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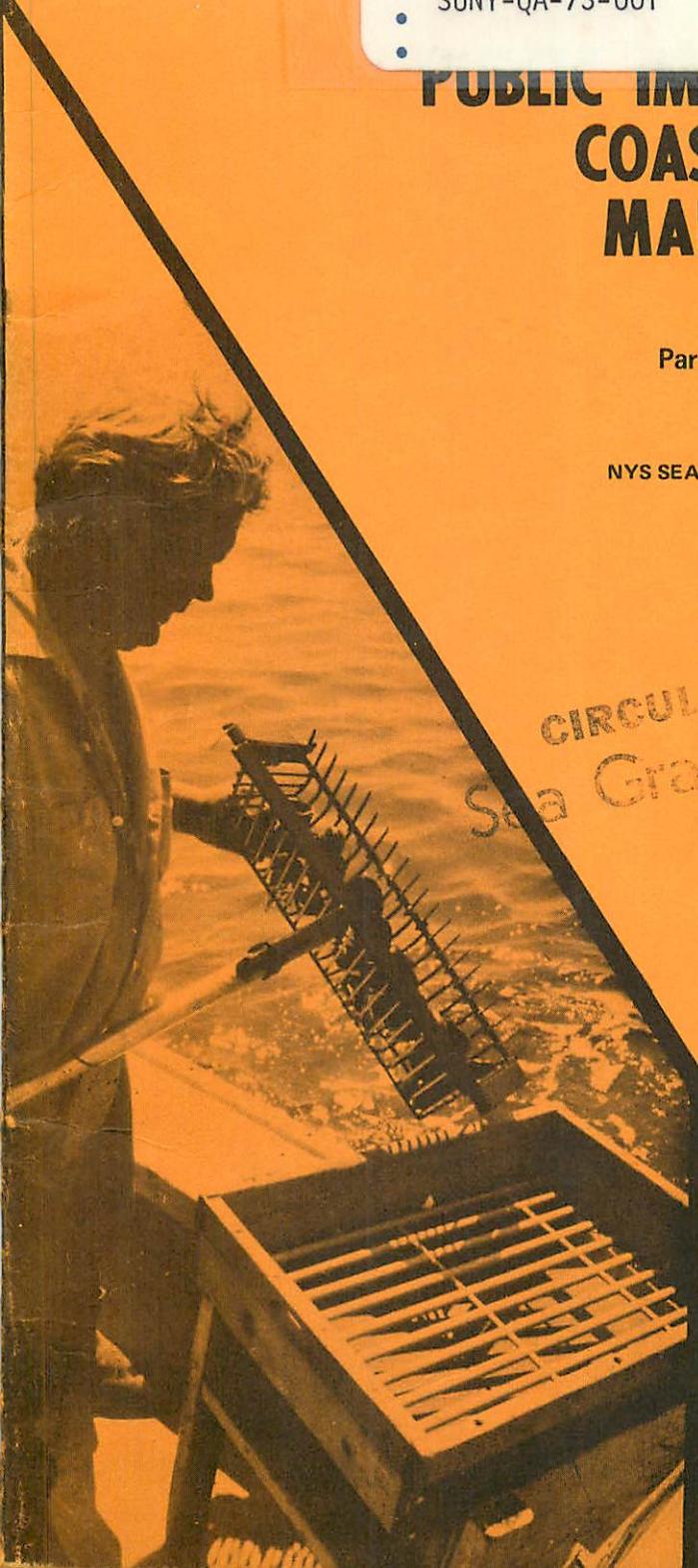
PUBLIC IMAGES AND COASTAL ZONE MANAGEMENT

Part I: Policy Implications

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by
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PUBLIC IMAGES AND COASTAL ZONE MANAGEMENT

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PUBLIC IMAGES AND COASTAL ZONE MANAGEMENT

POLICY IMPLICATIONS

There was a time when "coastal zone management," if the term had been used at all, would have been taken to mean a few engineers and workmen dredging harbors and navigation channels, erecting jetties and seawalls, or diking and draining marshes for "reclamation." Times have changed, and today coastal zone management is more likely to be seen as a campaign to realign the whole complex system of social controls over the behavior of millions of people as they live and work and play where the land meets the sea. This new orientation has come about as a result of the realization that *the trouble with the environment is man*. The environment has not suddenly turned against man, or even against itself. Nature continues on in her traditional ways, her ancient laws unchanged. What has changed is the impact of man's behavior on the surrounding world. What has to be managed is not the environment itself but man's behavior.

Anyone seeking to change institutions and thereby to change behavior will benefit from a systematic understanding of the processes by which institutions develop and change. These processes have been the subject of sociological theory and research since about the middle of the 19th century. By now, surely, sociology should have something to contribute to a program such as coastal zone management, in which the fundamental need is for the techniques of remodeling institutions.

Unfortunately, understanding how things work is not quite the same as knowing how to make them work better in relation to a given set of goals. We still have much to learn about the ways that sociology can be used for practical purposes. In the following pages I try to point out some practical implications of a series of modest studies of public opinion on coastal zone management. A required annual report to Sea Grant provides the occasion for taking stock and checking bearings to see how far we have come and where to go next.

I hasten to add that this is not a cookbook of tested recipes. It is more of an exploratory essay on how to make sociological research more useful as a guide to action, and it is directed as much to sociologists as it is to the men and women who lead the movements to save the wetlands, prevent oil spills, or set aside coastal wildlife preserves. This essay is only one side of a dialogue. Feedback is needed from people who have had or will have occasion to try some of the ideas suggested here. Reports on their success or failure will help to improve our understanding of the processes at work in purposive institutional change.

