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MEMO: TO WHOM IT MAY CONCERN

FROM: James M. Stewart
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SUBJECT: Institute Report No. 88 - "Public Participation in Water Pollution Control Policy and Decision Making"

The attached report summarizes results of a study on citizen awareness, concern, and participation in a public hearing on stream classification institute by the North Carolina Board of Water and Air Resources.

Measurements were made of citizen perception of the pollution problem, the relative position of pollution with respect to other perceived problems, and awareness of the state water pollution control agency and its program of stream reclassification.

The study revealed a very poorly informed public and limited public participation in the public hearing process.

Recommendations are made on means of improving the level of citizen awareness, knowledge, and participation. These recommendations should be useful to local, state, and federal agencies concerned with improvements in public participation in existing programs.

JMS:jj

Attachment

UNC-WRRI-74-88

PUBLIC PARTICIPATION IN WATER POLLUTION CONTROL POLICY AND DECISION MAKING

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ABSTRACT

The interest in and demand for increased public participation in agency decision making has become more prevalent in recent years. For participation to be a reality, there must be awareness of the problem, concern about it, and knowledge of the agencies and procedures by which decisions are made.

This project was designed to ascertain the extent of public awareness and concern about stream pollution and the public hearings being held by the Quality Control Committee of the North Carolina Board of Water and Air Resources as well as an examination of the extent and type of participation in these hearings.

Surveys of a random sample of households in the areas affected by the hearings were carried out by telephone during the week immediately following each hearing. Reported are the results from four hearings. The first was a general hearing dealing with the "E" classification. The other three hearings dealt with a general upgrading of the designated class suggested by the Board of Water and Air Resources.

Results suggest a generalized awareness of the problem of stream pollution and a concern about its importance. With some variation from area to area, respondents tended to see stream pollution as a major concern for the State of North Carolina and for their county of residence. The responses did not indicate a great deal of knowledge about state agencies responsible for control of stream pollution nor their programs and criteria. There was little knowledge of the public hearings of concern despite a generally demonstrable notice effort by the responsible agency. Few of the respondents indicated they attended the hearings in question.

Analysis of attendance at the hearings tended to show a relatively low level of public participation. Representatives of organized activities whose activities were immediately affected were present. Where suggested changes were perceived as threats to immediate interests, affected individuals also voiced opposition. Some indications of the lack of knowledge on the part of the general citizenry about the means of efficient participation was also noted.

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SUMMARY AND CONCLUSIONS

For each of the hearings, the telephone surveys indicate a relatively high level of concern about stream pollution as a major problem. This concern recurs in each study although its primacy shifts. Despite the acknowledged concern, however, the respondents were poorly informed about various aspects of the State's activities in attempting to combat the problem. Uncertainty about the existence of any program for many; a lack of knowledge of the responsible agency for those acknowledging the existence of a program; and, very little information about the criteria on which the program is based among those who know of the program, all combine to produce a picture of a very poorly informed public.

Analysis of attendance at the subject public hearings supports a previous description. Because of the importance of the subject and the generally expressed concern one might have expected large numbers of citizens to attend. Approximately three hundred persons attended the four hearings. For the most part, those who attended represented commercial, industrial, and governmental interests. Citizens, and citizen groups, were very much in the minority. Only in the case of the last hearing in Kinston could a significant portion of the audience be considered as representatives of the non-vested interest "public".

Table 26. Distribution of Registered Attendants at Regional Hearing by Interest Group, Type of Organization Represented, and Place of Hearing

Interests and Organizations Represented	Place of Hearing: Hickory No.	Hickory %	S. Pines No.	S. Pines %	Kinston No.	Kinston %	Total No.	Total %
Agriculture								
Farmers & Farming Industries			12	15.2	3	3.8	15	7.8
Farming Associations			10	12.7			10	3.2
State & Federal Agricultural Agencies	4	12.5	14	17.7	6	7.5	24	12.6
Industry	11	34.4	10	12.7	24	30.0	45	23.6
Government								
County	2	6.2	6	7.6	11	13.8	19	10.0
Municipal	1	3.1	8	10.1	4	5.0	13	6.8
State & Federal Elected	1	3.1	3	3.8	8	10.0	12	6.3
State & Federal Agency			4	5.1			4	2.1
The Public								
Citizens Organizations	3	9.4	2	2.5	1	1.2	6	3.1
Private Citizens	6	18.8	6	7.6	18	22.5	30	15.7
Other								
Public Utility	1	3.1	1	1.3	2	2.5	4	2.1
News Media	3	9.4	2	2.4	1	1.2	6	3.1
Education			1	1.3	2	2.5	3	1.6
Total	32	100.0	79	100.0	80	100.0	191	100.0

