1, at 234, 247

Law review articles on laws regulating forest practices on private land include: Note, State Laws Limiting Private Owner Right to Cut Timber, 1952 Wisc. L. Rev. 186 (1952); Lundmark, Regulation of Private Logging in California, 5 Ecology L.Q. 139 (1975); Ayer, Public Regulation of Private Forestry: A Survey and Proposal, 10 Harv. J. Legis. 407 (1963); Comment, Trees, Earth, Water and Ecological Upheaval: Logging Practices and Watershed Protection in California, 54 Calif. L. Rev. 1117 (1966); Cubbage & Ellefson, State Forest Practice Laws: A Major Policy Force Unique to the Natural Resources Community, 13 Nat. Resources Law. 421 (1980); Note, Forestland Preservation, 5 Harv. Envil. L. Rev (1981); Comment, Protection of Recreation and Scenic Beauty Under the Washington Forest Practices Act, 53 Wash. L. Rev 443 (1978); Note, The Obligation to Reforest Private Land Under the Washington Forest Practices Act, 56 Wash. L. Rev. 717 (1981).

10. Sizemore, supra note 9, at 247 The enactments are the Alaska Forest Resources and Practices Act, Alaska Stat. § 41.17010 (1984); California Z'Berg-Nejedly Forest Practice Act of 1973, Cal. Pub. Res. Code § 4511 (West 1984); Florida Seed Tree Law, Fla. Stat. Ann. § 591.27 (West 1962); Idaho Forest Practices Act, Idaho Code § 38-1301 (1977); Louisiana Turpentine Seed Tree Law, La. Rev Stat. Ann. § 56.1493 (West 1952); Md. Ann. Code art. 5, § 101 (1983); Massachusetts Forest Cutting Practices Act, Mass. Gen. Laws Ann. ch. 1322, § 40 (West Supp. 1986); Mississippi Forest Harvesting Law, Miss. Code Ann. § 49-19-53 (1972) (mentioning scenic beauty); Missouri State Forestry Law, Mo. Rev. Stat. § 254.010 (1979); Nevada Forest Practices and Reforestation Act of 1955, Nev. Rev Stat. § 528.010 (1986); N.H. Rev. Stat. Ann. § 221 (1985); N.M. Stat. Ann. § 60-1-1 (1981); New York Forest Practices Act, 1946 N.Y. Laws § 60-d; Oregon Forest Practices Act, Or. Rev. Stat. § 527.610 (1983); Vt. Stat. Ann. tit. 10, § 2621 (1984); Va. Code Ann. §§ 10-74.1, 10-90.30 (1985) (mentioning aesthetics); Washington Forest Practices Act, Wash. Rev. Code § 76.90.010 (1983) (mentioning scenic beauty). See generally Cubbage & Siegel, The Law Regulating Private Forest Practices, 83 J. of Forestry 538 (1985).

11. Forestry officials from many states report that no such restrictions exist. E.g., Letter from Pierre H. Authier, Forester with Alaska Division of Forest, Land and Water Management, to author (Aug. 6, 1979); Letter from Roger E. Bergmeier, Supervisor with Montana Division of Forestry, to author (Oct. 1, 1979); Letter from John M. Bethea, Director of Florida Division of Forestry, to author (Aug. 6, 1979); Letter from Thomas B. Borden, Colorado State Forester, to author (July 30, 1979); Letter from John F Datena, Indiana State Forester, to author (Aug. 9, 1979); Letter from William A. Farris, Assistant Iowa State Forester, to author (Aug. 24, 1979); Letter from Mitchell D. Ferrill, Nebraska State Forester, to author (Aug. 21, 1979); Letter from O. Lynn Frank, Chief of Pennsylvania Timber Management Section, to author (Sept. 28, 1979); Letter from W F Gabel, Delaware State Forester, to author (July 30, 1979); Letter from Billy T Gaddis, Mississispip State Forester, to author (Sept. 21, 1979); Letter from Raymond R. Gallegos, New Mexico State Forester, to author (Sept. 20, 1979); Letter from Ernest J. Gebhart, Chief of Ohio Division of Forestry, to author (Aug. 14, 1979); Letter from Elmore C. Grimm, Director of

The restrictions which promote aesthetics fall generally into six categories: slash and waste disposal; riparian buffer zones; scenic road buffer zones; location of logging roads; silvicultural (logging) systems; tree species choice; and conversion of timberland to non-timber uses.

A. Slash and Waste Disposal

The most common aesthetic regulation of private forestry addresses the appearance of the site after logging, especially the treatment of limbs, tops and other debris, called "slash." Special procedures must be taken to deal with unsightly slash visible from areas frequented by the public. These restrictions can serve other important goals as well, such as minimization of fire danger and avoidance of water pollution.

According to various state laws, slash must be removed from the vicinity of roads and water courses, and accumulations of slash may not exceed designated heights. A regulation in Oregon directs that "[w]here major scenic attractions, highways, recreation areas, or other high use areas are located within or traverse forestland, special consideration should be given to scenic values by prompt cleanup and regeneration." In Maine, no slash may be left within fifty feet of certain lakes or streams, and slash larger than three inches in diameter must not be piled more than four feet high. 13

Kentucky' Division of Forestry, to author (Aug. 7 1979); Letter from John E. Hammond, Assistant Chief of Georgia Forestry Comm n, to author (July 31, 1979); Letter from David C. Holt, Rhode Island Forestry Supervisor, to author (Aug. 17 1979); Letter from Stanley T House, Staff Forester with Connecticut' Forestry Unit, to author (Aug. 16, 1979); Letter from Asher W Kelly, Jr., State Forester of West Virginia, to author (Aug. 3, 1979); Letter from Paul R. Kramer, Director of the Texas Forest Service, to author (Aug. 1, 1979); Letter from B.E. Lundell, Assistant State Forester of Wyoming, to author (Aug. 1, 1979); Letter from T.J. Lynch, Technical Services Chief of the Alabama Forestry Comm'n, to author (Aug. 9, 1979); Letter from Tunis J. Lyon, Deputy Director of Maryland' Forest Service, to author (Aug. 2, 1979); Letter from Daniel F McInnis, Staff Forester with the North Carolina Division of Forest Resources, to author (July 31, 1979).

- 12. STATE OF OREGON, DEP'T OF FORESTRY, FIELD GUIDE TO OREGON FOREST PRACTICE RULES §§ 629-24-448(1), 629-24-541(1)(h), 629-24-648(1) (1978). However, the policy statement in the Oregon Forest Practices Act does not mention recreation or aesthetics. See OR. Rev. Stat. § 527.630 (1983). See generally Stacer, The Oregon Forest Conservation Act, 2 Willamette L.J. 268 (1982). See also Idaho State Bd. of Land Comm'rs, Rules and Regulations § 813.08(1) (Jan. 24, 1978); Idaho Code § 38-1302 (1977).
- 13. Me. Dep't of Conservation, Land Use Regulation Comm'n, Land Use Districts and Standards, ch. X, § 10.17,A,5,b(4) (1978). In Nevada, slash within 100 feet of public highway must be lopped and scattered. Nev. Rev. Stat. § 528.070 (1979).

More detailed provisions exist in New Hampshire and Califor nia. In order to "promote healthful surroundings, recreational opportunities, and scenic values," slash in New Hampshire must not be left within sixty-seven feet of a railroad right-of-way within fifty feet of any "great pond," navigable river or public highway or within twenty-five feet of any river stream, or brook which will float a canoe at normal water level. In major portions of California, slash must be chipped, burned, burned or removed if within 100 feet of public trails or if within 200 feet of inhabited structures, roads accessible to the public, and public picnic or camping areas. The California regulation further requires that slash be scattered so that no limb or stem larger than four inches in diameter would be covered with slash, and that slash build-up not reach more than two feet from the ground. In the california regulation further requires that slash build-up not reach more than two feet from the ground.

The most severe regulation regarding slash on private property may be that of the Tahoe Planning Agency In a forest zone, slash must be lopped into "handleable" lengths and scattered so that it does not reach more than twenty inches from the ground, and in urban and recreational zones, slash must be burned, chipped, or hauled away ¹⁶

B. Riparian Buffer

Foresters sometimes exclude strips of forest from logging. These "buffers" around streams and lakes have the effect of reducing erosion, protecting water quality and preserving shoreline aesthetics.¹⁷ To these ends, a number of states require that foresters leave some riparian vegetation intact.

A unique situation in Minnesota results from complementary federal and state enactments to protect the scenic beauty of the northern part of the state. The Federal Shipstead-Nolan Law en-

^{14.} N.H. REV. STAT. ANN. §§ 224:44-b, 224:44-c (1977 & Supp. 1985) (slash disposed of in this manner must not extend over four feet in height).