FORMULATING THE PROBLEM

Most people I have talked with about coastal zone management seem to be appreciative of the role of public opinion in developing a new and effective management system. Just how important is public opinion in this process, and what specifically does the general public contribute? These were the questions that led me into the study of public opinion in this area. My own involvement began in the spring of 1971 when a graduate student asked me to help him with an analysis of the controversy over the Port Jefferson sewage treatment plant. At about the same time a group of undergraduates asked me to be advisor on an interdisciplinary study of Mt. Sinai Harbor, which was to include a public opinion survey, a history of the dredging controversy, and interviews of leaders who had been active on both sides of the controversy (published as *Political Ecology of the Wetlands: The Case of Mount Sinai Harbor*, Environmental Studies Series No. 1. Stony Brook: State University of New York, 1972).

At first none of us was even vaguely aware that we were initiating a series of coastal zone management studies. The students for the most part saw each situation as historically unique and were reluctant to draw generalizations that might apply to other times and places. The theoretical concepts used at first were drawn mainly from political science literature on decision-making and community power structure.

By the spring of 1972, when another group was winding up a study of pollution of the Great South Bay, we were freely using the term "management." We had evolved an idea of the management system as the total of all

institutional forces controlling people's use of natural resources in and around the Bay. Having surveyed the management system then operating, we tried evaluating it in relation to a set of environmental quality goals. Seeing that the Bay was on the whole poorly managed, we speculated among ourselves about ways to improve the system. Once we had a picture of the present management system on one side of the blackboard and an ideal system of the future on the other side, the big question became, "How do we get from here to there?" It being the end of the year, the students graduated without answering the question.

A year later another cohort of seniors was giving a report to civic leaders and interested residents of Port Jefferson. After they had painted their picture of the present condition of the Port Jefferson Harbor area and of some possible changes that could be made in use of the harbor and adjacent land, the students drew fire from the audience. As it turned out, the local people were only moderately interested in hearing about the present state of affairs or even speculating about goals for the future. What they really needed to know was how to move toward *any* set of goals.

This fundamental question came up again and again in other contexts, in discussions of housing, transportation, or saving the best farmlands from suburban sprawl: the situation looks bad now; under a different set of rules of the game, it could be better. How do we go about changing the rules?

In almost every instance of environmental problems in this land of material abundance, the problem is not one of insufficient resources, but of how resources are distributed and used. Use and distribution of resources depends on a combination of technological, economic, political, and moral forces — in other words, on the institutional structure of the society. This being the case, our question becomes, How do you start with an institutional structure that generates a maldistribution and misuse of resources today and change it so that it will be conducive to a more desirable use of resources in the future? This brings us to a need to learn how to accomplish *purposive* institutional change.

Influences of many different kinds combine to generate institutional change, but I am not concerned here with a general theory of these changes. What I intend to focus on is *purposive* change, the kind that is created by people who say, "We don't like the way this institution works and we want to change it so it will work better."

Any deliberate realignment of social institutions in a free society has to have broad public participation. Institutions, after all, have no real existence except in the minds and behavior of the people, and institutional change occurs by means of a change in the thoughts and actions of those who participate in the institutions.

It has often been observed that changes in institutions do not originate among those who are most involved in the life of the institution. Demands for

change are more likely to arise from outsiders. This is one reason why public opinion has an important role to play.

During the past few months, with the help of students at Stony Brook, I have studied certain aspects of public opinion bearing on coastal zone management, and in the following report I shall have some things to say about the way public opinion seems to be tending, what its effects may be, and how the energies developed in the public may be mobilized for constructive change.

STAGES IN AN INSTITUTIONAL CHANGE MOVEMENT

Before turning to some of the specific observations, I want to outline the sequence of stages through which a movement will progress in order to accomplish its goals. The findings will then be discussed in relation to each of these stages. By this device I hope that those who are trying to lead the movement can make use of the findings as they work out solutions to problems encountered at each stage of the process.

The stages, although outlined in a sequential order, do not necessarily occur as separate time segments. Several stages may go on simultaneously. If the movement has reached stage 7, it may be found that progress is blocked because stage 5 has not been successfully completed. It may be necessary to go back and give more attention to the earlier phase. Now, the stages.

1. Changes in beliefs about the environment.

Before a movement for change can get under way, a substantial number of people must take a fresh look at the situation and see a widening gap between desires and fulfillment. This widening can be produced as well by rising expectations as by deteriorating conditions.

2. Loss of confidence in the old management system.

The first reaction to a widening desire-fulfillment gap is to call upon the established authorities to remedy the situation. As the natural shore front is destroyed by suburban development, appeals are made to developers and builders to behave more responsibly, and petitions are sent to town boards asking them to save shore lands. Campaigns of public information and mobilization of citizen support are launched under moral slogans. But despite studies, resolutions, moratoriums, and upzonings, environmental quality deteriorates. Someone observes that zoning and other measures taken by the authorities are delaying tactics that in the end succumb to development pressures. The old system cannot work because it was not designed to meet today's needs. With this realization, serious thought of institutional change begins.

3. Strong, continuing pressure from outside the established management system.

One or a few persons can get satisfaction by filing complaints, demands or petitions as long as the authorities are in a position to satisfy the requests.

Once it has been discovered that they are unable to deliver, however, and that the only way to get the desired results is to change the management system, the new demands become threatening to the authorities. From this point on, a much bigger push is needed from outside the system to overcome resistance within it.

4. Work at all levels of government.

The present coastal zone management system relies heavily on village and town governments. Three weaknesses of this system come to mind. One is that local governments lack the perspective to appreciate and look out for the interests of residents of the larger communities of county, state and nation. Another is that local governments are often too weak to resist the pressures of large corporate enterprises. Also, local governments lack the financial resources for many needed projects. All levels of government must be involved in a cooperative program, and in order to achieve this, pressure will have to be applied at all levels of government.

