2 Wetland Policy and Visual-Cultural Values in the United States

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Introduction
The purpose of this chapter is to review and examine wetland laws and policy as they specifically affect visual-cultural values within the United States. The value of wetlands were documented in a multidiscipline symposium held at Lake Buena Vista, Florida, in 1977 (Greeson, Clark, and Clark, 1978). The definition of visual-cultural values with their attendant uses is heralded in a U.S. interagency task force report (Council on Environmental Quality, 1978). Wetland visual-cultural values are defined in the same way as in Chapter 1. Law and policy affecting how wetland land-use decisions are made occur within federal, state, and local governments. Pertinent laws, programs, and policies at all three levels will be briefly reviewed, but only in regard to visual-cultural values. A review of such laws and programs is comprehensively treated in Kusler (1978). The author will briefly review pertinent federal and state laws, programs, and policy guidance as well as critical court cases at the state level.

Policy implications will be reviewed at the end of the chapter.

Federal Programs Affecting Wetlands
Community wetland programs are encouraged by a number of federal programs. Some of the best known include the Coastal Zone Management Act of 1972, the National Flood Insurance Act of 1968, and the Rivers and Harbors Act of 1899. Each will be examined briefly.

1. The Coastal Zone Management Act of 1972. The Coastal Zone Management Act of 1972 applies to all states bordering on the oceans or the Great Lakes. To qualify for federal grants-in-aid for administration of a coastal zone program, a state must adapt land-use regulatory and purchase powers for coastal zone areas and either directly regulate uses or establish standards for local regulation of these uses. The Act also authorizes federal grants-in-aid for pur-
chase of estuarine sanctuaries, although these provisions have not been funded. States are required to inventory coastal zone areas of "particular concern." These have been defined by administrative guidelines to include wetland areas.

All coastal states have established coastal zone programs, although only one has been approved by the Department of Commerce as meeting administrative standards. Emphasis upon the identification and protection of coastal wetlands is a principal focus of many programs, including those of Maine, Massachusetts, Rhode Island, Connecticut, New York, North Carolina, Florida, California, Oregon, and Washington.

Many states have emphasized local and regional rather than state implementation of coastal zone policies including wetland protection, although the state retains the power to regulate directly coastal areas in the event that local units fail to adopt and administer regulations meeting state standards. States taking this approach include Maine, Oregon, Wisconsin, Minnesota, Virginia, and Washington. Local incentives for wetland regulation under state coastal zone programs include (1) local autonomy in administration and enforcement of regulations that would otherwise be implemented at state level, (2) state and federal data gathering and technical assistance, and (3) in a few states, state grants-in-aid. In addition, a community may gain a measure of control over federal projects in the coastal zone by adopting a program that is approved by the state and, in turn, by the Department of Commerce, since the Coastal Zone Management Act requires that federal projects comply with approved state coastal zone programs. Part of the purpose of the act is "to encourage states to achieve wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and aesthetic values [emphasis added]."

2. Corps of Engineers Permit Procedures. A permit is required from the U.S. Army Corps of Engineers for most fills and dredging of U.S. waters pursuant to the Rivers and Harbors Act of 1899 and the Federal Water Pollution Control Act Amendments of 1972. Under a judicially broadened definition of Corps jurisdiction, a Corps permit will soon be required for fills and dredging in lakes larger than five acres, rivers to the point of headwaters (the point at which flow is five cubic feet per second), coastal areas to the high-water mark, and associated wetlands. Permits will not be issued unless proposed uses are consistent with state coastal zone programs and local regulations. These requirements give community wetland protection programs a strong veto power over Corps permits.

In addition to the Corps' general guidelines, the Environmental Protection Agency (EPA) has published "Guidelines for Specification of Disposal Sites for Dredged or Fill Material" under section 404 of the Water Pollution Control Act Amendments of 1972. Within Subpart G, Human Use Characteristics of These Guidelines, EPA has included sections on recreation, aesthetics, and amenities. These provisions are quoted in full here to show the breadth and depth of the considerations included in these guideline regulations.