^{15.} CAL. ADMIN. CODE tit. 14, §§ 957.4(b), 954.6(a) (6-23-84). The restrictions enumerated in the text apply in the high use subdistrict of the southern forest district which is defined to include the following counties: Ventura, Santa Barbara, Los Angeles, San Bernardino, Orange, Riverside, Imperial, San Diego, Monterey, San Luis Obispo, and those portions of Placer and El Dorado lying within the authority of the Tahoe Regional Planning Agency. *Id.* § 909.1 (6-30-84).

^{16.} Tahoe Regional Planning Agency Timber Harvesting Ordinance § 9.00(1) (1973). California expressly allows stricter regulations to be imposed by the Tahoe Regional Planning Agency. Cal. Pub. Res. Code § 4516 (West 1984).

¹⁷ See generally R. B. LITTON, JR., R. J. TETLOW & J. SORENSON, WATER AND LANDSCAPE: AN AESTHETIC OVERVIEW OF THE ROLE OF WATER IN THE LANDSCAPE (1971).

acted in 1930, withdrew federal land from sale and restricted its use. That law states:

The principle of conserving the natural beauty of shorelines for recreational use shall apply to all Federal lands which border upon any boundary lake or stream contiguous to this area, or any other lake or stream within this area which is now or eventually to be in general use for boat or canoe travel, and that for the purpose of carrying out this principle logging of all such shores to a depth of four hundred feet from the natural water line is [generally] forbidden.¹⁸

The state Minnesota Shipstead-Nolan Act, passed in 1933, for bids the construction of dams across any public water within or bordering on specific areas and, with certain exceptions, forbids alteration of the natural water level or volume of flow of those waters.¹⁹

Motivated in part to preserve shoreland aesthetics, a state-wide standard in Minnesota restricts removal of timber from 35-foot to 100-foot buffer strips along the shores of lakes and streams. ²⁰ In these strips, twenty-five percent of the length of the strip may be clearcut, i.e. all trees removed, provided sufficient cover is left in the remaining seventy-five percent to screen cars, dwellings, and other structures (except boat houses, piers, docks, and marinas) from view from the lake. Similar provisions are in force in a number of other states with varying widths and leave requirements. ²¹

In a few jurisdictions, all logging adjacent to water bodies is generally forbidden. In Nevada, for example, felling trees within

^{18. 16} U.S.C. § 577a (1982).

^{19.} MINN. STAT. ANN. § 110.13 (West 1977). Much of the area covered by the Shipstead-Nolan Law is in the Boundary Waters Canoe Area. Letter from Ray Hitchcock, Director of Minnesota Division of Forestry, to author (Oct. 4, 1979).

^{20.} MINN. REG. CONS. 77 § 4.31 (1970).

^{21.} In the unorganized and deorganized areas of Maine, harvesting within 250 feet of great ponds, tidal waters, and certain streams—shall be conducted in such manner that well-distributed stand of trees is retained so as to maintain the aesthetic and recreational value—so as not to create any single opening of greater than 7,500 square feet in the forest canopy. Me. Rev. Stat. Ann. tit. 12, § 681 (1977); see Maine Dep't of Conservation, Land Use Districts and Standards ch. X, §§ 10.03, 10.16, 10.17 (1978). In New Hampshire, at least fifty percent of the basal area of trees must ordinarily be left within 150 feet of any great pond or navigable river and within fifty feet of any stream which normally flows throughout the year. N.H. Rev. Stat. Ann. § 224:44-a (Supp. 1985). In California the width of the stream and lake protection zone ranges from 50 feet to 150 feet depending on the district and erosion potential. E.g., Cal. Admin. Code tit. 14, § 932 (northern district) (9-1-84).

a 200-foot riparian buffer zone is permitted only where the danger of leaving the trees outweighs the expected benefits; and, in any event, a variance must first be obtained.²² Regulations at Lake Tahoe allow only sanitation cutting (removal of trees in poor condition) within riparian buffer zones.²³

Logging restrictions may also result from state scenic river acts. Under the Massachusetts Scenic Rivers Act, alterations in the shoreline may be prohibited.²⁴ The Virginia Scenic Rivers Act also allows the imposition of restrictions in specific areas, but none have yet been imposed on private forestry ²⁵

The purpose of the Chesapeake Bay Critical Area Protection Program in Maryland is to minimize damage to water quality and natural habitats.²⁶ Under that law local jurisdictions must implement programs which require that all harvesting of timber in the Chesapeake Bay Critical Area be in accordance with plans approved by the district forestry board.²⁷ Regulations prohibit clearcutting of most species in 50-foot buffer strips²⁸ along the bay and its tributaries "to the head of tide as indicated on the state wetlands maps."²⁹ The impact of these regulations on for estry has been minor ³⁰

C. Scenic Road Buffer

Another method used to lessen the visual impact of logging is the scenic road buffer Favored by many commentators,³¹ buffers

- 22. NEV REV. STAT. § 528.053 (1985). The authority in charge of granting these variances is not explicitly directed to consider the recreational and aesthetic impact of removing the trees. See id. § 528.048.
- 23. Tahoe Regional Planning Agency Timber Harvesting Ordinance § 6.00 (1973) (within 100 feet of waters). But variances from this prohibition may be granted. *Id.* § 11.00. *See* Cal. Admin. Code tit. 14, §§ 916.3, 936.3, 956.3 (7-2-83) (allowing only sanitation-salvage cutting in future harvests within stream and lake protection zones pending re-establishment of the forest canopy).
 - 24. Mass. Gen. Laws Ann. ch. 40, § 15C (West Supp. 1985).
- 25. See VA. Code Ann. § 10-167 (1985); telephone interview with Deborah Mills, Forest Rescue Planner, Virginia Department of Forestry (Oct. 7 1986).
- 26. Md. Nat. Res. Code Ann. § 8-1801(b)(1) (1983). Aesthetics was omitted from an earlier draft of the legislation. Telephone interview with Lee R. Epstein, Assistant Attorney General, Maryland Department of Resources (Oct. 7 1986).
 - 27 Md. Nat. Res. Code Ann. § 8-1808(c)(10) (1983).
 - 28. Md. Regs. Code tit. 14, § 14.15.09.01 C(5)(a) (1986).
 - 29. Md. Nat. Res. Code Ann. § 8-1807(a) (1983).
- 30. Telephone interview with James Burtis, Jr., Assistant Director, Forest, Park & Wildlife Service, Maryland Department of Natural Resources (Oct. 7 1986).
- 31. E.g., R. W DOUGLASS, supra note 7 at 298; Smith, supra note 2, at 388; INSTITUTE OF ECOLOGY, U.C. DAVIS, PUBLIC POLICY FOR CALIFORNIA FOREST LANDS 16, 34-5 (1972); Ayer,

are intended to screen unsightly forest practices from public view. In New Hampshire, no more than fifty percent of the trees, according to basal area, within 150 feet of any public highway may be cut or otherwise felled, leaving uncut a well-distributed stand of healthy growing trees. The Scenic Highways and Virginia Byways Act allows the imposition of scenic restrictions on private forestry 33

Perhaps the most extensive scenic buffers requirement is in force in the densely populated Marin County Recreation Corridor in California. If timber operations will be visible from any public road, public trail, or residence within one-quarter mile, the following requirements apply to the maximum extent feasible: (1) all trees to be cut must be selected to minimize adverse visual effects and must be marked; (2) areas of vegetation and soil disturbance related to tractor roads, truck roads, and cut slopes must be as small as possible; (3) such areas must be revegetated to the greatest extent feasible to reduce visual effects; and (4) trees and other vegetation must be left if necessary to screen exposed soil from view ³⁴

D Location of Roads

Roads can be routed in such a way as to minimize impairment of the natural landscape and to reduce erosion.³⁵ In consonance with these goals, a number of states direct that roads on private forestlands be constructed to follow natural contours and thus avoid unnecessary alterations in natural features.³⁶

supra note 9, at 425; see generally D. APPLEYARD, K. LYNCH & J. MEYER, THE VIEW FROM THE ROAD (1974). Some suspect the buffer strips represent attempts to hide mismanagement. Twiss, supra note 3, at 21.

32. N.H. REV. STAT. ANN. § 224:44-a (Supp. 1983). "Basal area" refers to the cross-sectional areas of tree stems measured at height of four-and-one-half feet.

Maine formerly imposed similar standard. Letter from Richard E. Morse, Staff Forester with Maine's Bureau of Forestry, to author (July 31, 1979); see ME. REV. STAT. ANN. tit. 12, § 519 (1973), repealed by 1979 ME. ACTS ch. 556.