5. Breaking up interlocking directorates.

Established systems of social control are able to resist change in many ways, but one of the most important factors maintaining their stability is that the interests of the different institutional areas are interlocked. In booming suburban areas — precisely where the rate of development of coastal lands is highest — one should not be surprised to find that the successful politicians are closely aligned with real estate development interests. This partnership arises quite naturally because of mutual needs: the developers and speculators need favorable zoning decisions, and the politicians need campaign funds. Arrangements may also exist between the commercial-political partnership and those who are supposed to keep the public objectively informed. Newspapers that present a favorable view of local officials can count on steady revenues from public notices and from full-page ads placed by businesses involved in the partnership. Local officials have learned which engineering firms can be counted on to deliver reports that will lend pseudo-scientific support to plans previously conceived on a political basis.

The coastal zone management system will be more amenable to change if such interlocking interests are broken apart. Local government will be in a better position to impose regulations on speculators if politicians do not depend on financial contributions from real estate interests. An independent press, truly objective and independent scientific and engineering studies, and vigorously autonomous citizens' pressure groups are all needed to produce the dynamic situation out of which the needed reforms can grow.

6. Administrative inventions.

Once the situation has been made flexible and open to the real possibility of change, someone will have to come up with plans for the new system. A

revolutionary restructuring of the entire system is not to be recommended. The old system may be deplorable, but a whole new one from the drawing board could be worse. New administrative inventions should be introduced incrementally, and regarded as experimental programs subject to evaluation, review and revision. Reformers who come in with grandiose claims that their new system is sure to work perfectly are setting themselves up to become just another entrenched establishment. What is needed on the part of public opinion is much more acceptance of an experimental approach to institutional change. If the public is sold on a given plan as *the answer*, a whole new campaign of unselling will be required when the program fails. What we are aiming for is greater adaptability.

7. Enactment of new programs.

The test of the preparatory work will come when program proposals are introduced for enactment. People who have vested interests in the old system have an arsenal of defensive weapons to prevent the movement from getting past this stage. Whether a new program is to be carried out by the public on a voluntary basis, put into effect by business firms which then pass costs of the program on to their customers, ordered by an administrative agency of government, or enacted by a legislative body or by referendum, in any case public understanding and support is vitally important.

8. Monitoring, maintenance and improvement of new programs.

Once a program has been approved, active public support for it will probably subside. There are many other urgent problems needing attention; the leaders of the movement to save coastal resources will welcome the opportunity to turn to other, neglected matters. Contributions to the environmental groups that spearheaded the drive for enactment will dry up and the people will go back to business as usual. At this stage those who profited by the old system and feel disadvantaged by the new one will begin gradually to undermine the new program and prevent it from achieving its goals. Naturally they will do this, for hundreds of millions of dollars in profits may be at stake. They find new ways to circumvent the system, to make it work for them, to discover loopholes in the law, to prevent appropriation of the funds needed to implement the program.

Enactment, then, is not the end of the battle, and those who seriously intend to achieve the goals of saving coastal resources for present and future generations would do well to set their time frame with enactment at about the halfway point. Beyond that point lie years of campaigning to obtain sufficient funds for the program, watchfulness against attempts to reestablish the old partnerships such as those between real estate interests and local government. If the new program does not succumb to its natural enemies, there is still the chance that the program itself will prove to be faulty in design and inadequate to meet the demands placed on it. Continued monitoring, evaluation and

redesign will be needed in order to maintain or increase the effectiveness of the program.

It is easy enough to say that a sustained campaign will be needed, but it is not easy to carry one out. Representatives of the general public, in whose interest the program was originally initiated, have only a marginal interest in this particular set of problems. They are only part-time participants in the controversy, and the benefits that any one of them stands to gain from his own involvement are not large enough to justify very heavy investments of time or money. Arrayed against them, on the other hand, are a few who stand to lose or gain large profits as a result of environmental management decisions. These few find it economically feasible to devote full time and substantial amounts of money to a campaign to undermine or circumvent the system. What I have in mind here is that in a contest between a million people each with one dollar at stake and one person with a million dollars at stake, the latter has the advantage. The balance of power can easily shift in favor of the commercial exploiters of coastal resources once the new program has been enacted and public interest subsides. In view of the inequality that is likely to develop at that stage, it would seem that as an important part of the new program there should be some provision for continued public watchdog functions.

9. Restoration of trust.

The movement for reform in the coastal management system began with a crisis of confidence in the old system. If we think in terms of an eventual solution of the problem and look forward to a day when the citizenry can rest assured that their coastal heritage is no longer in jeopardy, we may think of that day as marking the final phase: the restoration of confidence in the system. If the designers of the new system have done a good job of building in automatic provisions for continual updating of the program to meet changing conditions, and if they have built in provisions whereby at least a few individuals have a vested interest in acting as watchdogs on behalf of the community, the day of restored trust may eventually be reached. This happy ending is by no means assured, however. It may turn out after all that the price of maintaining environmental quality is eternal vigilance.

RESEARCH BEARING ON STAGES OF THE MOVEMENT

Return now to an examination of some of the research findings as they relate to the stages outlined above. Most of the research that we have done bears on the earlier stages of the movement, and even there we have only scratched the surface of the topics. Nevertheless, I have assumed that in a fast-developing campaign, incomplete and possibly inaccurate intelligence is better than nothing. Needless to say, all that is reported here is subject to revision and refinement in the light of additional information as it comes in.

1. Change in beliefs about the environment.

There can be no doubt that public understanding of the coastal environment has changed in recent years. We wanted to document in some objective way the magnitude of the change, and also to try to identify the major problems that people now see. Public opinion surveys in two localities on the North Shore of Long Island gave us a sense of the strength of public commitment to protecting their immediate environment. Some work has been done on a questionnaire meant to discover the main cultural themes involved in the environmental movement, and to reveal attitudes toward basic management issues. Some experimentation has been done on methods of increasing people's awareness of environmental problems.

