

AN INSTITUTIONAL READER

ARE WE STILL ON THE RIGHT ROAD

Five years is a lot.
Twenty years is the horizon to most people.
Fifty Years is antiquity."

While History tells that the Water Resources Of The World are finite, it also tells that not more than 125 years ago Louis Pasteur First Established The Germ Theory of Disease And Changed The Nature of Water Resources Forever.

The beginnings of modern microbiology and the fight against epidemics and diseases are still prevalent. Less than 150 years ago the theory that living organisms arise from nonliving materials is known as the theory of Spontaneous Generation. Continued until the 19th century, The Germ Theory showed that diseases are caused by the invasion of microorganisms into the body.

This thought is referenced in the history of Winston S Churchill who proposed,

"No one can understand history without continuously relating to the long periods which are constantly mentioned to the experience of our short lives."

A Brief History

In the last quarter of the 19th century Pasteur introduced the Nation into the Germ Theory of Disease. By 1900 the United States looked to Europe for the new information and by 1912 the US Public Health Service was building the first legal structure to examine water, waste, sewage, and sanitation into the future of America (1913-1917).

Dr. Wade Hampton Frost laid the basis for the control of water pollution:

Streeter and Phelps defined the Oxygen Sag Equation:

Theriault, Hoskins, Purdy and Hommon came right behind.

Basin Planning came next. Major National Reports in 1939; the Ohio River report in 1943 of the Public Health and the Army Corps of Engineers

became the classic study. A 1973 study of national water resources problems was initiated by Ted Schad of the American Society of Civil Engineers at a National Water Resources Conference .

The Federal Water Pollution Control Program was called the "Clean Water Act". First named in Public Law 485, 80th Congress it was then amended in 1977 in response to the "mid-course corrections" of a Study Commission. The Committee on Water Resources Research of the Federal Council for Science and Technology lead to a ten - year program of Water Resources Research.

The Land Grant Colleges facilitated and encouraged social science research (politics, economics, law, sociology) along with the life, physical sciences and engineering in support of joint projects.

Major Issues provided guidance into the "New Century" by an assessment of frustrating issues like Water Pollution Control. Contrary to the teachings of the 1980's, "government is the problem; not the solution" The National Water Pollution Control Program stood as a positive counterpoint.

Control of waterborne disease and the growing concern for safeguarding water quality for all human purposes and living things stood high among any of the accomplishments of modern societies.

Americans need to understand that there is no end to the process in which they have now been engaged for a half-century since the 1948 Act. At some point the cost of the still current (and physically and biologically impossible) policies of eliminating the discharge of pollutants to the waters of the nation need to be confronted in the light of other challenges that must be met.

'How clean is clean' needs continuous determination, and it is not a technical question. American culture, social equity, and the meaning of the exponential curve of disturbance of the environment due to growth in population and income during the next quarter century must be confronted.

During the 1970's and 1980's the Federal Construction Grants program was a major source of funds.

These projects constituted a significant contribution to the nation's water infrastructure. They included sewage treatment plants, pumping stations, collection and intercept sewers, rehabilitation of sewage systems and the control of combined sewer overflows.

With the 1987 amendments to the Clean Water Act, Congress established 1990 as the last year that construction grants funding would be appropriated calling for revolving loan funds in each state.

In Washington, February 15, 2001 the chairman of the Subcommittee on Fisheries, Wildlife and Water, introduced landmark legislation to ensure the environmental and financial sustainability of the Nation's water programs.. These were Safe Drinking Water; Protecting the Homeland;; Ecosystems and Watershed Planning and Management.

Part of watershed history has been forgotten. During the six decades of experimentation and trial and error by the engineers, scientists and medical personnel of the United States Public Health Service. Non-Point Source Pollution and No New Supplies Except Reuse remain of concern.

A Review

Having reviewed some basic themes in the pre 1980 history of water quality and drinking water protection and touched on the history of some current stumbling blocks to progress we now turn to some opportunities that are less clear and more ambiguous.

As forests, the land, and national parks become important to America, waters and watersheds were high on the priority agenda. Theodore Roosevelt, water development, dams and Natural Resources were in vogue. The Nation was in a development period.

By the seventh decade water and land resource development was evolving. By 1969 President Nixon began to turn resource management toward the National Environmental Policy Act. For twenty years, the road toward water pollution grew.

By 1990, it was clear that the planetary environment had come of age. As the main theme came into focus it became evident that the road was getting too large for management. The main thought that seemed appropriate was to find a device that could provide management to the system.

The keystone rested on two foundations, both from the founding fathers. The first was The Federal System; the second was the fifty States and their responsibilities. The task before the Nation was to provide a rational division that was required. Interagency Committees and the Ten EPA Regions were founded as part of that system.

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AN INSTITUTIONAL READER

on

Regional State-Federal-Local Inter Agency Coordination
An Institutional Design To Strengthen Water Resources
Management In The United States

This Reader Is Dedicated to the Commissioners of the
Western Water Policy Review Advisory Commission
as an
Advisory
To Assist Them To Meet A Challenge
Defined By President Dwight D Eisenhower

"Because the complexity of modern life intensifies the need in a federal form of government for the fullest cooperation and coordination of activities between the levels of government, and because population growth and scientific developments portend an increasingly complex society in future years, it is essential...to give continuing attention to intergovernmental problems."