- 33. Telephone interview with Deborah Mills, Forest Resource Planner, Virginia Department of Forestry (Oct. 7 1986); see VA. CODE ANN. §§ 33.1-62 to 33.1-66 (1984).
 - 34. Cal. Admin. Code tit. 14, § 927.13 (6-16-84).
 - 35. Twiss, supra note 3, at 21; Lundmark, supra note 9, at 163-64.
- 36. CAL. ADMIN. CODE tit. 14, §§ 923 (9-10-83), 943 (8-6-83), 963 (9-10-83); STATE OF OREGON, DEP'T OF FORESTRY, FIELD GUIDE TO OREGON'S FOREST PRACTICE RULES §§ 629-24-421(1), 629-24-521(1), 629-24-621(1) (1978); WASHINGTON FOREST PRACTICE BOARD, WASH. FOREST PRACTICE RULES AND REGULATIONS § 222-24-010(2) (1976). The requirement in Washington is apparently not motivated by aesthetic concerns. See letter from

F. Silvicultural Method

There are four common silvicultural or harvesting methods: clearcutting, seed-tree, shelterwood, and selection.³⁷ Aesthetically the shelterwood system is said to be preferable to clearcutting, and the selection system is said to be most appropriate for areas of high recreational and scenic value.³⁸ In fact, adherents of the selection system maintain that little if any adverse aesthetic impact results from the judicious use of the selection system.³⁹

Of particular concern to the public is the practice of clearcutting, which, according to a President's Advisory Panel, has a generally adverse aesthetic effect that may be serious enough in areas to require minimization or elimination of the practice.⁴⁰ A few regulations limit the size of the clearcuts, in part to reduce any adverse visual impact.⁴¹

Another technique which reduces the adverse aesthetic effect of clearcutting is shaping the edges of clearcut areas to blend with natural contours.⁴² Regulations in California direct that clearcut areas shall, when practical, be irregularly shaped and variable in

- L.V Morton, Supervisor of Div n of Forest Land Management of Washington' Dep't of Natural Resources, to author (Aug. 10, 1979).
- 37 Clearcuting entails severing all trees and results in even-aged stands. If clearcuts are small, they are sometimes called block, patch or group cuts. Seed-tree cutting also results in even-aged stands. It differs from clearcutting in that some trees are left to reseed the cutover areas. The seed trees are often removed when reseeding has been accomplished. In shelterwood cutting, older and unwanted trees are removed in series of harvests designed to provide sufficient light for natural regeneration. Uneven-aged stands result from selection cutting where individual trees are removed as they mature. Lundmark, supra note 9, at 168-69. For technical definitions see Society of American Foresters, Forestry Terminology (3d ed. 1958).
- 38. Wegner, Multiple-Use Silviculture in the United States, in International Union of Forestry Research Organization, XIV IUFRO-Kongress, vol. IV at 619, 624, 626 (1967); Smith, supra note 2, at 388.
- 39. "The selection system practiced on the Continent leaves the appearance of the forest virtually unchanged. Garfitt, Irregular Silviculture in the Service of Amenty, 71 QUARTERLY J. OF FORESTRY 82 (1977). One study showed that people preferred photographs of eastern softwood forests which had been logged by the selection method ten to twelve years earlier to uncut stands. Uncut and selection-cut hardwood stands were judged equally. Rutherford & Shafer, Selection Cuts Increased Natural Beauty in Two Adirondack Forest Stands, 67 J. OF FORESTRY 415 (1969).
 - 40. REPORT, supra note 1, at 31-2.
- 41. E.g., CAL. ADMIN. CODE tit. 14, §§ 921.3(c)(2) (10 acres) (4-8-78), 933.5 (20-80 acres), 953.5 (40 acres), 913.5 (40-80 acres) (5-20-78).
- 42. Smith, supra note 2, at 409. "Edges—where dissimilar materials come together—are especially vulnerable to disruptions. Litton, Visual Vulnerability of Forest Landscapes, 72 J. of Forestry 392, 393 (1974).

size so as to blend with natural patterns and features of the landscape.⁴³ California s Coastal Zone directive states:

Straight boundaries and quadrilateral appearance should be avoided in defining and logging the area to be clearcut. The outline of the clearcut area should, where possible, be "sculptured" in an aesthetically pleasing manner in accordance with natural pattern and features of the topography 44

A more extreme means to avoid adverse aesthetic effects of clearcutting is to prohibit the practice altogether as has been done in Nevada and portions of California.⁴⁵ In the counties around San Francisco and Los Angeles, for example, logging must always leave uncut and undamaged a specified number of trees.

Larger older trees can sometimes enhance aesthetic value.⁴⁶ It appears that no state directly dictates (rather than offering tax incentives) a mandatory minimum period of rotation or cutting cycles for private commercial timber to advance aesthetics. There are, however local municipal regulations which make it unlawful for anyone to destroy injure, or remove certain trees without first obtaining a permit, which may require dedication of tree-preser vation easements.⁴⁷

^{43.} Cal. Admin. Code tit. 14, §§ 913.1 (1-15-83), 933.1 (1-15-84), 953.1 (9-1-84).

^{44.} Id. § 921.3(c)(4) (9-10-83). "Every reasonable effort shall be made to use silvicultural methods other than clearcutting to protect the natural and scenic values in [these areas]. Id. at § 921.3(c).

^{45.} See Nev. Rev. Stat. § 528.050 (1973); Cal. Admin. Code tit. 14, §§ 921.3(c) (9-10-83) (Coastal Commission special treatment areas). Id. §§ 913.8 (1-15-83), 953.5 (1-26-85). While patchcutting is allowed in the lodgepole pine and fir forests of Lake Tahoe—general forest classification, no patch can be larger than three acres or wider than twice the height of the tallest tree removed. In recreational pine forests, shelterwood logging is allowed but selection cutting is prohibited. Tahoe Regional Planning Agency Timber Harvesting Ordinance §§ 5.20, 3.00 (1973).

^{46.} Wegner, supra note 38, at 626; Hartman, The Harvesting Decision When Standing Forest Has Value, 14 Econ. Inquiry 52-8 (1976); R. W Douglass, supra note 7 at 203; Brown, Promising Research Topics Regarding Non-Timber Products from Forest Related Lands, in Research In Forest Economics and Policy 200, 203 (M. Clawson ed. 1977).

⁴⁷ E.g., Snyder, Orlando Aging Oaks, 91 Am. Forests 13 (1985); Herberger, Timber Cutting & the Law, 92 Am. Forests 14 (March 1986). See Sheerr v. Township of Evesham, 184 N.J. Super. 11, 445 A.2d 46 (1982); Johnson v. Rome Ry. & Light Co., 4 Ga. App. 742, 62 S.E. 491 (1908); Chesapeake & Potomac Tel. Co. v. Goldsborough, 125 Md. 666, 94 A. 322 (1915).

F Choice of Species

The species unit of a forest plays a role in forest amenity ⁴⁸ A law in Maryland seeks to maintain and reproduce the pine forest resource of the state, declared to be valuable for aesthetic and other benefits, ⁴⁹ by requiring pine forests to be reforested by cone-bearing trees. ⁵⁰ A regulation in the high use subdistrict of California's southern forest district provides: "The *composition* and distribution of the leave stand shall be maintained as nearly as practical, giving consideration to the aesthetics of the areas." ⁵¹

G. Conversion

By converting timberland to some other use, the scenic contribution of the forest to the landscape will be lost. One regulatory scheme which considers the aesthetic impact of conversions of forestland is the California Forest Taxation Reform Act, which provides for reduced taxation of land classified as timberland preserve.⁵² Once classified as timberland preserve, the land is restricted for a period of ten years to the growing and harvesting of timber and to compatible uses, including hunting and fishing.⁵³

- 48. Litton, Esthetic Resources of the Lodgepole Pine Forests, 1 Management of Lodgepole Pine Ecosystems, 285, 290, 294 (1975).
 - 49. Md. Nat. Res. Code Ann. § 5-502 (1983).
 - 50. Id. §§ 5-501 to 5-509.
 - 51. CAL. ADMIN. CODE tit. 14, § 253.5 (1-26-85) (emphasis added).
- 52. CAL. GOV'T CODE §§ 51150-55 (West 1983); Unkel & Cromwell, California Timber Yield Tax, 6 Ecology L.Q. 831, 848-54 (1978). The property tax is assessed solely on the value of the land for timber production. See CAL. Rev. & Tax. Code § 434.5 (West Supp. 1985); CAL. Const. art. XIII, § 3(j) & art. XIIIA, § 1 (West Supp. 1985); CAL. Gov't Code § 51110 (West 1983). This law therefore displaces the reassessment obtained by owners who contract to manage their timberlands as agricultural preserves. See Cal. Land Conservation Act of 1965 (Williamson Act), CAL. Gov't Code §§ 51200-295 (West 1983).