NATIONAL TRENDS. When the first polls on pollution appeared in 1965, only about one tenth of the populace considered the problem very serious. Concern for the environment lagged far behind the perennially massive worries about war, the economy, and social unrest which regularly dominate the polls. By 1970, the environment had advanced into the list of most important problems facing the nation. The rapid rise in concern over pollution is documented by the results of polls taken by the Opinion Research Corp., Princeton, N.J. The question asked was, "Compared to other parts of the country, how serious, in your opinion, do you think the problem of air/water pollution is in this area — very serious, somewhat serious, or not very serious?"

<u>Time of poll</u>	<u>Very, somewhat serious</u>	
	<u>Air</u>	<u>Water</u>
1965, May	28%	35%
1966, November	48%	49%
1967, November	53%	52%
1968, November	55%	58%
1970, June	69%	74%

INDIRECT INDICATIONS OF CHANGE. Locally, we have no series of surveys to go on; we must rely on indirect indicators of the trend of public opinion on environmental issues. Newspaper editors need to keep themselves attuned to the issues that the people are concerned about. We felt, therefore, that one indirect indicator of public opinion trends would be topics of editorial comment. We sampled NEWSDAY editorials for the years 1947, 1952, 1957, 1962, 1967, and July 1972-June 1973. There were only 8 editorials pertaining to coastal management issues in 1947, 2 in 1952 and 5 in 1957. By 1962 there was a marked increase in interest in these topics as indicated by 23 editorials. The number was down to 13 in 1967, but rose to 41 in 1972-73. The average number of editorials per year was 5 for the three earlier years and nearly 26 for the three later years.

Another barometer of public pressure on an issue is the activity of the state legislature. From the New York State Legislature *Record and Index* we tabulated the number of bills introduced in the State Senate pertaining to coastal zone matters for the same years as we had sampled in NEWSDAY. There were 3 such bills introduced in 1947, and 15 in 1972. The average for the three earlier years was a little over 4 per year, and for the three later years, 10.

LOCAL OPINION SURVEYS. Public opinion polls nationally have documented a sharp increase in public concern for the environment. Locally, we asked residents of Mt. Sinai and Port Jefferson for an indication of the problems that they regard as important in their own community. The results were as follows:

<u>Condition</u>	<i>Percentage seeing condition as a problem</i>	
	<u>Mt. Sinai</u>	<u>Port Jefferson</u>
	<u>1971</u>	<u>1973</u>
Overcrowded schools	44%	37%
Poverty	27%	49%
High taxes	80%	64%
The environment	53%	56%
Unemployment	33%	53%
Racial problems	15%	29%
Housing	36%	48%
Number of responses	252	255

High taxes were seen as the most prominent problem in both surveys, and the environment fell in second place. Evidently, residents of these two areas would like to see something done about the environment but they are in no mood to approve tax increases for this or any other purpose.

Both surveys gave indications that people were especially concerned about the *marine* environment. When residents of Mt. Sinai were asked to name some of the environmental problems in their community, 44 percent mentioned problems in the harbor, 22 percent mentioned problems outside of the harbor, and 34 percent could not name any specific problems. This question was not asked in the Port Jefferson survey, but it is significant that those who live near the harbor were more likely to regard the environment as a problem in their community than were those who lived at some distance from the harbor. That is, if "the environment" includes the harbor, it is more likely to be regarded as a problem than if it is composed entirely of land areas.

<i>Place of Residence</i>	<i>Percentage seeing environment as a problem</i>
On harbor	73%
Up to Old Post Road	71%
Up to Sheep Pasture Road	49%
Port Jefferson Station	33%
Selden (over 5 miles away)	41%

Probably from an objective point of view the environment should not be any less a problem in the interior of the Island than on the shore, but problems along the shore have been more highly publicized. There is a well-developed corpus of public opinion about pollution in the harbor but not about pollution of the land south of the harbor.

We are interested in knowing what kind of environment is considered ideal. What do the people want done with their coastal resources? At Mt. Sinai 73% of the respondents replied "No" when asked, "Are you more concerned with seeing the harbor's recreational facilities increased than preserving it in its natural state?" In the Port Jefferson survey the questions put were formally different, but the same attitude comes through. Two questions were asked: "What kind of community is Port Jefferson today?" and "What kind of community would you like to see it become?" Answer categories were provided by the interviewer.

<i>Type of Community</i>	<i>Port Jefferson today</i>	<i>Desired development</i>
Quaint Residential	6%	48%
Mixed commercial	64%	26%
Resort	5%	15%
Industrial	18%	3%
Other	1%	2%
No opinion	0	6%
	100%	100%

Although they had to admit that the community is mixed commercial or industrial today, a very substantial proportion would like to see it become more of a residential area.

Port Jefferson and Mt. Sinai residents are probably more cognizant of conditions at the shore than those who live farther inland. The Port Jefferson survey showed that those living on the harbor were much more likely to be involved in discussions of conditions in the harbor area than those living farther away. We can be sure, nevertheless, that there exists a strong base of public support for coastal zone conservation efforts.

DEFINING THE ISSUES. Originally we had hoped to make a survey of residents over a wide area of Long Island to learn their views on more general issues of coastal zone management. We were, however, at a loss to decide what

issues should be included. It was necessary to develop some background on the issues before designing a questionnaire.

There have been many different listings of the main substantive issues and problems involved in coastal zone management. At the Sea Grant Conference in Albany in February 1973, participants were assigned to workshops on seven "critical issues," which were:

- Electrical energy production
- Water quality problems
- Resources — their conservation and utilization
- Environmental control — physical limitations
- Unique areas — problems of preservation
- Land use pressures and the coastal zone
- Recreation — public and private sectors

(Source: *Managing our Coastal Zone*, Proceedings of a Conference on Coastal Zone Management, February 20-21, 1973, Albany, N.Y. Albany: N.Y.S. Sea Grant Program, 1973.)

