



**NYS SEA GRANT PROGRAM REPORT
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PUBLIC IMAGES AND COASTAL ZONE MANAGEMENT

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PART TWO: TECHNICAL PROGRESS REPORT

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REPORT

By Andrew Collver

As originally planned this was to be an exploratory study to map out the social structure within which opinions are formed as well as the content of public opinion concerning the shore zone. It was to include (1) an investigation of opinion leaders and their views; (2) an analysis of the main dimensions of thought regarding the shore zone; (3) identification of the organizations and interest groups most concerned with the management and use of the shore zone; and (4) an opinion survey of representatives of these organizations and groups and also a sample survey of voters and taxpayers in the region.

Reports are being presented as follows, under the general heading of Public Images and Coastal Zone Management.

Part One. Practical Implications. In this, research findings are summarized and discussed with a view to their usefulness to leaders of the movement to improve the coastal zone management system. (*Separately published*)

Part Two. Technical Progress Report. This compares achievement during the year with plans laid out in the original proposal, and also provides an inventory of the "state of the art" as far as we have been able to ascertain it up to this point.

Part Three. Theoretical discussion. Written more for a sociological audience, this essay is intended to place the "Public Images" studies in the context of other sociological research and suggest what sociology and coastal zone management studies can contribute to one another.

Part Four. Working papers will include internal memoranda and pre-publication manuscripts.

1. "Public Consciousness, Social Behavior and the Environmental Crisis", by David Waring. (unpublished master's thesis).

2. Pretest of Questionnaire on "Public Opinion and Coastal Zone Management" dated 31 July 1973, by A. Collver.

The research reported here is of modest dimensions, for the grant budget provided stipends for only one month for the project director and two months for one research assistant. This was not as severe a limitation as it may seem, for additional work was carried out in connection with the principal investigator's teaching, research and service activities at the University.

David Woodrow, graduate student in sociology, was employed as research assistant June-July 1973, during which time he reviewed the literature on public opinion polling, with particular reference to environmental questions, collected data on NEWSDAY editorials about coastal issues 1947-73, bills introduced in the New York State Legislature relating to the Coastal Zone 1947-72, and minutes of the Nassau-Suffolk Regional Marine Resources Council 1967-73. Patricia Dwyer, who had just received her B.A. in sociology, worked with him on these projects for academic credit and research experience. She was the one primarily responsible for producing successive drafts of a public opinion questionnaire on coastal zone management. Jane Sosis, a senior in environmental studies, worked most of the year on a survey of public opinion concerning Port Jefferson Harbor, and also helped with the pretest of the coastal zone questionnaire. David Waring, graduate student in sociology, served as field supervisor of the Port Jefferson Survey and wrote his master's thesis from the data. Sibyl Mizzi and Ellen Kintz, graduate students in anthropology, spent some hours discussing methodological problems involved in discovering and describing systems of belief about the environment. Ms. Mizzi put some of our ideas to the test in follow-up interviews of people who had participated in a series of environmental planning games. Doris Williams, Environmental Information Service librarian, was a helpful provider of information. Her master's thesis on the role of the library in environmental education is another contribution to our family of projects.

Other contributors, too numerous to mention by name, were 25 members of the senior class in environmental studies, who carried out an interdisciplinary study of problems of coastal management as seen in and around Port Jefferson Harbor; and members of the junior and introductory courses in environmental studies who served as public opinion interviewers.

Each of these individuals had his or her own reasons for participating in the project, and by no means all of their work can be counted as directly contributing to the study of public opinion about the coastal zone. A bargain had to be made with each one to work on related but not completely overlapping subjects.

The original proposal grew out of a study of management of the Great South Bay, done by several undergraduates in 1971-72. This year, however, interest shifted more to the North Shore of Long Island and to Long Island Sound. There being no way to hire enough assistants or to persuade enough volunteers to complete a full-scale survey of public opinion regarding the Great South Bay, it was decided that it would be more appropriate to make use of such opportunities as were available for field work. The main event of the year thus turned out to be the Port Jefferson study.