Analogous special assessment exists in Florida for so-called outdoor recreational or park lands. Fla. Stat. § 193.501(3) (Supp. 1985) (land taxed at actual use, not highest and best use). The classification encompasses boating, golfing, camping, swimming, horseback riding, and historical, archeological, scenic, or scientific sites. *Id.* § 193.501(6)(f). Preferential tax treatment is accorded to owners who either covenant to devote their land to these purposes for minimum of ten years or who convey to the government the development right, *i.e.*, the right to change the use of the property to other than outdoor recreation or park purposes. *Id.* §§ 123.501(1) and (6)(e). While the development right may be conveyed to the record owner, reconveyance follows only after public hearing and determination by the governmental entity that reconveyance would not adversely affect the public interest. *Id.* § 123.501(5).

53. CAL. GOV'T CODE §§ 51100, 51133-34 (West 1983). The uneconomic character of the existing use of the land is not sufficient reason to grant request for immediate reclassification. *Id.* § 51134.

If during the ten-year period the owner applies to reclassify the land to a use other than growing timber the California Department of Forestry which gives final approval, must consider the anticipated impact of the reclassification on aesthetics.⁵⁴

II. Public Forests

Recreational and aesthetic directives are, from a legislative standpoint, the exception for private forestland; they are, however the rule for most publicly owned forests.

A. National Forests

Among the statutes which govern the management of the national forests, many address aesthetic concerns. The Secretary of Agriculture is directed to establish standards so that stands of trees will generally have reached a certain age prior to harvest.55 The Secretary of Agriculture must adopt regulations which provide for diversity of plant and animal communities, and which preserve the diversity of tree species similar to that existing in the region. Regulation of cutting methods designed to regenerate even-aged stands of timber (e.g., clearcutting, seed-tree, shelterwood) must provide that the cuts be carried out in a manner consistent with aesthetic resources. These methods may be used in the national forests only where the potential aesthetic impacts have been assessed. Clearcutting may be used only if it is determined by the forest service to be the optimum method. In addition, the forest service may ensure that cut blocks, patches, and strips are shaped and blended with the natural terrain.⁵⁶ Fur thermore, any road constructed in the forest service system in connection with a timber contract, permit, or lease must ordinarily be designed to re-establish vegetative cover within ten vears.57

^{54.} CAL. ADMIN. CODE tit. 14, § 1109.2(b) (10-1-83). Another provision in California generally limits conversions of coastal commercial timberlands (those inside the coastal zone) to facilities that are necessary for the processing of timber products. *Id.* § 1108 (9-1-84).

^{55. 16} U.S.C. § 1604(m)(1) (1982). The age that the trees will have to reach prior to harvest is defined as "the culmination of mean annual increment of growth. Exceptions can be made "after consideration has been given to the multiple uses of the forest including, but not limited to, recreation.

1d. § 1604(m)(2).

^{56.} Id. § 1604(g)(3).

^{57 16} U.S.C. § 1608(b) (1982). For other legislation relied on by the forest service for authority to manage visual resources, see the Forest and Rangeland Renewable Resources

To achieve aesthetic goals, the forest service uses "landscape planning," which it defines as "the art and science of planning and administering the use of forest lands in such ways that the visual effects maintain or upgrade man's psychological welfare." A "visual management system" is employed, designed to produce visual quality objectives for incorporation into its land management planning. One aspect of the visual management system is the "visual absorption capability" which is an estimate of the relative ability of a landscape to absorb the visual effects of forest management. In conducting a visual management study the visual absorption capability for specific land areas are mapped or otherwise recorded for inclusion in the land management planning. 59

On approval of the landscape planning, guidelines may be adopted which can include the following: consultation with a landscape architect; limitation of patch or seed-tree cuts to twenty-five acres; requirement that cutting units not dominate natural patterns of line, form, color or texture; removal of all slash visible from certain roads; requirement that slash be scattered; directive that stump height be held to a minimum and that saw cuts slope away from roads and trails; requirement that rubber-tired yarders be used where feasible; location of landings out of sight of roads and trails; exclusion of overhead utility lines; requirement that transmission towers and buildings be painted with naturally harmonious colors; directive that all ground disturbances be returned to natural contour prescription of sanitation and hazard-tree cutting only and prohibition against gravel operations.⁶⁰

Act of 1978, 16 U.S.C. §§ 1641-47 (1982); the National Forest Management Act of 1976, Pub. L. No. 94-588, enacting, amending and repealing numerous provisions in title 16; and the National Environmental Policy Act of 1969, No. 91-190, 83 Stat. 552 (1970).

^{58.} U.S. Dep't of Agriculture, Forest Service Manual 2383 (1983).

^{59.} Id.

^{60.} Id. at 2328. A method used to determine visual quality objectives is found in 2 U.S. DEP'T OF AGRICULTURE, VISUAL MANAGEMENT SYSTEM, AG. HANDBOOK, No. 462, ch. 1 (1974).

On landscape planning in general, see Forest Service, U.S.D.A., Research Paper No. PSW-49, Forest Landscape Description and Inventories (1968); Litton, Aesthetic Dimensions of the Landscape, in Natural Environments (J. Krutilla ed. 1972).

B. State Forests

State and local forests are commonly managed with aesthetics as an important goal. Guidelines exist to help ensure that forests are managed aesthetically ⁶¹ Scenic buffers are often employed to screen unsightly practices. The harvesting policy for Rhode Island's state forests, for example, requires that buffer strips of se lectively managed forest be retained around areas regularly used for recreation. ⁶²

A comprehensive regulation exists for the two million acres of the Pennsylvania State Forest. Under Pennsylvania's Forest Re source Plan, uneven-aged management is applied to forests in which aesthetics and recreation are primary values, including an area 330-feet wide on either side of designated roads. "Aesthetics is the overriding consideration for buffer zones and other areas zoned for uneven-aged management. The silviculture applied to these areas will be aimed at perpetuating a high forest of aesthetically pleasing trees." Detailed directions on shaping clearcuts to fit the landscape are also in force. 65

In the state forests of Connecticut, clearcutting is to be "practiced judiciously" and only used when the shelterwood method is inappropriate.⁶⁶ Furthermore, the size of an area cut must not exceed ten acres, irregular cutting lines must be followed, edges

- 61. E.g., The Alaska Forest Resources Act provides, for municipal and state land that, "where economically practicable, allowance may be made for scenic quality in or adjacent to areas of substantial importance to the tourism and recreation industry. Alaska Stat. § 41.17.060(c)(6) (1983). See also Letter from Ray Hitchcock, Director of Minnesota's Div of Forestry, to author (Oct. 4, 1979); Letter from Henry H. Webster, Chief of Michigan Forest Management Div n, to author (Aug. 2, 1979) (guidelines being developed); Letter from David E. Pesonen, Director of California's Dep't of Forestry, to author (Aug. 6, 1979) (essentially same as private land); Letter from Frank F Guidotti, Assistant Director of New Jersey State Park Services, to author (Sept. 12, 1979); Letter from John M. Bethea, Director of the Florida Dep't of Agricultural and Consumer Services, to author (Aug. 6, 1979) (regulations being drafted which may contain aesthetic provisions for state and municipal land only).
- 62. Special requirements for slash disposal in these strips also exist, as well as provisions for roadside beautification. R.I. Dep't of Environment Management, Div'n of Forest Environment, Policy on Harvest Cuttings (DFE-MA-1018) (Aug. 1979). See also Conn. Dep't Environment Protection, Directive 2310, D2, III (June 8, 1979) (100-foot buffer strips along roads, recreational trails, and recreational areas in which fifty percent of the basal area of the stand must be left).
 - 63. PA. BUREAU OF FORESTRY, FORESTRY RESOURCE PLAN § 3(B)(1) (1975).
 - 64. Id. § 3(E)(2)(a) (1976).
 - 65. Id. §§ 3(B)(1) (1975), 3(E)(2) (1976), 5(B)(2) (1975).
- 66. Conn. Dep't of Environmental Protection, Directive 2310, D2, IV (June 8, 1979).

of cuts must be "feathered" (progressively fewer trees removed), ridgetops must not be cut, and scenic buffers must be left. Connecticut also directs that special attention be given to leaving unique specimens and flowering vegetation and to using special measures within 100 feet of roads, recreational trails, and recreational areas.⁶⁷ These same standards are recommended for har vesting on private lands.