The New England River Basins Commission, for its series of public workshops on Long Island Sound in 1973, identified five major issues:

- Electric power generation
- Oil
- Recreation
- Water
- Land use and development

(Source: *Planning to Save Our Sound*, Background Papers for Public Workshops. New Haven, Conn.: New England River Basins Commission, 1973.)

In our review of NEWSDAY editorials, bills introduced in the State Senate, and the minutes of the Nassau-Suffolk Marine Resources Council, we identified thirteen issues and several sub-issues as shown on Table 1.

Coastal zone management is a very broad cause, encompassing a varied array of issues. It is not possible to act forcefully on all of them at once. Some priorities should be set in order to focus on a few points, but these cannot be decided and completely orchestrated by leaders of the movement. History has a way of throwing new opportunities or diversions in the path of a movement, and flexibility must be maintained in order to take these in stride. It will be of little use for leaders to launch a campaign in one direction while news events are diverting public attention in another. After we have a clearer conception of the issues and the key questions to ask people about coastal zone management, it may become feasible to run a continuing series of polls to keep in touch with trends of public opinion.

TABLE 1. Coastal zone issues appearing in NEWSDAY editorials, and in New York State Senate bills during 1947, 1952, 1957 and 1962, 1967, 1972, and minutes of the Nassau-Suffolk Marine Resources Council, 1967-June 1973.

Issue	NEWSDAY			State Senate			Marine Resources Council
	1947, 1952, 1957	1962, 1967, 1972	1947, 1952, 1957	1962, 1967, 1972	1962, 1967-June 1973	1962, 1967-June 1973	
Oil	—	9	—	5	—	8	
Estuaries and wetlands	—	6	—	1	—	15	
Bridges	—	13	—	—	—	3	
Fisheries	—	—	1	3	—	2	
Dredging ports and harbors	1	3	—	3	—	20	
Filling and waste disposal	—	—	1	—	—	4	
Navigation	1	—	1	—	—	2	
Erosion	1	—	1	4	—	7	
Planning, general	4	20	2	6	—	43	
Water pollution	—	—	1	1	—	11	
Residential sources	2	—	1	1	—	—	
Industrial	1	1	1	2	—	13	
Commercial	1	1	1	2	—	15	
Boats	1	1	1	1	—	3	
Access	—	—	—	—	—	—	
Boat launching and mooring	—	4	—	—	—	—	
Beaches	—	—	—	—	—	—	
Recreation	—	—	—	—	—	—	
Active	—	1	—	—	—	—	
Conservation (passive)	3	11	1	2	—	—	
Land use	—	7	—	—	—	3	
TOTAL	15	77	11	30	—	149	

EDUCATING AND INVOLVING THE PUBLIC. In a separate but related project, the author and some colleagues have experimented in ways of changing people's images of the future. As Kenneth Boulding (*The Image*, 1956) has so persuasively argued, people form images of how the world operates and of their own place in it, and then they behave in accordance with the image rather than the "truth" as it might be defined by an objective bystander. Our project, funded by the Ford Foundation and called the Applied Ecology Project, proceeded from the notion that people do not have vivid or accurate images of future environmental events until they are actually happening. When a new shopping mall is being built or an expressway is being extended, those who are affected by the event only gradually begin to understand it and to feel its consequences. Much too late, they wish they had known about it sooner so that they could have tried to prevent it from being built, or they could have pressed for modifications in the design, or perhaps they would have wanted to take advantage of opportunities for real estate speculation afforded by the project. Unless people have advance warnings of major changes in the environment, they have no basis for responding to them. The future is a very abstract thing, and probably descriptions of the future in words and statistics are not enough to stir people to action. Somehow, if they are to be moved to *preventive* action, they must be made to see and feel the future in full three-dimensional color and stereophonic sound. Research and experimentation in ways of achieving this should be given high priority. Results of the Applied Ecology Project are not yet ready to report.

2. Loss of confidence in the old management system.

It takes a crisis of confidence to generate a strong movement for change. The movement gets going once enough people have been jarred out of the complacent assumption that responsible, capable people are in charge and that "they" will take care of all problems.

A LABORATORY DEMONSTRATION. Eleven men and women with diverse interests and occupations sat around a table in the small groups laboratory at the University, grappling with the question of what to do about a proposed bridge from Port Jefferson to Bridgeport, Connecticut. They had been invited by the Applied Ecology Project to take a simulated journey into the future where they would confront a major event with a far-reaching impact on the region and on their lives. They had been told that the bridge was a *fait accompli*, that the decision to build it was final and that all that remained for them was to learn to live with it. How will the bridge affect your life? What will you do in response to it? These were the questions the eleven participants were told to confront.

They tried to play along according to the rules, but there were mutinous rumblings. "Why are we being told so late in the process that the bridge is to be built? Why weren't we brought in earlier so we could have a hand in

deciding whether or not it should be built?" asked some. The mood grew so rebellious that it looked as if the organizers of the game might have to step in and restore order. This was not necessary, as it turned out, because the other players achieved calm at least temporarily by asserting that the game was actually very realistic. In real life the average person is not involved in making the big decisions that will determine the shape of the environment where he lives. He learns about plans for expressways, bridges, airports, shopping centers and other big developments only after it is too late for him to do anything but learn to live with them.

"Even so," exclaimed one of the radicals, "our problem should not be to learn to live with the bridge! The really vital question should be: How can we change the system of decision-making so that the average person is not repeatedly the victim of an unexpected and catastrophic event of this kind? Can we devise a better system of planning, and if so, how can we set it up in place of the present system?"

Apparently the game had succeeded in making the future vivid, for it had generated the same sense of alienation as people sometimes feel in real life, the sense of being helpless victims of invisible and unpredictable super forces. The players reenacted in a small way a drama that takes place so often on a larger scale. They lost confidence in the way things are normally done.

