

THE FUTURE OF WETLANDS

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Assessing Visual-Cultural Values

Edited by

RICHARD C. SMARDON

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This book is dedicated to my mother, whose spirit lives on.

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Foreword

While touring the Georgia lowlands recently, I was stunned to see large advertisements posted by local real estate offices extolling the values and virtues of Marshfront Properties. Nothing is more honest than the marketplace, and here it was announcing that twenty years of frustrating effort had paid off. We had convinced people that wetlands were beautiful as well as biologically productive, at least here in the coastal plain. We had convinced them so well that they were willing to pay premium prices for land that bordered the salt marsh. Our "ugly duckling" had grown up to be a beautiful goose that was laying golden eggs.

My signal that the turning point had come came from the U.S. Army Corps of Engineers, who had inherited the nation's wetland protection program in 1972 by a strange bit of political maneuvering. The Washington brass, having made a behind-the-scenes decision about wetlands that would send a shock wave across the country, invited me to come and lecture the generals and high civilian staff on the values of wetlands, specifically including any "resources of the mind" that the strange landscape might harbor. By "resources of the mind" the Corps meant aesthetic, heritage, cultural, spiritual, and psychological values. I accepted this intriguing assignment knowing that something quite unusual was about to happen. It did. Less than a week after my lecture in April 1976, the Chief of Civil Engineers announced that the Corps was denying permits for units of a mammoth Deltona Project in Florida, which would have eventually converted 20,000 acres of mangrove wetlands into lots and canals. The Corps had spent eight months searching its institutional soul, had rejected the testimony of the greatest collection of high-powered experts ever brought into a wetlands case, had overridden the governor of Florida, and declared itself ready to provide a reasonable measure of protection for all wetlands within its authority. As brought out in the pages that follow, the Corps subsequently included aesthetic and amenity values as properties of wetlands that it could legitimately protect.

Surveys of public opinion show that wetland appreciation is high among the public. For example, a statewide survey of Floridians, taken in the fall of 1981, showed that 60 percent of the populace knew that wetlands purified the water that flows through them. In another example, a survey by the Philadelphia District of the

Corps found that 90 percent of the inhabitants of the Atlantic City, N.J., area believed that wetlands should be protected, even if economic growth is adversely affected. This is a much higher percentage than I would expect to find across the country. I believe that nationally one would find about two out of three people supporting protection for the 3 percent of our national landscape that is wetland. Twenty years ago I would have hazarded a guess that less than one out of ten would be supportive.

I am firmly convinced that public support for wetlands conservation will remain high permanently. Only the truly mean-spirited now talk about wetlands being wastelands. This attitude is a holdover from olden times when people needed to believe there were special places on earth where evil was bred. If you needed to believe this, what better candidate than an impenetrable and mysterious swamp. In this century wetlands have been more the victims of technological bravado than superstitious belief. Places that were neither land nor water challenged our inventiveness. We couldn't drive across them nor boat through them with any ease. We couldn't easily farm them nor build upon them. The solution was to convert them to either land or water or both by draining, diking, or filling. But now the mood has changed. Wetlands are recognized as among the most important resources we have.

Also contributing to the future security of wetlands is a mellowing of the technological imperative. Events of the last ten years have shown us that there are, and should be, limits on technology. As a nation we are just beginning to practice restraint, to not do some things we are technologically capable of doing. Rejecting massive wetland conversion projects as a restraint on technology is becoming a reality.

Many of the authors of this volume were already deeply into analysis of wetlands-connected "resources of the mind" and, in fact, had contributed strongly to the foundation of legitimacy by which wetlands are now being protected. It is heartening to see that the research is being continued in academies and agencies around the globe and that some of the best is reported here. Although 40 percent of the nation's original inventory of wetlands has been obliterated, we are having good success in conserving the remaining 60 percent (about 70 to 75 million acres). While this volume of papers shows excellent progress, much important work remains to be done in the analysis of visual-cultural values in support of the conservation and land use actions of the future.

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Introduction

The purpose of this book is to present the reader with an array of information and techniques about the assessment of the visual-cultural values of wetlands. Visual-cultural values include the enjoyment derived from wetlands by people in terms of scenery, recreation, and nature education. In recent years wetlands have become more valued for amenity resources as well as their ecological functions.

This book is divided into five parts. Part I is an introduction to policy and visual-cultural assessment of wetlands in the United States and Britain. It contains overviews of state-of-the-art techniques for assessing visual, recreational, and educational values of wetlands.

Part II examines how people actually perceive visual-cultural aspects of wetlands. These studies were done in Louisiana, Massachusetts, and West Virginia and illustrate methods of perceptual visual-cultural assessments at a statewide scale, a town scale, and an individual wetland, respectively. This collective work by Michael S. Lee, James F. Palmer, and William E. Hammitt shows which variables are important for assessing visual-cultural values.

Part III presents chapters by Molly Mooney and Rowan A. Rowntree on field-expedient methods for describing the physical landscape attributes of wetlands and their surroundings. These two approaches were developed as part of wetland studies for New York State freshwater wetlands along Lake Ontario and a California salt marsh, respectively.

Part IV contains two chapters on wetland evaluation. One includes a method developed by Smardon and Fabos of valuation of visual-cultural attributes of wetlands that use both perceptual studies, such as those in Part II, and physical landscape description techniques, such as those in Part III. The valuation methodology developed for northeastern wetlands includes both nonmonetary and monetary valuation techniques. This section also includes a summary of visual impact assessment methods by Smardon and specific techniques for assessing visual impact of introduced activities that would change the visual character of wetlands.

Part V suggests a framework for decision-making to determine which technique or group of techniques are needed and feasible for practical application in different decision-making contexts.

PART I

Overview