III. INCENTIVES AND EASEMENTS

Laws have been passed to encourage both the growing of trees and the preservation of open space.

A. Forest Croplands

Thirty-nine states modify property taxes in favor of forestry ⁶⁸ While these provisions have the effect of beautifying the land-scape by encouraging the growing of trees, their primary intent is to enhance timber production. These provisions, most of which were passed when public support for direct regulation was low ⁶⁹ counteract to some extent the economic pressure on owners to not invest in forestry or to liquidate their crop prematurely ⁷⁰ For example, Chapter 161 of Iowa's Fruit Tree and Forest Reservation Law provides a tax exemption for owners whose woodlands are adequately stocked. ⁷¹ Owners in Missouri may devote a minimum of twenty acres exclusively to wood and timber production and receive tax reductions. ⁷² Also, a landowner in Delaware whose parcel covers at least ten acres may apply for a thirty-year

⁶⁷ Id.

^{68.} Siegel & Kerr, Update on Property Tax Laws, 88 Am. Forests 36, 38 (1982). Many laws provide that the timber be taxed only when it is harvested, which is called yield tax. Forest Service, U.S.D.A., Misc. Pub. No. 1077 1967 State Forest Tax Law Digest 4 (1968). An example of yield tax is Ala. Code § 9-13-80 (1986).

^{69.} See C. H. STODDARD, THE SMALL PRIVATE FOREST IN THE UNITED STATES 58-9 (1961).

^{70.} See Newport, Factors Affecting Forest Industry Lands as Timber Supply Source, in Report, supra note 1, at 148, 153; Unkel & Cromwell, California Timber Yield Tax, 6 Ecology L.Q. 831, 833 (1978); Dana, Forestry Policies and Programs, in Timber! Problems—Prospects—Policies 159, 168 (W.A. Duerr ed. 1973).

^{71.} IOWA CODE ANN. § 161.1 (West 1986). See also N.D. CENT. CODE § 57-57-01 (1983). Similar tax exemptions for real property devoted to forestry purposes are found in Hawaii, Massachusetts, and Oregon. Sizemore, supra note 9, at 287-89.

^{72.} Mo. Ann. Stat. § 254.010 (Vernon 1963 & Supp. 1986) (forest cropland classifications). Similar tax reductions exist in Connecticut, New York, Indiana, and Michigan. Sizemore, supra note 9, at 287-88. See, e.g., N.Y. Real Prop Tax Law § 480-a (McKinney 1984); Note, Reassessing New York's Forest Tax: The Case For Site Productivity Assessment, 46 Alb. L. Rev. 1447 (1982).

exemption from county property taxes if the parcel supports "sufficient forest growth to a suitable character and is so distributed as to give reasonable assurance that a stand of merchantable timber will develop."⁷⁸

In order to qualify for reduced taxation of forestlands in Wisconsin and Michigan, owners must agree to keep their lands open for recreational use. Because of this condition, many landowners refuse to avail themselves of this incentive. In California, where no such condition is imposed, more than seventy percent of the commercial timberland is enrolled under that state s law 74

B. Federal Capital Gains Taxation

The sale or exchange of timber was first granted capital gains treatment over veto by President Franklin D. Roosevelt,⁷⁵ but that special treatment ended with the passage of the Tax Reform Act of 1986, which provides that income from the sale of timber is taxed as ordinary income.⁷⁶ There is a widely shared belief that capital gains treatment has encouraged investment in growing trees,⁷⁷ and therefore indirectly contributed to landscape values. The effect of the change in the tax law is not known.

73. Del. Code Ann. tit. 7 §§ 3501, 3502 (1986). The intent of these sections is to exclude land planted for ornamental purposes or as nusery orchard from classifications as commercial forest plantation. Rhode Island offers fifteen year exemption to certain land planted for forestry. R.I. Gen. Laws § 44-3-8 (1986).

74. Siegel & Kerr, supra note 68, at 62-3. On taxation of forests in general, see generally Note, supra note 72, at 1447

75. U.S. CONG., JOINT ECONOMIC COMM., THE ECONOMICS OF FEDERAL SUBSIDY PROGRAMS, Part 3—Tax Subsidies 317 321, 329, and 338, The Federal Tax Subsidy of the Timber Industry (1972) [hereinafter Federal Tax Subsidy of the Timber Industry].

76. H.R. REP No. 99-841, 99th Cong., 2d Sess., pt. II at 119 (1986); see 26 U.S.C. § 631 (1987).

77 See, e.g., Row, Balancing Supplies and Demands, Research in Forest Economics and Forest Policy 83, 108 (M. Clawson ed. 1977) ("The Federal income tax provisions are perhaps the largest single public incentive to grow timber."); Report, supra note 1, at 11 ("The Panel believes that according capital gains tax treatment to timber crops has greatly stimulated investment in forestry by both industries and individuals."); Forest Service, U.S.D.A., The Cooperative Forest Management Program—Past and Future, A Summary Report 18 (1975) ("If it were not for the capital gains tax treatment on timber crops, the timber supply problem would be even more severe than now forecast."); Smith, Improving the Productivity of Nonindustrial Private Woodlands, in Report, supra note 1, at 387 ("The capital gains treatment of returns from timber growing is presently the most important single, beneficial, and indirect subsidy."); Newport, supra note 70, at 154 ("In growing timber for profit one of the more important factors is the income tax benefit of the capital gains treatment on timber profits."). But see Federal Tax Subsidy of the Timber Industry, supra note 75, at 317 ("There is no compelling evidence that the timber tax subsidy is effective in increasing the supplies of timber or in encouraging conservation.").

C. Scenic Easements and Open Space

Scenic easements and open space laws are popular methods employed to protect and enhance forest amenity. Scenic ease ments are acquisitions by public agencies of interests in land short of the fee interest. For example, under the California Open Space Act of 1959 cities and counties are authorized to acquire land outright or acquire development rights or easements to provide open space.⁷⁸ Illinois is one of a number of states which allow acquisition of scenic easements for the preservation of the natural beauty of forests.⁷⁹ In New Hampshire, landowners may surrender rights (conservation restrictions) to a governmental body or conservation organization in order to maintain their land in its natural, scenic, or open condition.80 In Missouri, the state, nonprofit conservation organizations, cities, and counties may ac quire a development right, restrictive covenant, conservation easement, covenant, or other contractual right in land to conserve and properly utilize open spaces and areas.81

In Hawaii, a landowner or leaseholder may surrender for a term of at least twenty years, the care of any land to the state to be managed as forest or water reserve lands.⁸² The State of Hawaii

78. CAL. Gov't Code § 6954 (West 1986). Open space is defined as "any space or area characterized by (1) great natural scenic beauty or (2) whose existing openness, natural condition, or present state of use, if retained, would enhance the present or potential value of abutting or surrounding urban development, or would maintain or enhance the conservation of natural or scenic resources. Id. § 6954. See generally Note, Preservation of Open Spaces Through Scenic Easements and Greenbelt Zoning, 12 Stan. L. Rev. 638 (1960); Whyte, Securing Open Space for Urban America: Conservation Easements, 36 Urban Land Inst. Tech. Bull. 45 (1959); Land, Unraveling the Urban Fringe: A Proposal for the Implementation of Proposition Three, 19 Hast. L.J. 429 (1968).

Pennsylvania also has an open space program administered by the counties which offers lower property taxes to owners who agree not to develop their land. Only limited number of counties have adopted the program. Letter from O. Lynn Frank, Chief of Pennsylvania Timber Management Section, to author (Sept. 28, 1979). See also R.I. GEN. Laws §§ 44-27-1, 44-5-12 (1980) (land classified as forest land taxed according to actual use).

- 79. Letter from John A. Sester, Ill. Dep't of Conservation, to author (Oct. 2, 1979); e.g., ILL. ANN. STAT. ch. 121, § 4-201.15 (Smith-Hurd 1985); Letter from George H. Pierson, Chief of New Jersey's Bureau of Forest Management, to author (Sept. 18, 1979).
- 80. N.H. REV. STAT. ANN. § 477:45 (1983). There are significant tax incentives (income and inheritance) in addition to the desire of landowners to protect their land for future generations. McClure, Perspectives on Open Space, 137 Forest Notes 6 (1979).
- 81. Mo. Ann. Stat. § 67.870 (Vernon Supp. 1985). The limitation in uses must be taken into consideration in property tax assessment. *Id.* § 67.895.
- 82. HAWAII REV. STAT. § 183-15 (1976). In return for surrender, no taxes are levied or collected on the land, but if the surrender is withdrawn, the owner is liable for back taxes

may also acquire forest reserve easements, defined as the right to possession and control of land for the purposes of protecting and promoting forest growth, including the right to exclude the owner and all others from the land.⁸³

IV THE TAKING QUESTION

According to the Fifth Amendment of the United States Constitution, private property shall not "be taken for public use, without just compensation." This amendment raises three issues: (1) whether the governmental action promotes a public purpose; (2) whether the action "takes" private property and (3) if so, whether the court should invalidate the action or award the landowner damages. These issues are addressed in order in the context of aesthetically motivated laws.