230.62 Recreation:

Recreation encompasses activities undertaken for amusement and relaxation. Water related outdoor recreation requires the use, but not necessarily the consumptive use, of natural aquatic sites and resources, including wetlands.

(a) Values. Much of our outdoor recreation is water-dependent. A host of activities, including fishing, swimming, boating, water-skiing, racing, clamming, camping, beachcombing, picnicking, waterfowl hunting, wildlife photography, bird watching and scenic enjoyment, take place on, in, or adjacent to the water. In many parts of the country, space and resources for aquatic recreation are in great demand. Water quality is a vital factor in determining the capacity of an area to support the various water oriented outdoor recreation activities.

(b) Possible loss of values. One of the more important direct impacts of dredged or fill disposal is on aesthetics; more serious impacts impair or destroy the resources which support recreation activities. Among the water quality parameters of importance to recreation that can be impacted by the disposal of dredged or fill material are turbidity, suspended particulates, temperature, dissolved oxygen, dissolved materials, toxic materials, pathogenic organisms, degradation of habitat, and the aesthetic qualities of sight, taste, odor, and color. Changes in the levels of these parameters can adversely modify or destroy water use for several or all of the recreation activities enjoyed in any given area.
(c) Guidelines to minimize impacts. In addition to the consideration of alternatives in 230.10(a), Guidelines to minimize impacts as described in 230.10(d), and water dependency in 230.10(e), and the specific measures described in Subparts E and F, where appropriate, specific measures to minimize impacts on recreational resources include, but are not limited to:

(1) Selecting discharge sites removed from areas of recognized recreational value.

(2) Selecting time periods of discharge that do not coincide with seasons or periods of high recreational use.

(3) Use of procedures and methods as described in 230.31(c) and 230.32(c) to minimize and contain the amounts of suspended particulates and dissolved contaminants, including nutrients, pathogens, and other contaminants released to the water column.

(d) Special determinations. In addition to the determination required by 230.20, and the special determinations required by Subparts E and F, where appropriate, special determinations where recreational areas may be affected by the discharge of dredged or fill material include whether the discharge will:

(1) Change or affect the suitability of an area of high recreational value to provide recreational opportunities.

230.63 Aesthetics:

Aesthetics, associated with the aquatic ecosystem, including wetlands, consist of the perception of beauty by one or a combination of the senses of sight, hearing, touch and smell. Aesthetics of aquatic ecosystems apply to the quality of life enjoyed by the general public as distinct from the value of property realized by owners as a result of access to such systems (see 230.64).

(a) Values. The aesthetic values of aquatic areas are usually the enjoyment and appreciation derived from the natural characteristics of a particular area. Aesthetic values may include such parameters as the visual distinctiveness of the elements present, which may result from prominence, contrasts due to irregularity in form, line, color, and pattern; the diversity of elements present including topographic expression, shoreline complexity, landmarks, vegetative pattern diversity, waterform expression, and wildlife visibility; and the compositional harmony or unity of the overall area...

(b) Possible loss of values. The discharge of dredged or fill material can mar the beauty of natural aquatic ecosystems by degrading the water quality, creating distracting disposal sites, inducing nonconforming developments, encouraging human access, and by destroying vital elements that contribute to the compositional harmony or unity, visual distinctiveness, or diversity of an area.

(c) Guidelines to minimize impacts. In addition to the consideration of alternatives in 230.10(a), Guidelines to minimize impacts as described in 230.10(d), water dependency in 230.10(e), and specific measures described in Subparts D, E and F, where appropriate, specific measures to minimize impacts on aesthetic values include, but are not limited to:

(1) Selecting discharge sites and following discharge procedures that will prevent or minimize any potential damage to the aesthetically pleasing features of the aquatic site, particularly with respect to water quality.

(2) Following procedures that will restore the disturbed area to its natural condition.

(d) Special determination. In addition to the determinations required by 230.20 and the special determinations required by Subparts E and F, where appropriate, special determinations where aesthetic values in aquatic areas may be affected by the discharge of dredged or fill material include whether the discharge will change or affect the elements of an aquatic or wetland area which contribute to its aesthetic appeal.