In the original proposal, the first set of specific goals outlined is an investigation of opinion leader views. We have a variety of material of this type, and more of it is accumulating. From previous studies we have interviews (1971) of leaders involved in the Mount Sinai Harbor dredging controversy. In 1971-72, students on the Great South Bay project interviewed public officials, scientists and leaders of environmental groups. In the summer of 1973 we took notes on newspaper editorials, bills introduced in the New York State Legislature, and minutes of the Marine Resources Council. (The aims of the MRC coincide very well with ours: to provide a forum for representatives of scientific research programs, business, government and public interest groups to express their views on current coastal zone management issues.) We have a file of newspaper clippings on these topics beginning in 1971. A Sea Grant sponsored conference held in Albany February 20-21, 1973 brought together more than 200 people from all over the state to share their views on coastal zone management. There is no shortage of data on opinion leaders' views, for by definition they are people who make their views known to others. The current need is not for more data but for theory by which to organize the data.

The second aim was to formulate an empirically grounded conceptual model of beliefs, belief systems and policy positions represented in the statements of opinion leaders. It was hoped that we would be able to discover basic or key ideas that serve to organize people's thinking about the environment generally and the coastal environment in particular. This requires an imaginative analysis of written statements and it is impossible to set a timetable for satisfactory completion. One does not promise to deliver a set of bright ideas by a given deadline. Some insights have been obtained, but it is still not clear how or whether these insights will lead to a satisfactory conceptual system.

The third aim was to study the social structure in which shore zone management policy is to develop and operate. New data for this were collected in the Port Jefferson study to add

to information assembled for the Mt. Sinai and Great South Bay studies. We now refer to the relevant institutional structure as the "management system" and the campaign to bring about changes in the management system as the "reform movement." These two general structural concepts help to indicate what aspects of society are most relevant for our data collection and analysis.

Finally, we intend to make some progress in polling public opinion on a relatively new topic. Starting from the assumption that it is not possible to create the perfect questionnaire a priori by the sheer force of academic intellect, we plunged into the field and started interviewing. The questions asked at first had little if anything to do with sociological or ecological theory. The principal criterion for including a question was that someone said, "Maybe this would be a good question to ask," and not too many of his colleagues objected. Some experience had been gained from the Mount Sinai survey. The environmental studies senior class drew ideas from that questionnaire, added some of their own and did a small pilot survey in Port Jefferson in the fall semester 1972. By the following semester, members of the class were more clear on some of the issues they wanted to inquire about, and a new questionnaire was drawn up for the larger survey in March.

In the summer, after the Port Jefferson survey had been analyzed and theoretical concepts had had more time to mature, we devised a questionnaire that was different from its predecessors in quite fundamental ways. Beyond simply asking for people's opinions on current issues, the aim is to try to discover key organizing concepts that would allow us to predict people's views on a number of other issues as well.

In the course of the year, and especially near the end of the year, a general conceptual framework began to take shape. Hopefully it will serve to organize the data and provide clues to the most important research questions. As of October 1973 we have only partial overlap between the questions raised by the theory and the answers provided by the data. The following outline is meant to give an overview of the entire research program as it bears on several broad theoretical concepts or strategic assumptions.

Inventory of Research Related to Theoretical Concepts

1. THE IDEA OF A MANAGEMENT SYSTEM.

- a. The concept. The management system that regulates human behavior in the coastal zone consists of a complex and loosely integrated set of institutions. For

analysis these may be grouped into four types: informational, economic, political, and moral or valuational. Because of growing population pressures and changing technologies, these institutions are obsolescent in the sense that they are inadequate to protect coastal resources from the new pressures. The current campaign for coastal zone management is seen as a movement to update these institutions. Success of the movement will be measured in terms of the degree of protection of coastal resources that is achieved.