RETREAT TO THE GRASSROOTS. Loss of confidence in the system is expressed quite often in the form of a secession movement. Residents of one locality try to break free from controls imposed by a government that they feel is too far away and does not respond to their needs. In 1966, residents of Mt. Sinai lost confidence in Brookhaven Town's ability to protect the harbor and marshes. After a bitter political struggle, they managed to stop the town's dredging operations as well as its proposal to acquire extensive acreage around the harbor for public use. Years later, in 1971, suspicion was still strong. Mt. Sinai residents were asked, "How do you think decisions concerning the harbor should be made?" The majority, 53 percent, said that decisions should be made by community residents. Only 7 percent said that they should be made in the established way, by the town board. Other replies were: referendum, 15 percent; professional advice, 8 percent; miscellaneous others, 11 percent.

Port Jefferson voters had demonstrated their preference for home rule by incorporating as a village in 1963. Reasons given for incorporation were that the Brookhaven Town government was at Patchogue on the South Shore, far from Port Jefferson, and that the majority of voters were in the southern part of the town. Port Jefferson residents felt that the town officials were willing to exploit the industrial and commercial potential of Port Jefferson as a seaport for the benefit of the entire town but to the detriment of its scenic beauty and charm as a residential community.

This pattern of local community versus the town is repeated frequently in the region, as civic associations drum up support for incorporation or assume a posture of continual opposition to town land use policies. Unfortunately, those that incorporate find that grassroots government still leaves many of their problems unsolved. Small villages find that they have the will but not the financial or political means to achieve their goals. Having gotten out from under the town, they are still in a weak bargaining position in relation to large business corporations and big government.

SUSPICION OF GOVERNMENT AND BUSINESS. A new questionnaire is being developed that will delve more deeply into matters of confidence in the established way of doing things. On a pretest of the questionnaire in the summer of 1973, we found such strong agreement on some of the issues that they seem worth reporting here. Only 24 people were interviewed, so these are merely tentative findings, or hypotheses.

Alienation from the established authorities is certainly apparent in the answers to this question: "If each of the following groups proposed a plan to deal with the issues we have been discussing, which group's plan do you think you would prefer?

<u>Group</u>	<i>Number who prefer the group</i>
Scientists	16
Elected officials	0
Professional planners	4
Local resident voters	3
Industrial and real estate	1

Why are scientists preferred? This is a question to be explored further. A few respondents gave a clue in saying that they trust people with "no axe to grind" or "no vested interests."

On the home rule issue, responses split about 50-50 over allowing higher levels of government the authority to veto coastal management decisions by lower levels. On allowing local government to veto decisions made by higher levels, however, there was little disagreement. Eighteen favored veto by the lower level, only 3 opposed it and 2 were undecided.

Distrust of the oil companies was plain to see, as 21 of the 24 gave the negative answer to the question, "Do you think the oil companies should be the ones to say when it is safe to drill offshore?"

Further distrust of government was revealed when we asked respondents how much they would be willing to pay for coastal zone protection programs. We expected a dollar figure such as, say, \$25 a year, but instead nine people said the government is already wasting too much money, and any funds for new coastal zone programs should be taken out of present taxes. Six others would give less than \$10 in new taxes, and only 7 offered the kinds of sums

that might gladden the heart of coastal zone planners. None went over \$100 a year.

Public opinion polling in this field is still in the exploratory stage, but so far it does seem to confirm the impression that one gets from reading the newspapers or attending public hearings: that there is a prevalent distrust of the political-commercial establishment; that people still feel that the best government is the government closest to home; that taxes are already too high and the environment can be protected without substantial new levies; and that the people are very interested in hearing what scientists have to suggest in the way of plans for the coastal zone.

3. Strong, continuing pressure from outside the established management system.

In order to carry forward the momentum of the movement, it is vital that the number of participants be maintained or preferably increased, and that they be organized well enough to be able to mobilize mass demonstrations, leafleting campaigns, etc. We have two studies to report that have a bearing on this aspect of mobilization. One is a study to find out who becomes involved in environmental issues. The other is a look at cooperation (or lack of it) among organizations in the environmental movement.

WHO GETS INVOLVED? In the Port Jefferson survey we obtained three indicators of active involvement with harbor issues. (1) "Do you and your neighbors discuss issues affecting the Port Jefferson Harbor area?" (2) "Have you attended town or village board meetings or public hearings when issues concerning Port Jefferson were being discussed?" (3) "Have you ever made a complaint about safety hazards or pollution caused by an industry in Port Jefferson?" Discussion of the issues with neighbors was the most frequent activity, being mentioned by 44 percent of the respondents. Attendance at meetings was indicated by 31 percent. Only 13 percent had ever made complaints about industrial hazards or pollution.

Analysis showed that discussion of the harbor with neighbors and attendance at meetings are slightly more prevalent in the age group 31-50 than among younger or older persons. Males participate in discussion and meetings somewhat more than females, but more women than men have made complaints about industry. Discussion with neighbors and attendance at meetings are both positively associated with income and education. Also, people in occupations that require skill in verbal communications are more likely to be involved in talk at meetings about the harbor.

Evidence from the survey appears to support the idea that involvement with policy relating to the harbor is strongly determined by physical exposure to the harbor. Place of residence proved to be a much stronger predictor of behavior than any of the social status variables. Eighty-one percent of those living on the harbor discuss it with neighbors, in contrast to only 6 percent of those

interviewed in Selden, five miles away. Attendance at meetings to discuss harbor problems dropped from 66 percent at the harbor's edge to zero in the two outer zones. Those living near the harbor are far more likely to have made complaints than those living farther away.

Living near the harbor is not the only way to be exposed to the opportunity for firsthand acquaintance with the harbor. People living away from the harbor but exposed to it frequently because they drive by regularly on the way to and from work or use the harbor for boating are about twice as likely to have been involved in discussions, meetings and complaints as those not thus exposed.

Nevertheless, the individual's social characteristics do have an effect over and above that of firsthand acquaintance with the harbor area. Especially in the zones farther from the harbor, those with higher education and income and with occupations requiring communicative skills are more likely to be involved with harbor issues.