230.64 Amenities

Amenities derived from a natural aquatic ecosystem, including wetlands, include any environmental feature, trait, or character that contributes to the attractiveness of real estate, or to the successful operation of a business serving the public on its premises. Aquatic resources which are unowned or publicly owned may provide amenities to privately owned property in the vicinity.

(a) Values. Persons or institutions claiming amenities of the unowned or publicly owned aquatic ecosystem have monetary investments in property, a portion of which can be realized only because of the existence of unowned but accessible aquatic amenities. The added property value attributable to natural amenities varies with the quality, use and accessibility of aquatic and wetland areas.

(b) Possible loss of values. The discharge of dredged or fill material can adversely affect the particular features, traits, or characters of an aquatic area which make it valuable as an amenity to property owners. Dredge or fill activities which degrade water quality, disrupt natural substrata and vegetational characteristics, deny access to the amenities, or result in changes in odor, air quality, or noise levels may reduce the value of an aquatic area as an amenity to private property.

(c) Guidelines to minimize impacts. In addition to the consideration alternatives 230.10(a), the
Guidelines to minimize impacts as described in 230.10(d), water dependency in 230.10(e), and specific measures described in Subparts E and F, where appropriate, specific measures to minimize impacts on amenities include, but are not limited to:

1. Selecting discharge sites which are of lesser value to nearby property owners as natural aquatic or wetland amenities.
2. Timing the discharge to avoid interference during seasons or periods when the availability and accessibility of aquatic or wetland amenities are most important.
3. Following discharge procedures that do not disturb features of the aquatic ecosystem which contribute to the value of an aquatic amenity.

(d) Special determination. In addition to the determinations required by 230.20 and the special determinations required by Subparts E and F, where appropriate, special determinations where aquatic amenities may be affected by discharges of dredged or fill material include whether the discharge will change or affect any feature of an aquatic area which contributes to its value as an amenity to property owners. [emphasis added].

Note that EPA has written guidelines treating three distinct classes of visual-cultural values: recreational, aesthetic, and amenity. There are a number of interesting points in the characterization of these values. First, recreational values include those recreational activities that “take place on, in, or adjacent to the water,” thus including the adjacent upland as contributing to the enjoyment of the value. Second, aesthetics includes “perception of beauty by one or more of a combination of the senses of sight, hearing, touch and smell,” thus not delimiting aesthetics to visual only. Note also that the “enjoyment and appreciation [are] derived from natural characteristics of a particular area.” Many of these “characteristics” are documented and described in the following chapters. Third, and finally, note the special treatment of the amenity values, which in contrast to values enjoyed by the general public are “derived from a natural aquatic ecosystem, including wetlands, include any environmental feature, trait, or character that contributes to the attractiveness of real estate, or to the successful operation of a business serving the public on its premises,” thus recognizing the economic attributes of aesthetic values through their contribution to property values and operation of certain amenity-dependent businesses.

In addition to recognizing these three distinctive classes of visual-cultural values, the EPA guideline regulations even specify a procedure for “site appearance determinations,” which include photographic documentation of the site in question. The following passage is taken from EPA’s guideline regulations and specifies procedures for visually documenting site conditions:

230.20

(g) Proposed disposal site appearance determinations. A determination shall be made of the appearance of the proposed disposal site and appropriate parts of the surrounding environment prior to the initiation of a discharge activity. Photographic determinations are preferable to narrative descriptions, provided they are accompanied by pertinent data such as exact location of photographer and direction of exposure, time of year and day and weather conditions affecting film exposure, the kind of camera, lens, etc. used, and the photograph clearly depicts those aspects of the aquatic environment and wetlands that will be impacted or modified by the discharge activity.

Comment: The appearance of the proposed disposal site and its surroundings prior to any discharge activity is relevant to the findings required in 230.10 and 230.11. Sufficiently detailed information concerning the appearance of the disposal site before discharge occurs will aid in predicting the impact of the discharge, assessing the adequacy of measures to minimize impacts, monitoring compliance with the permit, and restoring the site where appropriate.