- b. Data needed. Case studies of management systems including evaluations of their effectiveness in relation to a given set of management goals.
- c. Other research. Other N.Y.S. Sea Grant Projects; R. Ford, "Coastal Zone Management of Lake Erie in the Western New York Region," and P. Dommermuth, "Power and Decision-Making: Case Studies in Setting Ecological Priorities." A current survey is provided by U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, Coastal Zone Management Task Force, Report on the Status of State Coastal Zone Management Programs (periodically updated). Any study of the progress of institutional improvements on Long Island can refer for baseline data to Nassau-Suffolk Regional Planning Board, The Status and Potential of the Marine Environment, Hauppauge, 1966.
- d. Own research. Walter Muench et. al., Political Ecology of the Wetlands: The Case of Mount Sinai Harbor, SUNY, Stony Brook, Interdisciplinary Program in Environmental Studies, Environmental Studies Series No. 1, 1972 (mimeo). Study of management systems of the Great South Bay, L.I., in 1971 by undergraduate students (unpub.). Environmental studies senior project, class of 1973, a study of management problems of Port Jefferson Harbor (report in preparation).

2. COASTAL ZONE MANAGEMENT REFORM AS A SOCIAL MOVEMENT

- a. The concept. The institutions involved in coastal management exist in people's minds and behavior. Consequently, change in the institutions occurs by means of a change in the thoughts and actions at first of a few key people acting as change agents and then by larger numbers of followers until a new socially accepted behavior pattern is established. The movement is broad-based, with demands for change

arising in many different sectors of the society, and with citizen groups playing a vital role. It can be analyzed with the same conceptual tools as are used to study the civil rights movement, women's liberation or the peace movement.

- b. Data needed. Historical data on the movement, collected and codified according to the categories of a theoretical model of social movements.
- c. Other research. Social movements are a popular subject for sociological research, but I have not discovered any on coastal zone management specifically. Closely related, however are Denton E. Morrison, Kenneth E. Hornback and W. Keith Warner, "The Environmental Movement: Some Preliminary Observations and Predictions," and Richard P. Gale, "From Sit-in to Hike-in: A Comparison of the Civil Rights and Environmental Movements," both published in William R. Burch, Jr., et al. (eds), Social Behavior, Natural Resources, and the Environment, New York: Harper & Row, 1972.
- d. Own research. The Mt. Sinai, Great South Bay and Port Jefferson studies cited previously all include some data on mobilization of public opinion and pressure for change, but these data were not collected explicitly for social movement analysis. Part One of the present report, entitled "Practical Implications," is presented in the order of stages of a social movement.

3. CLASSIFICATION OF PARTICIPANTS IN COASTAL ZONE MANAGEMENT

- a. Four categories of participants are seen, corresponding to the four types of institutions. They are 1) the information specialist, 2) those with commercial interests at stake in coastal resources, 3) government and political personnel, and 4) public interest representatives, whose primary interest is in promoting or upholding certain values.
- b. Data needed. Data should be obtained on images of the coastal zone from representative samples of people from each of these four groups. The hypothesis is that there will be more agreement on the issues within each of the groups than between groups.
- c. Other research. There has been no systematic survey of all four of these groups taken with a view to comparing them as indicated.

- d. Own research. We probably have enough data from various sources to attempt a comparison of the views of the different groups. This would be only a preliminary comparison, which would have to be tested with a questionnaire survey. In designing the questionnaire, we would 1) construct a theoretical or ideal type model of the typical representative of each of the four groups. The model would be based on verstehen sociology, which consists in thinking, "If I were in his shoes, what would I do?" and on reading of statements made by people believed to be strongly identified with one or another of the four categories. 2) Next, we would formulate extreme statements that might be made by the "pure politician" or the "pure idealist." 3) Finally, we would ask sample representatives of each group to respond to the extreme statements on a scale ranging from "strongly agree" to "strongly disagree." The purpose of such a study would demonstrate whether or not the basic interests and habitual thought and behavior patterns required for active participation in one of the four groups tend to influence people's views on coastal zone management.

4. ROLE OF THE GENERAL PUBLIC

- a. The concept. There is a general public comprised of residents, taxpayers, voters, consumers, who have at least some degree of potential interest in the outcome of coastal zone issues, and who can have important influence on the conduct of the more active participants. Actives in the four groups discussed above may be something like 5 percent of the population, and the remaining 95 percent are the general public. Fortunes of the inner 5 percent rise and fall with the tides of public opinion. Although in many ways it is more interesting and convenient to study the leaders directly, we also need to understand the forces working on them from the general public.
- b. Data needed. Time series of comparable public opinion data on coastal zone and related issues.
- c. Other studies. There is a growing literature on public opinion on the environment from the national polls, but comparable data on specific coastal zone questions are hard to come by. Reviews and comparisons appear in Public Opinion Quarterly.
- d. Own research. A survey of public opinion in the Middle Island area of Suffolk County, Long Island, in 1971 obtained people's views on urbanization and popula-