A. Public Purpose

To be valid, any governmental action must promote a public purpose. In earlier times it was felt that land could be taken only for purposes considered necessary and useful to the public, and not merely for public pleasure and aesthetic gratification. The modern trend recognizes aesthetics as a public purpose under the police power and the power of eminent domain.⁸⁴

The trend toward acceptance of beauty as a public purpose has been gradual. Most courts have required that more traditional purposes also be present. For example, land within a certain distance from schools, churches, and another places where people gather can be placed off-limits for electrical power lines because of the supposedly greater risk of fire.⁸⁵ Similarly the courts have

and penalty. This law dates back to 1903. Letter from Libert K. Landgraf, Hawaii State Forester, to author (Aug. 7 1979); 1903 Hawaii Sess. Laws ch. 44, § 11.

^{83.} HAWAII REV. STAT. § 183-32 (1976). Forest reserve easements may be acquired by condemnation.

^{84. 2}A J. SACKMAN, NICHOLS' THE LAW OF EMINENT DOMAIN § 7.45, at 7-296 (3d ed. 1983 & 1986 Supp.); R. M. ANDERSON, AMERICAN LAW OF ZONING § 7.14 (3d ed. 1986); 6 McQuillin, The Law of Municipal Corporations §§ 24.15, 24.16 (1980). "The sense of smell is protected, as well as our sense of hearing. But in the field of municipal aesthetics the law has not kept pace with the concentration of the population and the resultant problems. Promotion of beauty was once considered luxury. N. F Baker, Legal Aspects of Zoning 2 (1927).

^{85. 2}A J. SACKMAN, supra note 84, § 7.45[2][a], at 7-309 (1983). Kahl v. Consolidated Gas, Elec. Light & Power Co., 191 Md. 249, 60 A.2d 754 (1948). Cf. Williams v. Hathaway, 400 F Supp. 122 (D. Mass. 1975) (public nude bathing banned because of environmental harm inflicted by increased numbers of people and vehicles).

found that billboards could fall in earthquakes or heavy winds, could become fire hazards due to the accumulation of refuse behind them, could divert the attention of drivers, and could hide robbers or provide a place for immorality ⁸⁶ Exemplifying this approach, the New York Court of Appeals in 1932 wrote, "Beauty may not be queen, but she is not an outcast beyond the pale of protection or respect. She may at least shelter herself under the wing of safety morality or decency" ⁸⁷

More recent opinions have recognized aesthetics alone as an acceptable public purpose as, for example, in the taking of private property for a road to be used exclusively for pleasure driving, recreation, or furnishing a view of natural scenery ⁸⁸A Wisconsin case quite apposite to forest aesthetics, upheld acquisition of scenic easements along particular highways under the power of eminent domain. ⁸⁹ The Wisconsin Supreme Court wrote:

The concept of the scenic easement springs from the idea that there is enjoyment and recreation for the traveling public in viewing a relatively unspoiled natural landscape, and involves the judgment that in preserving existing scenic beauty as inexpensively as possibly a line can reasonably be drawn between existing uses, and uses which have not yet commenced but

^{86.} St. Louis Poster Advertising Co. v. City of St. Louis, 249 U.S. 269 (1919); E.B. Elliott Advertising Co. v. Metropolitan Dade County, 425 F.2d 1141 (5th Cir. 1970), cert. denied, 400 U.S. 805 (1970); In re Wilshire, 103 F 620 (S.D. Cal. 1900) (earthquake danger); Moore v. Ward, 377 S.W.2d 881 (Ky. 1964); St. Louis Gunning Advertising Co. v. City of St. Louis, 235 Mo. 99, 137 S.W 929, error dismissed, 231 U.S. 761 (1911) (refuse, robbers and immorality); General Outdoor Advertising Co. v. Dept. of Public Works, 289 Mass. 149, 193 N.E. 799 (1935); Opinion of the Justices, 103 N.H. 268, 169 A.2d 762 (1961); United Advertising Corp. v. Metuchen, 42 N.J. 1, 198 A.2d 447 (1964); New York State Thruway Authority v. Ashley Motor Court, 10 N.Y.2d 151, 176 N.E.2d 566 (1961) (distrac tion to motorists); Markham Advertising Co. v. State, 73 Wash. 405, 439 P.2d 248 (1968), reh g denied, 393 U.S. 1112, appeal dismissed, 393 U.S. 316 (1968). See generally Searles, Aesthetics in the Law, 41 N.Y. St. B.J. 210 (1969); Annot., 81 A.L.R.3d 564 (1977); Annot., 21 A.L.R.3d 1222 (1968); Note, Zoning-Stronger Than Dirt: Aesthetics-Based Municipal Regulations May Be Proper Exercise of the Police Power, 18 WAKE FOREST L. REV. 1167 (1982); Note, Beyond the Eye of the Beholder: Aesthetics and Objectivity, 71 Mich. L. Rev. 1438 (1973); Leighty, Aesthetics as Legal Basis for Environmental Control, 17 WAYNE L. REV. 1347 (1971).

⁸⁷ Perlmutter v. Greene, 259 N.Y. 327 332, 182 N.E. 5, 6 (1932). For citations to much of the prodigious amount of legal scholarship on whether aesthetics is proper goal of regulation, see 2A J. Sackman, supra note 84, § 7.45[2][a], at 7-309 n.38 (1983) and 1 R. M. Anderson, supra note 84, at § 7.13 n.99. (1976). See also R. Anderson, Zoning Law & Practice in New York State, §§ 7.04-7.15 (1963).

^{88. 2}A J. SACKMAN, supra note 84, § 7.22[1], at 7-132 (1983).

^{89.} Komrowski v. State, 31 Wis. 2d 256, 142 N.W.2d 793 (1966).

involve more jarring human interference with a state of nature.⁹⁰

Many courts have come to recognize that an aesthetic purpose alone is a public purpose or use sufficient to allow governmental acquisition or control.⁹¹ As stated by the United States Supreme Court, "The concept of the public welfare is broad and inclusive. [Citation omitted.] The values it represents are spiritual as well as physical, aesthetic as well as monetary"⁹² Thus, the judicial trend is to recognize forest aesthetics as a proper public purpose.

B. Aesthetic Takings

Commentators have suggested that those who would infringe upon the rights of the forest enterprise by denying logging would have an obligation to compensate the logging company 93 Another commentator states that "[a] basis for public regulation of visual quality would have to be found in holding scenery to be a public resource and visible debris a public evil." It might also be reasoned that, where timber growing and harvesting are pre existing uses which are consistent with the characteristics of the surrounding property the government may prohibit (without compensation) practices which lead to disfigurement of the land-

^{90.} Id. at 263, 142 N.W.2d at 796. See also State v. Gallop Building Co., 103 N.J. Super. 367 (App. Div. 1968) (requirement to plant and maintain trees in buffer zone).

^{91.} See, e.g., Donnelly & Sons v. Mallar, 453 F Supp. 1272 (S.D. Me. 1978), rev d Donnelly & Sons v. Campbell, 639 F.2d 6 (1st Cir. 1980), aff'd 453 U.S. 916 (1980); City of Phoenix v. Fehlner, 90 Ariz. 13, 363 P.2d 607 (1961); Metromedia, Inc. v. City of San Diego, 26 Cal. 3d 848 (1980); Smyrna v. Parks, 240 Ga. 699, 242 S.E.2d 73 (1978); State v. Diamond Motors, Inc., 50 Hawaii 33, 429 P.2d 825 (1967); Jasper v. Commonwealth, 375 S.W.2d 709 (Ky. 1964); Shreveport v. Brock, 230 La. 651, 89 So. 2d 156 (1965); Donnelly Advertising Corp. v. City of Baltimore, 279 Md. 660, 370 A.2d 1127 (1977); Donnelly & Sons, Inc. v. Outdoor Advertising Bd., 361 Mass. 746, 282 N.E.2d 661 (1972); State v. Miller, 83 N.J. 402, 416 A.2d 821 (1980); Suffolk Outdoor Advertising Co. v. Hulse, 43 N.Y.2d 483, 373 N.E.2d 263, 402 N.Y.S.2d 368 (1977), appeal dismissed, 438 U.S. 808 (1978); State v. Buckley, 16 Ohio St. 2d 128, 243 N.E.2d 66 (1968), appeal dismissed, 395 U.S. 163; Oregon City v. Hartke, 240 Or. 35, 400 P.2d 255 (1965).