Recommendations

More and more decisions concerning environmental planning and control are being made by governmental agencies. These decisions often place immediate constraints on activities of individuals and organizations and have the long run consequence of setting the patterns for future development. In a pluralist, democratic society, it would appear that the maximization of participation by citizens in the decision process would be desirable. It does not appear to be a reality -- if the above is exemplary. Put another way, what factors would appear to limit citizen participation? There are, of course, almost as many reasons as citizens but certain categories appear to be relevant.

To begin with, the problem of low participation is a compound resultant of characteristics of agencies and characteristics of citizens. Any attempt to maximize input from citizens will be successful only by modifying each of the above. With this in mind, the following suggestions are offered as among those which must be dealt with if a program is to be successful. No claim that these will assure success is made, but it seems clear that these must not be ignored.

First, modify the awareness-knowledge situation. In order to make any contribution, citizens must know about events, issues, and ways in which they can effectively participate. How do they find out about these activities which may affect their future? In the case of the hearings around which this study has revolved, notice is generally given in the form of a published legal notice -- which is buried in the fine print, wrapped in formal "legalese". If the issue is of burning concern, a reporter may make a point of it somewhere else in the paper. This assumes it is of immediate concern and in some way may be "sensational".

A copy of the notice and accompanying materials is sent to persons whose names are on the agency's active mailing list ... i. e., persons who have previously expressed an interest in the subject or whose position in a formal organization implies he would need to know of the hearing, and, anyone who requests the material.

As previously indicated, despite a publication schedule in broad circulation newspapers, and an extensive mailing list, not only the agency's activities but the agency and its area of responsibility appear to be relatively unknown. It would appear then that a place to begin would be in the development of a long-range program to sensitize the general public to the agency, what it can and cannot do, and the various ways in which the responsible, concerned citizen may be involved -- both in the decision making and the enforcement processes. Because of the long-run nature of such a program, it would not be likely to have immediate impact, but its value might prove great in the future. In effect, it involves training citizens to participate in government. This would involve reaching citizens during their school years and exposing them not only to discussion of how government functions but how a citizen can actively be involved in the process ... particularly in the agency processes which constitute a large part of government. Such a program would mean a change in both the agency and the citizen's activities. It would involve the development of means by which schools, libraries, and citizen groups would be educated ... slides, lectures, movies, demonstrations, etc.

Historically, agencies have made little use of the potential for creating aware and concerned citizens offered by the various mass media. As noted, the legal requirement for notice is meticulously followed but, in general, little effort was noticed in which the agency actively attempted to expand its noti-

fication processes beyond those prescribed. Both radio and television lend themselves to "spot" announcements which would increase the potential for exposure and raise the level of awareness of citizens about problems and agencies. While this is beyond the budgets of most agencies, funds might be built in and increased over time. At present, there are possibilities which appear untapped. Because of the F. C. C. expectation that public service advertisements be made by radio and television stations, an opportunity would seem present for their use by state agencies. Much of their present use seems to be by federal agencies and national organizations but they represent a potential vehicle for such agencies as the Department of Water and Air Resources. While this is not truly "free" it means information can be disseminated at a greatly reduced cost.

As a part of its program for developing citizen awareness, it appears necessary to create and maintain a "sense of crisis" about the extent and nature of stream pollution in the state. It would seem that "the public" is concerned and active only when the problem is immediate and "at home". This is substantiated by the success of control efforts after a disaster and by the combined efforts of citizens who see their immediate self interests as threatened by an activity or situation. The "perception of crisis" may be developed and maintained by the assiduous use of the mass media, especially television. In addition to news releases, interviews, and problem area coverage by media, the agency might work toward local interest coverage in which problems of particular areas are analyzed. With the expressed concern by citizens, media personnel should be able to use information which is thorough, accurate, and complete. Interviews with local officials, leaders, and interested persons, if efficiently

handled, can be quite effective in combination with visual materials to drive home the message.