tion increase in the area, but did not touch on coastal zone issues explicitly. The work is reported in an unpublished master's thesis, Resistance to Urban Encroachment at the Metropolitan Fringe, by Andrea Owens Arth, Stony Brook 1972. Two surveys of coastal zone issues with a local focus were made at Mt. Sinai (reported in Political Ecology of the Wetlands) and at Port Jefferson (partially reported in David Waring, Public Consciousness, Social Behavior and the Environmental Crisis, unpublished master's thesis, Stony Brook, 1973). A questionnaire for a wider regional sampling of public opinion on coastal zone management questions has been pretested.

5. MOBILIZING PUBLIC OPINION.

- a. The concept. Certain people, because of past experiences and present location in the social structure, are more likely than others to become involved in the movement for reform of the coastal zone management system; and certain events, circumstances or appeals are more likely than others to move people to participate. Effectiveness of mobilization depends not only on recruitment of participants but on organizational structure provided for them. It should be possible to formulate a useful theoretical model of the determinants of environmental activism and of the effectiveness of different organizational structures as channels for citizen participation.
- b. Data needed. Survey data on differential participation rates by socio-economic status, distance from the point of impact of a pending decision, etc. Also evaluations of experiments in techniques of citizen mobilization and case studies of environmental movement organizations.
- c. Other research. A recent review of available information on environmental groups appears as "The Citizen's Role in Environmental Improvement," in Environmental Quality, the fourth annual report of the Council on Environmental Quality, Washington, D.C., U.S. Govt. Printing Office, 1973. Some very interesting experimental or quasi-experimental programs in citizen education and mobilization have been conducted. One example is the Susquehanna Study reported in Thomas E. Borton et. al., The Susquehanna Communication-Participation Study,

Selected Approaches to Public Involvement in Water Resources Planning, distributed by National Technical Information Service, Springfield, Va. 22151 as document no. AD717023. The Regional Plan Association in 1973 conducted a massive campaign, "Choices for '76," with a printed book, a series of television broadcasts, neighborhood discussion groups, and audience feedback by questionnaires. The New England River Basins Commission, as part of its Long Island Sound Regional Study, is seeking to involve citizens in the planning process. As the number of such endeavors grows, there is a need for a systematic comparative evaluation of their methods and results.

- d. Own research. The Ford-Funded Applied Ecology Project, carried out in association with Professors Lawrence Slobodkin and John Gagnon, mentioned in Part One of this report, was a quasi-experiment in sharpening people's images of the future, hopefully with the result that they will become more active in trying to change the shape of the future. Some students made a survey of environmental groups and coordination between them on Long Island in 1971.

6. CORRESPONDENCE BETWEEN VIEWS OF ACTIVES AND THE GENERAL PUBLIC

- a. Ideally, in an open society with free flow of information and free access to the channels of participation, there should be fairly close agreement between the views of the general public and what is being said by those more active in the central arena of controversy. The reason for this is that, if we think of the general public as spectators to the controversy, it seems that if members of the public feel that their own interests are being adequately represented in the central arena they will not feel a strong need to become involved. They will be in the position of saying, "I don't believe I can add anything to what has been said." But if they find that their interests are not being adequately represented, they will take steps to get involved themselves or send representatives. If this is indeed the situation, then we should be able to obtain a fairly accurate idea of public opinion on salient issues by reading the newspapers, attending public hearings, etc. That is to say, public

expressions of opinion will generally agree, in their political implications, with the opinions that would be obtained on a confidential opinion poll.

- b. Data needed. Analysis of surveys comparing the views of actives with inactives on issues.
- c. Other research. We are not aware of any.
- d. Own research. On the Middle Island Survey, the questionnaire confirmed what we had concluded from an examination of public statements about land use issues in the region. We have yet to work out fully the rationale of why this should be so, and to try to identify the conditions under which the correspondence holds and those under which it breaks down. The notion can be further tested with the Mt. Sinai and Port Jefferson survey data.