(h) Special determinations. A determination shall be made of whether the material to be discharged will disrupt any special disposal site characteristics, taking into consideration the resource values, possible loss of these resources, and these Guidelines, as well as special determinations described in Subparts E through G of the proposed disposal site.

This specific procedure was suggested by the author to EPA to ensure adequate records of the site before an activity has taken place, and to be used as visual information for assessing the adequacy of mitigation procedures and whether they had in fact taken place.

State Programs Affecting Wetlands

State programs pertaining to wetlands include coastal wetlands acts, inland wetlands acts,
coastal management acts, critical-area acts, navigable water acts, shoreline and lake management acts, open-space acts, and land-use planning acts.

Specific state statutes that mention aesthetic enjoyment of wetlands, scenic values of wetlands, or preservation of natural landscape character include coastal wetlands acts for Delaware,12 Maryland,13 New York,14 Rhode Island,15 and Virginia16; inland wetlands and navigable waterways acts for New Hampshire,17 Vermont,18 and Wisconsin19; state critical-area legislation for Alabama,20 Arkansas,21 Minnesota,22 and Virginia23; coastal Management Acts for New Jersey,24 Rhode Island,25 and Texas26; shoreline and lake management acts for Maine,27 Michigan,28 and Washington29; an open-space act for Pennsylvania30; and a land-use planning act for Vermont.31

Specific state statutes that mention recreational values or enjoyment include coastal wetlands acts for Delaware,32 Mississippi,33 and New Jersey34; an inland lakes act for Michigan35; and a freshwater wetlands and a coastal management act for Rhode Island.36 The critical-area acts for Minnesota37 and Alabama38 include cultural and historical values of wetlands. New York State’s Tidel Wetlands Act39 is the most comprehensive by including the educational and research values of wetlands as well as recreational and aesthetic values.

Local Regulation of Wetlands

Local regulation of wetland activities is required by state wetland protection acts in Virginia, Massachusetts, Connecticut, and New York. The Wisconsin and Washington State shoreland zoning programs and the Florida critical-area program, which has been interpreted to apply to Big Cypress and Green Swamps, also require local controls. More than 1,000 local communities have adopted wetland protection regulations in these states. A larger number of other communities have adopted land-use regulations for wetland areas pursuant to coastal-zone or flood-plain regulatory efforts, or broader land-use zoning or subdivisions control programs.

As noted earlier, local adoption of wetland regulations has been encouraged not only by state wetland acts but also by the requirements of the National Flood Insurance Program, which requires local regulation of the 100-year frequency flood plain area in order to qualify for federally subsidized flood insurance. More than 14,000 communities have adopted or indicated an intent to adopt flood-plain regulations to qualify for this program. Other federal incentives to wetland protection by localities include the Coastal Zone Act of 1972 and the Corps of Engineers’ 404 permit requirements.

Strong local as well as state and federal incentives exist for regulation of wetland areas. These include the achievement of common land- and water-use planning objectives, such as reasonable minimization of natural hazards, provision for open space and recreation areas, prevention of drainage and flood problems, prevention of septic tanks in unsuitable areas, allocation of lands throughout a community to their most appropriate uses, and protection of water supplies. Rarely are sufficient funds available at the local level to purchase more than a small portion of community wetlands to serve these objectives. In addition, it is often politically unacceptable to remove totally large acreages of land from the tax roles and all productive uses. For this reason, several types of land-use regulation are commonly adopted to restrict land uses with the most severe impact upon wetlands while permitting continued private use of lands.

Regulatory Approaches and Techniques

The two main regulatory approaches applied to wetland areas are (1) complete prohibition of all fills, dredging, and structural uses, and (2) application of performance standards to uses that reduce flood losses, reduce impact upon wildlife, and serve a wide range of other objectives. The second approach is more common, although a considerable number of communities have adopted restrictive controls.