A large number of organizations exist in most North Carolina communities. Most of them would be most receptive to "multi-media" presentations dealing with problems, progress and prospects for control of water pollution ... especially as it affects their own local area. To implement this kind of approach would involve more trained personnel with skills different from those presently found in most agencies. More important perhaps, it would require a drastic modification in the definition of proper agency activities and scope.

Second, modify the mechanism for participation. A second, radical change oriented toward the development of active citizen participation would be to drastically change the process of participation so that representatives of the general public are actively involved in the decision process throughout an issue's consideration. The recent efforts of the Corps of Engineers to involve citizen groups at all stages in its deliberations of approaches to flood control in Crabtree Creek from Umstead State Park to the Neuse River through Raleigh, North Carolina, is an example of a major change which increases the possibility of citizen participation. It represents an active commitment to broadening and intensifying citizen input to agency decisions. Whether or not such programs will get the general public to participate is too early to say, but they should get more publics involved than has previously been the case.

In the above the emphasis has been on the problem in the process of decision making, especially public hearings. The character of "the public" must also be considered. The complexity of existence is, for the majority of people, such that it is generally not possible for each person to be greatly concerned and actively

involved in each problem he perceives. Generally, he must rank them and sort out those with which he will concern himself. This leads to a compartmentalization of concerns with the individual more sensitive to some issues than to others. In turn, he has a tendency to narrow his scope -- he reads, listens, and watches those things about which he is sensitive or which he feels has an immediate, direct impact on him. Any program to increase public participation must begin with a "selling" process to make the "average citizen" aware of his own personal investment in the problem as well as making the process of participation as easy as possible. The outcome of these efforts would be likely to increase the involvement of more "publics" rather than "the public" ... but this may well be what is actually desired.

Without radically modifying the participation process, what changes might be suggested? In addition to the change in notice procedures suggested earlier, a change in the presentation format would seem useful. Effective input often means an individual must have a reasonably high level of knowledge of the agency jargon. In many cases, this means familiarity with terms couched in the highly technical language of skilled engineers, or a familiarity with the intricacies of rules, regulations, and laws. While in many cases necessary for the non-initiated, it can constitute a barrier to participation by the average citizen. A review of techniques of notification and modes of presentation may be desirable with the intent of developing maximal information for the citizenry without necessarily sacrificing accuracy.

As a part of this process of change, the time hearings are held might also be reviewed. Generally, such hearings have been held during the work day. In cases where many changes have been considered, the activities have taken a full

days time. The effect of this has been that only those persons having duties which would encourage their presence or those having sufficient flexibility in their work schedules can attend without incurring "extra" costs. Hearing participants other than agency or organization personnel have on occasion reminded board members that they were losing a days pay in order to present their case. While, in some cases impossible to achieve, some consideration might be given to night hearings on an experimental basis for evaluation of their effectiveness in increasing "public" participation. The board has previously recognized these extra costs, in part, by taking hearings into the affected areas. However, the factors which determine the location do not always seem to be directed toward minimizing participant costs as far as travel costs are involved.

By the time a public hearing is called, certain groups and organizations have been called upon for input. Plans and suggested changes are formalized. They are then presented by the agency to be supported or opposed by the "public". The agency through its board then evaluates the "communication" and determines the action to be taken. In many cases, representatives of agencies contacted in the original process of plan development appear at the hearing to support the action "for the record". Citizen input appears minimal except in the form of requests which are made of the agency that certain actions be taken and through reactions of the members of the Board of Water and Air Resources, especially the Water Quality Control Committee. One way of increasing early involvement of various publics might be through the involvement of formal and informal leaders at county and local levels. This would involve identifying them, getting them interested in being active in the process of information dissemination, and maintaining contact with them. As issues arise, these persons could be apprised of

them early so they could alert persons and organizations which might be interested, thus, increasing the potential for more and earlier involvement by the public. These citizen groups could be considered an adjunct to the Board appointed by the Governor. It would appear that such an approach would multiply the potential for communication between and representativeness of the various publics interested in agency activities. Such an organization would, of course, have to be handled in such a way that it would not become either too unwieldy or pro-forma if it would have any benefits.