^{92.} Berman v. Parker, 348 U.S. 26, 33 (1954).

^{93.} J. KRUTILL & FISHER, THE ECONOMICS OF NATURAL ENVIRONMENTS: STUDIES IN THE VALUATION OF COMMODITY AND AMENITY RESOURCES 33 (1975), citing Coase, The Problem of Social Cost, 2 J. L. & Econ. 1 (1960), Demsetz, The Exchange and Enforcement of Property Rights, 7 J. L. & Econ. 11 (1964), and Demsetz, Some Aspects of Property Rights, 9 J. L. & Econ. 61 (1966). See generally Michaelman, Toward Practical Standard for Aesthetic Regulation, 15 Prac. Law. 36, 38 (1969).

^{94.} Smith, supra note 2, at 369, 388.

scape, at least where the prohibition does not deprive the owner of all reasonable beneficial use of the forest.⁹⁵

The terms "disfigurement" and "public evil" invoke thoughts of regulations under the police power to further public health, safety morals, or the general welfare. Regulations which further these values will ordinarily withstand an attack based on the taking clause. Since the police power has expanded to encompass consideration of aesthetics, laws which prohibit aesthetic nuisances are valid. The police power has expanded to encompass consideration of aesthetics, laws which prohibit aesthetic nuisances are valid. The police power has expanded to encompass consideration of aesthetics, laws which prohibit aesthetic nuisances are valid.

While no case law has been found specifically deciding the constitutionality of purely aesthetic restrictions on commercial timber management, a comparison can be drawn with a succession of cases involving restrictions on quarrying and removal of topsoil. These restrictions are said to be justifiable mainly on aesthetic grounds. In these cases, the courts have upheld the restrictions

95. In Highway Comm' v. Fultz, 261 Or. 289, 293, 491 P.2d 1171, 1173 (1971), the court upheld denial of permit to build road and revetiment where construction would interfere with the public customary right of entrance and where the road would constitute "an unsightly blemish upon an otherwise natural area of considerable scenic beauty. On the other hand, in Sheerr v. Township of Evesham, 184 N.J. Super. 11, 445 A.2d 46 (1982), private land was held to be impermissibly zoned for public park and recreational purposes, effectively denying all reasonable beneficial uses. This standard was employed by the United States Supreme Court in Penn. Central v. New York, 438 U.S. 104 (1978).

96. E. Freund, The Police Power, Public Policy and Constitutional Rights 546-48 (1904). 16A Am. Jur. 2D Constitutional Law § 365 (1979). Conclusory language is often substituted for analysis by the courts; if the police power is used, there is taking. Berger, Nobody Loves an Airport, 43 S. Cal. L. Rev. 631, 655, 661-663 (1970). Confusion also re sults from the failure of courts to realize that statute may have proper public purpose yet still constitute taking. Hadacheck v. Sebastian, 239 U.S. 394 (1915) (diminution in property value from \$800,000 to \$60,000 as result of prohibition). Such cases are criticised for ignoring that the business was in no way improper when it began; rather, the impropriety of the use occurred only after construction on adjacent property over which the complaining owner had no control. See Jorg Lucke, Amerikanische Enteignungsrechtsprechung und Deutsche Parallelen, 67 Verwaltungsarchiv 48, 53-54 (1976). See also Ohio Oil Co. v. Indiana, 177 U.S. 190 (1900); Walls v. Midland Carbon Co., 254 U.S. 300 (1920) (depletion of resources noxious use); People v. Levine, 119 Misc. 766, 198 N.Y.S. 328 (1922) (factory crushing scrap iron).

97 See Noel, Unaesthetic Sights as Nusances, 25 Cornell L.Q. 1 (1939). "[A] nuisance may be merely right thing in the wrong place. Village of Euclid v. Ambler Realty Co., 272 U.S. 365, 388 (1926) (upholding the exclusion of businesses from residential areas). An eyesore in neighborhood of residences might be public nuisance, and as ruinous to property values in the neighborhood generally, as disagreeable noise, or odor, or menace to safety or health. State ex rel. Civello v. City of New Orleans, 154 La. 271, 283, 97 So. 440, 444 (1923). See also People ex rel. Busch v. Projection Room Theater, 17 Cal. 3d 42, 130 Cal. Rptr. 328, 550 P.2d 600 (1976), cert. denied, 429 U.S. 922 (1976) (exhibition of obscenity nuisance).

as not violative of the taking clause.⁹⁸ A court could uphold a requirement that buffer trees be left to screen a clearcut from public view by analogy to ordinances, held to be constitutional, requiring that junkyards be screened from the highway ⁹⁹ or that trees be planted and maintained in a buffer zone to screen commercial uses from the view of an adjoining residential zone.¹⁰⁰

Restrictions on slash and logging near public waters and thor oughfares might be compared to ordinances which protect land surrounding public parks.¹⁰¹ They might also be roughly compared to setback ordinances which prohibit construction within certain distance from roads, lakes and adjoining property ¹⁰² Other sources for comparison might be prohibitions against the maintenance of signs on private property within a specified distance of any state park or highway¹⁰³ and regulations regarding fences.¹⁰⁴ Legislation which prohibits unnecessary logging of small trees has also been upheld.¹⁰⁵

98. 1 R. M. Anderson, supra note 84, at §§ 7.23, 15.64 (1976). See Lizza & Sons, Inc. v. Town of Hempstead, 19 Misc. 2d 403, 69 N.Y.S.2d 296 (1946), aff'd, 272 A.D. 921, 71 N.Y.S.2d 14 (removal of topsoil); Krantz v. Amherst, 192 Misc. 912, 80 N.Y.S.2d 812 (1948) (removal of topsoil); Burroughs Landscape Constr. Co. v. Ovster Bay, 186 Misc. 930, 61 N.Y.S.2d 123 (1946) (removal of topsoil). Cases concerning quarrying are found at 2 R. M. Anderson, supra note 84, at §§ 15.64-.68.

99. See Farley v. Graney, 146 W Va. 22, 119 S.E.2d 833 (1960); Nat'l Used Cars, Inc. v. City of Kalamazoo, 61 Mich. App. 520, 233 N.W.2d 64 (1965).

100. State v. Gallop Building Co., 103 N.J. Super. 367 (App. Div. 1968) (buffer trees). See generally Note, Aesthetic Nuisance, 45 N.Y.U. L. Rev. 1075 (1970).

101. See 2 R. M. Anderson, supra note 84, at § 9.71. See also Stanley Co. of Am. v. Tobriner, 298 F.2d 318 (D.C. Cir. 1961).

Restrictions on land surrounding public park to improve the appearance of the park must not be so severe that they render the private property valueless. *See* Eaton v. Sweeney, 257 N.Y. 176, 177 N.E. 412 (1931).

102. See 1 R. M. Anderson, supra note 84, § 3.06 n.61, Annot., 94 A.L.R.2d 419 (1964). See, e.g., Goneb v. Fox, 274 U.S. 603 (1927) (requirement of setback is constitutional).

103. E.g., N.Y PARKS & REC. LAW § 1307 (West 1979) (prohibiting most signs within 500 feet of any state park or parkway). See also, 2 R. M. Anderson, supra note 84, § 15.85, at 744 n.50.

104. See, e.g., ARK. STAT. ANN. § 41-3357 (1977) (screening auto wreckage); ARIZ. REV. STAT. ANN. § 28-213 (1976) (screening junkyards); Del. Code Ann. iii. 17 § 1206 (1975) (screening junkyards); Fla. STAT. ANN. § 339.241 (West 1984) (screening junkyards); Hawaii Rev. Stat. § 264-85 (1984) (screening junkyards); Ind. Code Ann. § 32-10-4-1 (Burns 1980) (limits hedges along highways to maximum five-foot height); Vt. Stat. Ann. iii. 24, § 3817 (1975) (prohibits maintenance of an unnecessary fence which annoys adjoining property owners, obstructs their view, or deprives them of light or air).

105. In re Opinion of the Justices, 103 Me. 506, 69 A. 627 (1908). Cf. State v. Theriault, 79 Vt. 617 41 A. 1030 (1898) (a three-year prohibition against fishing in waters stocked with fish); Windsor v. State, 103 Md. 611, 64 A. 288 (1906) (law forbade possession of immature oysters, even if privately grown on private property).