Explicit wetland protection provisions are typically incorporated in several types of local regulations:

1. Local wetland zoning regulations. These most common kinds of wetland protection are adopted as a primary or overlay zone within a broader comprehensive zoning ordinance or,
alternatively, as a separate wetland ordinance. The regulations may be based upon a special wetland regulatory statute, coastal zone, shoreland, or scenic and wild river statute, or broader zoning authority. Zoning regulations consist of a map showing wetland boundaries and a text listing prohibited and permitted uses and establishing general standards for special permit uses. Usually a zoning board of adjustment, planning board, or special board (e.g., a conservation commission) is authorized to evaluate applications for special permits within wetland areas.

2. Special wetland protection bylaws or ordinances. These may be adopted pursuant to special wetland protection statutes (e.g., a Massachusetts statute authorizes local units of government to regulate directly or comment upon wetland uses), statutes authorizing local control of grading and filling, tree cutting, and other activities, or to home rule powers. Typically, they contain a text setting forth prohibited, permitted, and special permit uses. Wetlands may be defined by description or with a map reference.

In addition to these two principal types of wetland regulations, control of wetland development may be achieved through several other types of special and general ordinances and bylaws. Rarely do any of these measures include specific provisions for consideration of visual-cultural or heritage values.

Critical Court Cases
What is most interesting and significant in the implementation of local government wetland regulation is a number of court cases that have generated from disputes about appropriate decision-making by local units of government. These court cases can be generalized into two distinct directions on the basis of the judges' findings.

One direction is an environmentally conservative trend of courts to find in wetland regulation cases landowners who were deprived of their property rights by local governmental bodies when they tried to restrict their uses of the wetlands. Such was the basic trend in the cases of Turnpike Realty Co. v. Town of Dedham forty and MacGibbon v. Board of Appeals of Duxbury in Massachusetts and in State of Maine v. R. B. Johnson. In these cases, the court tended to diminish the importance of the natural functions of wetlands; it stressed individual property rights of wetlands owners or questioned procedural practices of local wetland regulation bodies in their restrictive actions.

On the other hand are the environmentally liberal cases that advance the doctrine of public trust applied to wetland areas: That is, certain environments like wetlands, beaches, shorelands, and river bottoms either have certain publicly held values and functions and/or the state holds title to certain of these areas or subareas under former precedent. These cases are characterized by Muench v. Public Service Commission, Just v. Marinette County, and, recently, State v. Ashmore. Just v. Marinette County in Wisconsin is the most interesting of the three in its articulation of the public-trust doctrine. First, the court states the context for the case and notes the changing sense of value of wetlands in general.

This case causes us to re-examine the concepts of public benefit in contrast to public harm and rescipe of an owner's right to use his property. In the instant case we have a restriction on the use of a citizen's property, not to secure a benefit from the public, but to prevent a harm from the change in the natural character of the citizen's property. . . . What makes this case different from most condemnation or police power zoning cases is the interrelationship of the wetlands, the swamps and the natural environment of shorelands to the purity of the water and to such natural resources as navigation, fishing, and scenic beauty. Swamps and wetlands were once considered wasteland, undesirable, and not picturesque; but as the people became more sophisticated, an appreciation was acquired that swamps and wetlands serve a vital role in nature, are part of the balance of nature and are essential to the purity of the water in our lakes and streams. Swamps and wetlands are a necessary part of the ecological creation and now, even to the uninitiated, possess their own beauty in nature.

Next, the court states what the owners rights are and what is and is not a reasonable use of the area in question:

An owner of land has no absolute and unlimited right to change the essential natural character of his
land so as to use it for a purpose for which it was unsuited in its natural state and which injures the rights of others.

The exercise of the police power in zoning must be reasonable and we think it is not an unreasonable exercise of that power to prevent harm to public right by limiting the use of private property to its natural use.47

The changing of wetlands and swamps to the damage of the general public by upsetting the natural environment and the natural relationship is not a reasonable use of that land which is protected from police power regulation.48

The court acknowledges the precedence of its decision, but it presents a balancing test to weigh the interests in any given situation.