Seeing that interest and concern for a particular spot on the coast depends strongly on how far one lives from that spot, we can readily draw some lessons for policy. One is that the peak of moral energy is to be found immediately adjacent to the site of an environmental problem. The cadre of hard workers for a drive against water pollution can best be recruited literally along the waterfront. They may not be technical experts or clever political tacticians but they will be enthusiastic and they will invest time because they personally have more at stake than others. Concern for residential property value is no small part of their interest. Given that this kind of energy is highly localized, it probably cannot be tapped for more abstract or generalized causes unless the local cause is clearly involved with the larger one. Thus, very few people will take the trouble to participate in an Association for the Preservation of the North Shore of Long Island. Many more, however, would get involved to save their own particular spot on the North Shore. A small local committee, then, will be strong in dedication and sustained drive. But it will be too small and weak to deal adequately with the very large institutions that it must seek to change.

Some way is needed to augment and magnify the force of small committees without losing the basic dynamic of local interest. It would seem that a *federation* of small committees could provide for both the vital grass roots energy and the capability for action on a large scale. To be viable the federation should be solidly supported by funds raised at the local level. An added advantage of grassroots committees is that they are more likely than countywide organizations to gain participation of people of lower socio-economic status. This would be a healthy thing for a number of reasons, not the least of which is that it might lessen the chance for a coalition of big business and labor against the environmental movement.

HOW WELL ORGANIZED IS THE VOLUNTEER SECTOR OF THE MOVEMENT? Under public pressure during and soon after the Mt. Sinai dredging controversy, those responsible for managing the harbor made substantial changes in their methods. A Board of Waterways was appointed to advise the town on coastal matters, and also an Advisory Committee for Mount Sinai Harbor. These two bodies allow scientists, engineers and civic leaders the opportunity for routine access to the planning process. We have not investigated the work of these two groups, but we do know from experience elsewhere that participation can all too easily become cooptation. If such advisory committees are not closely watched by the public, town officials may gradually replace the more troublesome members with new appointees whose views they find compatible with their own. More will be said of this later.

In the conclusion to the Mt. Sinai report, the student investigators observed, "At the peak of the dredging controversy local groups were highly organized and effective. Since then their membership and attendance have declined and communication among groups has decreased. Difficult as it may be to maintain interest without a current crisis, these groups cannot afford to let their guard down. Possibly a central information gathering and disseminating committee should be formed. Included would be representatives from all concerned groups"

It is perhaps too much to ask the public to keep constantly stirred up over issues that have been quiet for years. Yet no one can tell at what moment a new crisis may erupt and catch the people unprepared.

An example of a quiet crisis can be seen in the Great South Bay region. In 1971-72 we found that people who watch the bay generally believed that conditions there had improved. The water was perceived to be clearer than before, progress was being made in the control of duck farm wastes, and new sewer systems were under construction in areas of population density. Still, nearly everyone agreed that many problems lie ahead in management of the Bay's resources.

One member of the study group, Gail Satler, set out in the fall of 1971 to try to discover the degree of readiness and alertness of environmental groups that might be expected to have an interest in the Bay. Her specific assignment was to try to find out if there is an open and working communication network linking environmental groups to one another and to the general public.

In a series of telephone interviews a few months before, another student had talked with 12 leaders of environmental groups and was unable to reach 9 others in repeated attempts. His impression from these interviews was that the work of the different groups was sporadic and uncoordinated and that none of them knew much about what the other groups were doing. Their major coordinated effort had been directed toward an unsuccessful effort to set up a Great South Bay Commission.

In her follow-up study, Ms. Satler sought to collect systematic data on the work of each group and its relation with the other groups. As a very determined member of the public who urgently needed to contact the groups in order to earn her grade for the course, the investigator learned first of all that the groups were very hard to find. One coordinating council was unable to provide her with a mailing list of environmental groups. The council was having extreme financial difficulties. Another group attempting to develop a coordinating role had no list; the group has since disbanded. In the University library an old list was found, most of which was obsolete. By various means the list was expanded to 33 organizations.

At first the investigator tried phoning people for interviews but found it very slow going because of non-answers, wrong numbers and cases in which the appropriate person was either not in or was too busy to talk. To her surprise, in the 8 interviews compelled in this manner she found that (1) officers did not know what the other members were doing and that (2) they did not even know the order of priorities in their groups. The lack of definite goals seemed to be a serious weakness. Although these leaders also claimed numerous memberships in other groups (one person belonged to 19), they could not tell the interviewer what the other groups were doing.

On one issue the respondents were in agreement, and that was the need for money. All of them cited lack of money as a major reason for things not getting done.

I have considered the possibility that Ms. Satler's findings were faulty because of inexperience or poor interviewing technique. There are four things to be said to this: first, that she is a pleasant person, definitely easy to talk with. Second, that another student had obtained similar results a year earlier; and third, that we were interested in finding out how readily an ordinary person, not a super sleuth, could obtain information from these groups. Finally, the telephone findings were further supported by the results — or lack of results — of a mailed questionnaire. Only four completed questionnaires were returned, and none of the responding groups reported links with one another or with common third parties.

In conclusion, we could find no evidence of strong organizational ties to indicate that the environmental groups on Long Island in 1971 were capable of sustained coordinated action. Coordination costs money, especially in an area as large as Nassau-Suffolk. Perhaps some new funding inventions are needed to generate the basic material supports for the separate groups and for intergroup communication.

4. Work at all levels of government.

We have no original data bearing on this phase of the movement, other than the observations already made about the extreme localism of interest in Port Jefferson Harbor and the observations on home rule sentiment. Parochialism may loom as one of the major barriers to coastal management reform. Can it

be that if it comes to a choice between saving the environment and saving grassroots government the people will prefer the latter? Some really crucial issues coming up have to do with intergovernmental relations in coastal management, and we need a better understanding of the public images of these relations. What do the voters and taxpayers think of as the proper relations among different levels of government and among neighboring political units? What essential values are they trying to maintain through Balkanization of the metropolitan community? And can these values be safeguarded in some other way than by the home rule doctrine so that higher levels of government may be given a stronger hand in protecting the interests of the greater community?

