

## Preface

This book examines the history and details of relations between the United States and its natural resources. The world is currently faced with monumental challenges, many of which focus on water and the land resource to which it is related. These challenges include providing sufficient water for both a healthy environment and a healthy population, and to serve local and worldwide capacities to buffer energy, nutrients, wastes, and gases so that the Earth can continue to be a viable place for life. Wild spaces need to be preserved not just so that we can enjoy them, but so they can fulfill their functions in the Earth's environment. Important issues include the necessity to define on a broad scale the term "sustainability" and "carrying capacity," and, on a more limited scale, terms such as "wetlands," "healthy," and even "conservation" itself. Complicating decisions about our future is the fact that communities at all scales need to be prepared for global change and for the scientific and social information base necessary to understand the situation. First and foremost, must deal with the issue of population growth. That is necessary in order to begin to manage the concept of sustainability; to achieve our conservation goals. As a nation that uses more than its per capita share of the Earth's resources, United States citizens need to comprehend how we got to where we are, the nature of our limitations, and what the opportunities are to improve our lot. The purpose of this book is to prepare the reader for understanding and working as a professional or as a citizen for conservation, for sustainability.

The phrase "water and related land resources" came into use with the report of the Senate Select Committee on Water Resources in 1961. The phrase is a focal point for the earlier use of the term "soil and water conservation" during the first half of the 20<sup>th</sup> Century. Those two phrases are forever linked in technology and literature, the natural resource professions, and in our culture. For example, as one of the earliest courses in the Department of Forestry at the SUNY College of Environmental Science and Forestry, *Soil and Water Conservation* provided practical information on soil erosion and erosion control at a time when soil conservation was cutting edge material and in its infancy. Over the years, the course evolved into one that now focuses on political science and policy. Culturally, the 1930s film "The River" emotionally linked the Mississippi River and the watershed that provided the runoff, floods, and nutrients of the valuable flood plain lands. The patriotic tone and wonderful music by Virgil Thompson built a foundation for the war years as well as for the stirrings of what was to become the environmental movement.

During the Twentieth Century, soil and water resources were increasingly tied together in legislation and management. The linkage commenced with the 1911 Weeks Forest Purchase Act, borne of deforestation and consequent increased runoff, erosion, sedimentation, and floods. It continued with the 1936 Omnibus Flood Control Act that linked the fledgling land-managing Soil Conservation Service with the ancient river-managing engineering of the Army Corps of Engineers; and the 1954 Watershed Protection and Flood Prevention Act that "brought responsibility home" to all the stakeholders in land and water management. At the peak of the populist environmental ground swell in the 1960s and 1970s, the 1972 Water Pollution Control Amendments ("Clean Water Act") were enacted. This specifically linked water quality to land use in §208 entitled "Areawide Waste Treatment Management," and introduced the vitally important arena of nonpoint source pollution control. Currently, this is where the action in watershed management is, where the conflicts, the challenges, the opportunities, and the money are; where "the rubber meets the road." And that is likely to be true for a long time. The demand for competent professionals, conservation-minded land operators, and informed citizens is and will continue to be the most pressing need underlying successful sustainability as we extend human civilization into the 21<sup>st</sup> Century.

The basic organization of this volume remains the same. We have added suggested projects, critical thinking, and study questions at the end of each chapter. The former chapter on organizations has been divided into two separate chapters, one on the national organizations, and one on regional, state, and local organizations. The previous edition's chapter on *Policy, Planning and Pollution* has also been divided: the first entitled *Policy, Planning, and Partnerships*, and the second entitled *Pollution, Programs, and Permits*. Explanation is given at the start of each chapter. And, of course, we have brought the status of conservation up to date with the myriad of changes that have occurred since the 1987 publication of the Second Edition; these include innovations – and retrogressions – at all levels of government programs, policy, and pollution control, along with attendant legislation and court decisions. There has been a dramatic growth in the literature, including new and re-cast newsletters, magazines, journals, and text and trade books. The availability of information – including current legislation, rule making and policy change proposals, and administrative actions – on the internet is mind boggling. Websites for many if not all of the estimated 2,000 watershed initiatives (associations, committees, councils, etc.) are also available and undergo frequent change and updating. Since 1987, there have also been major developments within the United States in Native American water rights issues, substantial changes in many federal organizations, and a noticeable shift away from voluntary pollution control programs to mandatory permit processes that play an important role that is intimately related to the book's title, "water and related land resources." All of these topics are updated in the current edition.

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