7. SITUATIONAL DETERMINANTS OF PUBLIC OPINION

- a. The concept. People's views on coastal zone management issues are in part determined by their location in the social structure. Major differentiating characteristics include socio-economic status (education, income, occupation); basic economic interests; whether places of work and residence are near the coast or far from it; interest in outdoor recreation; membership in groups that have formulated positions on the issues; and geographic distance from a particular site concerning which a decision is to be made.
- b. Data needed. Survey data on opinions along with data on the differentiating characteristics mentioned above.
- c. Other research. Polls have been taken and analyzed for the effects of some of these characteristics.
- d. Own research. Quite good evidence was obtained on the effects of socio-economic status, distance and group memberships on opinions in Mt. Sinai and Port Jefferson. Reported in David L. Waring, Public Consciousness, Social Behavior and the Environmental Crisis.

8. FUNDAMENTAL ISSUES

- a. The concept. There are relatively few basic issues in any field of public policy, and coastal zone management is no exception. It is a methodological problem to try to discover and measure basic ideas from which opinions on a variety of specific questions are derived.
- b. Data needed. Correlation analyses of large numbers of questions to select those that best represent clusters of related questions. It is largely a trial-and-error process in the beginning.
- c. Other research. Surveys we have seen so far seem not to be developed with the methodological sophistication called for.
- d. Own research. Analysis of results from the surveys has led to elimination of many questions and sharpening of others. We are now much better prepared for questionnaire construction than we were a year ago. Still, we are far from understanding the basic dimensions of environmental images.

9. GENERAL BELIEF SYSTEMS

- a. The concept. Ordinarily we expect to find beliefs on one subject associated with beliefs on other topics. Certain world views or philosophies carry principles from which conclusions may be deduced about many subjects. Our evidence so far seems to indicate that the established religious, political and economic philosophies such as Marxism, Catholicism, etc., do not indoctrinate their followers with any particular viewpoint toward the natural environment. That is to say, the environmental movement is non-partisan and not associated with any previous movement or body of beliefs. It emerged pretty much as an apple-pie-and-motherhood kind of cause. As some of the costs of environmental protection become more apparent, and as leading spokesmen for religious groups and political parties have more time to formulate positions, we may begin to see more association between environmental beliefs and established belief systems. Meanwhile, the movement seems to be developing quite autonomously, neither offending nor exceptionally favoring the interests of any of the major political and religious groups.

- b. Data needed. Surveys should include information on respondents' religion, philosophical outlook, ethnic identification and political persuasion in order to permit a search for systematic differences between these groups on coastal management issues. Also needed are observations that could reveal the emergence of new belief systems not tied to older traditions.
- c. Other research. Very little on this had been found in the literature, most of it preliminary and speculative, not based on empirical data.
- d. Own research. Analysis of surveys has failed to show relations between environmental and other beliefs. Why should this be? We plan to use open-ended questions, asking people to describe their system of beliefs in their own words.

PUBLIC CONSCIOUSNESS, SOCIAL BEHAVIOR AND THE
ENVIRONMENTAL CRISIS

by David L. Waring

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ABSTRACT

Involvement in local environmental policy issues was found to be positively associated with physical proximity, socio-economic status, awareness of the issues and concern for environmental problems. A survey of 255 residents in the vicinity of Port Jefferson, N.Y. showed that 44 percent had discussed harbor problems with neighbors, 31 percent had attended meetings where harbor problems were discussed, and 13 percent had made complaints about industrial hazards or pollution in the area. The strongest determinant of involvement in the activities was place of residence. Other proximity variables-- frequent driving by the harbor front and use of the harbor for boating-- also accounted for involvement. Participation in discussion and meetings was positively associated with income and education and with degree of communication skill required by occupation. Both awareness of major construction plans for the harbor and concern for the environmental problems in the harbor area were positively associated with proximity and social status. Awareness and concern were also positively associated with involvement in the issues, but they did not behave statistically as intermediate variables between proximity or social status and involvement. Thus a hypothesis that proximity leads to awareness and concern which in turn lead to involvement is unsupported.