*U.S. Advisory Commission on Intergovernmental Relations. Section 2,
established in 1959 by the Congress, acting on the recommendations of the
Commission and the President*

ON JANUARY 5, 2005, I JOINED MY 90TH YEAR BIRTHDAY PARTY

CONSERVATION IN THE UNITED STATES

I have determined that "Conservation In The United States" is Appropriate for a Documentary History. To the extent of my abilities I will be developing this in connection with related papers. Much that I may do will have been shared with Professor David J Allee,

General Editor of the History will be Frank E Smith. Five Volumes Constitute the Publication. Two are "Land and Water, 1492 to 1900 and from 1900 to 1970." They are closely related to the land. "Water Pollution" has had a shorter history and reflects a major Environmental problem. "Mineral Conservation" and "Outdoor Recreation" have increasing relevance.

The editors have had full responsible for the selection of their respective volumes.

Conservation in the United States has been a neglected subject in American History.

The definition of conservation is very broad and was first popularized by President Theodore Roosevelt. It was soon defined as the use of natural resources as the greatest good for the greatest number for the longest time.

This compilation is designed to present some of the essential documents in the development of United States conservation policy.

Conservationist doctrine emerged from government policy in two areas that were not often related until late in the nineteenth century-land and water. The disposal of the vast lands of the public domain was early a great issue.

Although Washington once promoted the idea of a canal to connect the Potomac and the Ohio Rivers, the question of federal development and control of rivers and floods did not receive national attention until the time of Jefferson.

In the first seventy-five years of our governments existence, attempts to control the two major resources, land and water, were not coordinated. After the Civil War, federal irrigation and forestry policy brought them closer together. In this compilation land and water are treated as two inextricably related subjects.

The issue of constitutionality of federal conservation and resource development programs was not settled directly by the process of constitutional amendment but by the long process of gradually evolving legislative and executive precedents and step-by-step decision's.

The contents of the *PREFACE WATER POLLUTION* was provided by Frank E Smith, author.

Stewart L Udall prepared INTRODUCTION "TOWARD A COLLECTIVE CONSCIENCE FOR CONSERVATION".

The Editors Note was provided by Leonard B Dworsky, Cornell University, Ithaca New York

"The nations lakes, rivers and streams have been our "beat" for over thirty years. Our first love was Lake Michigan. Later we became enamored with the Ohio, Gasconade and Potomac rivers. More recently we have lived in the Missouri and Columbia and river basins, and have befriended the Kaw and the Platte; the Clackamas and the Deschutes. Today we live on the heights above Cayuga Lake teaching a younger generation about these waters as well as the Hudson River and the Finger Lakes of New York State. Serving our country through the government has been an exciting experience. We invite others to try it"

As to the Environment--we are on our way to restoring our waters to conditions necessary for "quality" human existence. ... Although as a nation we have developed an awareness of the dangers of environmental pollution far too slowly, we are now gaining the momentum vital to reversing our course....The public must continue to have the will and desire to control pollution and to invest whatever is necessary to this end. We must also have strong and responsible political leadership on all levels.

We dedicate this book to our parents with love and gratitude for having exposed us early to the beauties fo nature.

PROLOGUE

The aim of This Reader is to propose a modern version of a well used, but forgotten, institutional design to strengthen cooperation among the many federal, state, local and Native American Governments as they pursue their water-related responsibilities under an ecosystem approach. The generic form used to define this institutional form is Interagency Committee.

Not too many years ago these responsibilities would have been characterized under the rubric of water and related land resources management. Today American society has added endangered species, biodiversity, sustainable development and a host of other matters that can only be defined under an ecosystem. A current definition widely recognized is that used in the Great Lakes by Canada and the United States. In brief, it is a system that reflects the interconnection of water, the atmosphere, the biological systems, and human social systems in the Great Lakes Basin.

In support of the institutional proposal we present, we have provided documentation that describes how the earlier interagency designs were formulated, the efforts made to improve them and the hopes and expectations of those involved for a means to strengthen inter-agency cooperation in a regional context.

From the Great Lakes International Joint Commission Science Advisory Board Ecosystem Committee we offer some advice.

"There is no one time solution to the problems in the Great Lakes Basin Ecosystem. The ecosystem approach will not lead us to action that will be the single best thing. Rather the ecosystem approach is a process that keeps identifying problems of various sorts and puts pressure on them so as to improve the situation. Gradually things will be better, which is all the success we as a society can reasonably expect. If society aims to do it right once for all, it will fail and then give up the whole enterprise."

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This Collection of papers grew out of a Canadian-United States interuniversity seminar that was held over a period of several years, assisted by the Donner Foundation with incremental support by participating universities and the Johnson Foundation.

No general treatment of management for the lakes or set of relevant papers has appeared since 1974 when "The Great Lakes of the United States-A Reader on Management Improvement Strategies" prepared by Cornell University for the Office Of Water Resources Reserarch Under the direction of Leonard B Dworsky, one of the contributors to this volume. But the 1978 Water Quality Agreement and and its implemenntation makes a new treatment of Great Lakes management timely..

The second Reader, "Perspectives on Ecosystem Management In The Great Lakes " was written and edited by Professor Lynton J Caldwell in 1988.

A third Reader was provided by Cornell University in conjenction with The State University of New York Sea Grant Program