We realize no case in Wisconsin has yet dealt with shoreland regulations and there are several cases in other states which seem to hold such regulations unconstitutional; but nothing this court has said or held in prior cases indicates that destroying the natural character of a swamp or a wetland so as to make that location available for human habitation is a reasonable use of that land when the new use, although of a more economical value to the owner, causes a harm to the general public.49

The balancing test is to weigh the magnitude of the personal economic loss to the particular landowner against the magnitude of the harm to the general public, which is usually the infringement or elimination of the natural functions and character of the wetland. Finally, the court cites the case of Muench v. Public Service Commission50 in Wisconsin in articulating the public trust mandate for the state and including protection of recreation and scenic beauty in that mandate.

The active public trust duty of the State of Wisconsin in respect to navigable waters requires the state not only promote navigation but also protect those waters for fishing, recreation and scenic beauty.51

Policy Implications

From the author's perspective, it seems inevitable that the liberal environmental view of decision-making concerning the fate of U.S. wetlands will prevail in certain states and gradually spread to others. Just as zoning upheld merely on aesthetic considerations has gradually been accepted in some jurisdictions, so will aesthetic considerations in wetland management. This can be seen in the differences in the breadth and scope of values that were not recognized in the early Massachusetts wetlands statute in contrast to the newer New York State statute. And it can be seen in the difference between the earlier Corps of Engineers' Section 404 wetland-permit considerations and the new EPA guideline regulations for Section 404. It also can be seen to some degree in the court decisions just described. Of course there should be procedural safeguards against highly discretionary or arbitrary decision-making that may harm personal property rights. However, as we come to know more about the natural functions and values of wetlands to the individual property owner and the public, the public trust must be given its proper consideration and weight.

Notes

2. Ibid.
7. Ibid.
8. Ibid.
9. Ibid.
10. Ibid.
11. Ibid., p. 54235.
12. Coastal Wetlands, Delaware Code, Title 7, Section 6602.
13. Coastal Wetlands, Maryland Annotated Code, Title 9, Section 9-102.
15. Coastal Wetlands, Rhode Island General Laws, Title 46, Chap. 23, Section 1.
18. Navigable Waters, Shorelands, Vermont Statutes Annotated, Title 10, Section 1421.
20. Coastal Areas, Alabama Code Title 9, Chap. 7, Section 2.
21. Environmental Quality Act, Arkansas Statutes Annotated, Chap. 9, Section 1401.
22. Comprehensive Critical Areas Act, Minnesota Statutes Annotated, Section 1166.02.
25. Coastal Wetlands, Rhode Island General Laws, Title 46, Chap. 23, Section 1.
26. Coastal Act, Texas Statutes Annotated, Article 33.001.
27. Shorelands, Maine Revised Statutes, Title 12, Section 4811.
29. Shoreline Areas, Revised Code of Washington Annotated, Title 90.58.
30. Open Space, Pennsylvania Statutes Annotated, Title 16, Section 11941.
31. Large-Scale Development Site Review Act, Vermont Statutes Annotated, Title 10, Sections 6001-89.
32. Coastal Zone, Delaware Code, Title 7, Section 7004.
33. Coastal Wetlands, Mississippi Code Annotated 49.27-1.
34. Coastal Areas, New Jersey Statutes Annotated, Title 13, Chap. 19.
36. Coastal Wetlands, Rhode Island General Laws, Sections 2-1-13 et. seq., and Coastal Areas, Sections 46-23-1 to 46-23-16.
37. Comprehensive Critical Areas Act, Minnesota Statutes Annotated, Section 1166.02.
38. State Critical Area, Alabama Code, Title 9, Chap. 7, Section 1.
44. Just v. Marinette County, 56 Wis. 2d 7 201 N.W. 2nd 761, 3 ELR 20167 (1972).
46. Just v. Marinette County, 201 N.W. 2nd 761 at 10.
47. Ibid, at 11, 12.
48. Ibid., at 13.
49. Ibid.

References