An owner of forestland who wishes to convert the land to non-forest uses may not have a constitutional right to do so unless the non-forest uses are consistent with the character of the surrounding property. For example, the California Appellate Court upheld the State's Coastal Commission's denial of a building permit for an owner to construct a house on his 2.32 acre parcel in the Del Monte Forest. The commission had denied the permit because the development would damage a fragment of primeval Monterey cypress forest of great value and would partially destroy an archeological site. 106

According to a commentator writing in 1917 the real problem arises when the government regulates nonproductive private for ests. One response to this problem is seen in California's restrictions on conversion of timberland preserve zones:

The uneconomic character of the existing use shall not be sufficient reason for the conditional approval of a conversion. The uneconomic character of the existing use may be considered only if there is no other reasonable or comparable timber growing use to which the land may be put.¹⁰⁸

The administrative regulations expand on what is meant by a reasonable or comparable timber-growing use. The regulations provide that, upon application, the director or board of forestry is to consider timber stand volume, timber growth rate, timber site and soil, climate, potential markets, and any other relevant factors. These regulations may assist forestland owners in situations in which aesthetic and other restrictions render timber production uneconomical. They may represent a safety valve to ease the pressure to file suit to litigate the taking issue in court.

C. Remedies

Until comparatively recent times, courts did not recognize the concept that an owner was entitled to compensation even though his property had not actually been taken, *i.e.*, appropriated.¹¹⁰ Gradually the courts began to recognize that harsh restrictions

^{106.} Davis v. California Coastal Zone Conservation Comm n, 57 Cal. App. 3d 700, 129 Cal. Rptr. 417 (1976).

¹⁰⁷ Sargent, Conservation and the Police Power 12 ILL. L. Rev. 162, 164 (1917).

^{108.} Cal. Pub. Res. Code § 4621.2(c) (West 1984).

^{109.} CAL. ADMIN. CODE. tit. 14, § 111.6 (5-20-78). For discussion of California's restrictions on conversions outside timberland preserve zones, see Lundmark, supra note 9, at 173-76.

^{110. 2} J. SACKMAN, supra note 84, § 6.22 at 6-157 (1983).

could result in serious economic damage. Yet the courts used invalidation of the restrictions as a remedy and not the payment of damages.¹¹¹

In recent years, compensation has been granted to private owners whose property is not directly injured by a public improvement, but rather whose right to use their property is seriously limited by government regulations. 112 However more recent cases have broken this trend toward compensation, opting instead for the remedy of invalidation. Thus, when an owner of private property in New York City attacked a zoning ordinance which turned a private park into a public park, the court said that "a zoning ordinance is unreasonable if it renders the property unsuitable for any reasonable income production or other private use for which it [was] adapted and thus destroys its [the property's] economic value."113 As a result of the constitutional infir mity and despite the ordinance's attempt to compensate the owner by granting a development right, the New York Court of Appeals invalidated the ordinance as a deprivation or frustration of property rights without due process of law 114 Similarly the California courts hold that, should a zoning ordinance deprive the landowner of substantially all reasonable use of the property the landowner's remedy is invalidation of the ordinance, not damages.115

^{111.} Hagman, Compensable Regulation, in Windfalls for Wipeouts 256 (Hagman & Misczynski eds. 1978). "It hardly occurred to anyone that if the regulation was taking, then possible remedy was for the property owner to sue [for] damages or the acquisition of his property by the regulating government. Id. See, e.g., Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 416 (1922) (statute invalidated); and Hager v. Louisville & Jefferson County Planning & Zoning Comm n, 261 S.W.2d 619, 620 (Ky. Ct. App. 1953) (zoning ordinance invalidated).

^{112.} Hagman, supra note 111, at 272. See, e.g., Lomarch Corp. v. Mayor of Englewood, 51 N.J. 108, 237 A.2d 881 (1968); Sixth Camden Corp. v. Township of Evesham, 420 F Supp. 709 (D.N.J. 1976). See Regional Rail Reorganization Act Cases, 419 U.S. 102 (1974); Klopping v. City of Whittier, 8 Cal. 3d 39, 500 P.2d 1345, 104 Cal. Rptr. 1 (1972).

^{113.} Fred F French Investing Co. v. City of New York, 39 N.Y.2d 587 350 N.E.2d 381, 387 386 N.Y.S.2d 5 (1976).

^{114.} Id. See also Kaiser-Aetna v. United States, 444 U.S. 164 (1979) (regulations made private pond public aquatic park); Sheerr v. Township of Evesham, 184 N.J. Super. 11, 445 A.2d 46 (1982) (property zoned only for public park and recreational uses); Kozesnick v. Montgomery Township, 24 N.J. 154 (1953) (ordinances amended existing limited use, i.e. residential, provisions).

^{115.} Agins v. City of Tiburon, 24 Cal. 3d 266, 598 P.2d 25, 157 Cal. Rptr. 372 (1979), aff'd, 447 U.S. 255 (1980) (without reaching the issue of remedy).

Sometimes legislation contains a clear statement as to the availability of compensation. An owner of land including forestland, affected by a restriction under the Massachusetts Scenic Rivers Act may petition in court for a determination that the restriction deprives the forested property of its practical uses and constitutes an unreasonable exercise of the police power so as to become the equivalent of a taking without compensation. If the court finds that the restriction is unreasonable, then it will enter an order exempting the land of the petitioner from the restriction, but it cannot award damages.¹¹⁶

Other laws only give owners of forests and other property a right to compensation, and not invalidation. Among the most notable are the Highway Beautification Act¹¹⁷ and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.¹¹⁸

The American Law Institute suggests an alternative which could apply to the forest aesthetics situation: allow the agency which adopted the regulation to pay compensation or to have the regulation invalidated if a court finds the regulation a Constitutional taking. Of course, if the court does invalidate a regulation because it constitutes a taking, the agency may choose to pay fair market value for the property rights taken and acquire them in a separate action under its power of eminent domain. At a minimum, the agency might be required to compensate the owner for damages suffered while the invalid regulation was in effect. 120

116. Mass. Gen. Laws Ann. ch. 40, § 15C (West 1974). After finding has been entered in this fashion, the state is authorized to take the fee or any lesser interest in land by eminent domain for the purposes of the Massachusetts Scenic Rivers Act.

117 23 U.S.C. § 131 (1982). "Just compensation shall be paid upon the removal of the following advertising sign, display, or device. Id. § 131(g). For examples of state laws passed in compliance with the Highway Beautification Act (required to obtain federal aid highway funds), see Me. Rev. Stat. Ann. tit. 23, §§ 1915, 1916 (1978) and CAL. Bus. & Prof. Code § 5200 (West 1974). See generally 1 J. Sackman, supra note 84, § 1.42[10][a].

118. 42 U.S.C. § 4601 (1982). Payment under this act is not made for damage to property but to the person inconvenienced by the regulatory activity. Hagman, *supra* note 111, at 267. In other words, the act provides for just compensation plus. City of Scottsdale v. Eller Outdoor Advertising, 119 Ariz. 86, 579 P.2d 590, 599 (1978).

119. Model Land Dev. Code § 9-112(3) (1976). See generally Hagman, supra note 111, at 268-69. Florida reflects the Model Code in that if court finds taking, it remands the matter to the agency to consider whether it should grant requested permit, modify its decision, or pay compensation. Fla. Stat. § 380.086 (Supp. 1979).

120. See Sheerr v. Township of Evesham, 184 N.J. Super. 11, 445 A.2d 45, 74-5 (1982).

Conclusion

Trees and forests contribute tremendously to the beauty of the landscape, and the public has employed legal means to preserve and enhance that contribution. Some of the earliest laws sought to establish public parks and forests, and to ensure that public foresters pay attention to aesthetics.

The public has also come to expect private property to be managed and maintained with landscape in mind. To attain this goal, laws were first passed which gave incentives to owners who grew trees. More recent laws sometimes dictate that owners follow cer tain practices to protect or promote scenic values. Such laws can have a significant effect on the value of the forested property for timber or other economic uses.

Courts universally uphold laws which have aesthetic purposes, as long as other public purposes are also served. Some courts accept aesthetics alone as a proper public purpose.

Even if a particular restriction has a proper public purpose, the restriction may be so harsh that it prevents all economic or beneficial use of the property it restricts. If this is the case—and if the property could be beneficially used for a reasonable purpose in the absence of the restriction—then the restriction is said to constitute a taking of private property for public use without just compensation in violation of the Fifth Amendment.

Courts disagree on the remedy available to an owner whose land has been the subject of a taking. Some courts would require the public entity which imposed the restriction to purchase the property at fair market value. Others would merely invalidate the restriction or offer to let the public body purchase the property which it could otherwise do under the power of eminent domain. Still other courts would invalidate the restriction but require the public entity to compensate the owner for damages suffered while the unconstitutional restriction was in effect.