5. Breaking up interlocking directorates.

If we divide the most active participants into four groups — (1) the information producers and processors, (2) those with a commercial interest in coastal resources, (3) government and political personnel, and (4) public interest environmental groups — we see that there are six possible sets of intergroup connections. We are here concerned with the fourth category and how it relates to the other three.

Vigorous autonomy is the desirable state of relations between all of these groups. Probably the best-known type of violation of this rule, and the one most often exposed by the press and by grand juries, is the partnership between commercial interests and government. But ties between other pairs in the system can also be detrimental to the cause of institutional reform.

For any group to act autonomously, it must have freedom to obtain factual information from an open and free market of independent sources. If it draws all information from one source, it is dependent upon and may be controlled by that source. The autonomous group does not allow its sources of material support to be closely controlled by any other group, but seeks to develop many separate means of support. Autonomy is enhanced if the group is supported by member contributions or its own earnings, reduced if it must go to one big donor for funds. Autonomy is enhanced to the extent that the group can recruit members from the public at large and set its own tests for membership; it is restricted if members are chosen for it and assigned by some other group. Finally, to be autonomous the group must be able to set its own agenda for discussion and action.

A movement to introduce change in a set of institutions has to be constantly on guard against being taken in by those institutions. To be an independent force, environmental organizations must avoid dependence on any particular source of information, must guard against domination by commercial interests or manipulation as "window dressing" by the very agencies they are trying to reform, and must be prepared to combat attempts to use their own symbolism and slogans against them (ecopornography).

Autonomy, unfortunately, is not enough. It is easy to remain autonomous as long as one is content to be ineffective. The difficulty comes in trying to maintain autonomy while making effective contact with the institutions that are to be changed.

Environmental movement groups could benefit by learning from one another about the tactics that have been used against them by a resistant establishment and about the methods some of the groups have devised to keep up their effectiveness without losing their autonomy. Here is an area of urgently needed sociological research on which, regrettably, we have nothing to report at this time.

Just as one example of a subject for study along these lines, let us consider the system of environmental conservation commissions being promoted throughout the state by the Department of Environmental Conservation. The commissions are appointed to advise local government with respect to its environmental programs. As summarized in *The Conservationist*, Feb.-Mar. 1971,

This new approach to environmental conservation action in the community coordinates the efforts of a concerned citizenry, formalizes and strengthens the program on a local level and establishes a working bond which brings technical assistance and direct financial aid to localities from the State.

The commission is further characterized as a "dynamic approach to the solution of environmental problems." The idea that it is dynamic immediately suggests that it poses a threat to the established way of doing things. How many of these councils have been coopted by local officials to serve as a rubber stamp to policies agreed upon in backroom party caucuses? By what tactics have some commissions managed to establish themselves as independent voices in their communities? To what extent do the commissions serve as channels for citizen input to the governmental process? To what extent do they serve more to filter out citizen input that the authorities do not want to hear, or to draw flack away from the local officials? These are but a few of the questions that could be fruitfully investigated in a regional or statewide study of local environmental conservation commissions. One product of such a study could well be a guidebook on how to keep the commissions truly dynamic and prevent their being captured by the local establishment.

6-9. Advanced Phases of the Movement.

There are no research activities to report at this time relating to phases 6-9 of the movement. Our research thus far bears on the earlier stages only. We have yet to work out tools for analyzing public attitudes toward major dimensions of management structure, such as level of government responsible for management, public versus private ownership and entrepreneurship, and

the limits to public control over private property. If we know some of the limits of public tolerance on these dimensions, we will be in a better position to evaluate new administrative proposals.

No management system will work effectively if it is not accorded legitimacy under U.S. institutions. Many of our programs of social amelioration have lacked full legitimacy and consequently have been held back from full development and from the scale of funding and effort needed for success. Examples are Federal housing programs, always looked upon with suspicion as subversive socialist schemes and never given enough resources for any but token projects. The welfare system is an incredible bureaucratic monstrosity designed more to keep people poor than to help them out of poverty. This again is in large part because the American people do not really believe the government should step in and prevent people from being poor. To do so would be, for one thing, an injustice to honest working people. If it is to be more than empty rhetoric and sham programs, the coastal zone management system will have to be in tune with major American cultural themes.

It may be relatively easy, from a technical point of view, to design management programs that would protect coastal resources from destruction by man's activities. For example, here is a *technically* perfect solution: have the Federal government buy all coastal lands and set them aside as national seashore. Permit only a limited number of people to visit the seashore at a time, so that people will have to make reservations in advance and there will be long waiting lists for trips to the coast. Such a plan could work, perhaps, but only in a purely technical world. In the real social community in which we live, proposals have to pass tough tests not only of technical effectiveness but of economic feasibility (Where will you find the money to buy all that land?), political possibility (People who live on the coasts have enough votes to dump any politician who seriously proposes evicting them from their homes), and finally, of moral legitimacy (People worked hard and saved to acquire their homes on the coast. Eviction would be an intolerable injustice against honest, thrifty, industrious citizens).

It was easy enough to demolish our simplistic proposal, but once we get into the examination of more sophisticated proposals, some of the subtle nuances of moral judgment become very hard to anticipate. An idea that may be made to appear morally acceptable from one point of view can be made to seem illegitimate from another point of view. In the final analysis, the fate of what seems to be a good proposal may depend on the ability of its advocates to associate the plan with positive moral imagery and symbolism.

Public opinion research has a role to play in identifying the relevant sets of shared images and trying to anticipate whether a given coastal zone management proposal will be compatible with these images.

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