Such an approach could best be instituted by adding to the agency staff a person or persons trained in the development of such working relationships. The responsibilities of such a position would be those of assisting interested publics in acquiring and interpreting data and information, in preparation of their "cases" for presentation to the board and in interpreting the results of board actions. Such a position might well become a "communication link" with the public.

Bases of Objection to the Above Suggestions

Assuming that the need for change is accepted, the most apparent objection would be that of the cost of such modifications. It is clear that many of these changes would be expensive. Where, historically, money has always limited program extent, this is a major obstacle which will be overcome only with a committment by agency personnel, board members, legislators, and citizens to incur the costs.

It is also likely that the involvement of more persons in the decision process will slow the decision process. For agencies where the work load is already extremely heavy and actions often delayed, an additional factor retarding the process may be considered unacceptable. In this case, the decision must be made whether additional public participation is of sufficient value to offset the "cost" involved.

For both of the above objections -- cost and decision delays -- it seems entirely possible that spending the money and expanding the decision process may actually result in savings and better projects, thus, producing positive rather than negative results.

A third objection may be based in the present structure of decision making. The agency already has a "citizen" board as representative of various public sectors. From one standpoint this may be quite adequate. The expansion in participation, rather than undermining this structure, should strengthen it. It should be so organized that it provides board members with more information than previously available about the acceptability of changes being suggested or about areas in which changes are needed.

INTRODUCTION

Since 1950, efforts at direct citizen involvement in governmental decision processes have been increasing. This has been evidenced particularly in such areas as Model Cities, urban planning and renewal, neighborhood control of schools, and more recently, in pollution control. Until quite recently, most of these involvement efforts have been directed at agencies whose decisions affected large numbers of persons; meant expenditures of large amounts of money; or, meant drastic and lasting modifications in the social and natural environments. These attempts to have a "say" in decisions have meant demonstrations, court cases, and many hostile exchanges, particularly through the mass media. The situation was well described and some of the basic causes identified by Reich in his discussion of the lack of an adequate means of planning (i. e. law of planning) in the United States. Reich saw much of the source of demonstrations as based on the inability of concerned citizens to find better ways to participate in agency decision processes.(3)

Since the late 1960s when Reich wrote, the formal and informal barriers to citizen participation in governmental decisions have been reduced somewhat. The general trend has appeared to be an opening up of decision processes in such a way that the outcomes should reflect more input from more publics. In a recent issue of its newsletter, the Conservation Foundation indicated that because of such things as congressional reform, open meetings, broadening of representation on advisory boards, etc., the expression of all public interests has been facilitated. (2) However, that public involvement is not exceptionally high is noted again and again. To some degree, this still represents the reticence of agency personnel to have others, outsiders, involved in the agency

activities. Citizens and citizen groups under this condition must "fight" for an opportunity to be heard and to have their views become a part of the data on which decisions are made, as well as part of the criteria on which evaluations which result in decisions are based. Thus, it does not appear that all agency officials have accepted the legitimacy of "public participation" as part of the activities of their agency. (2) Despite efforts, primarily at the federal government level, the meaning of the requirement that agency projects demonstrate an adequate level of public participation remains a question requiring further specification.

The other basic issue in broadening public participation in agency decision processes lies with the nature of the public itself. Participation requires some level of commitment which in turn requires knowledge and concern which is also dependent on awareness of the existence of and details about a problem. Because of the large number of problems which exist, the average citizen is not likely to be aware of or very concerned about all of them. He is more likely to concentrate his attention and activity in a very limited area. Generally, this can be said to relate to issues which he perceives as affecting him directly. Thus, there develops around each issue a public which is in varying degrees interested, concerned, and active. For any one issue, unless it has a general and intense impact, such as war, the majority of citizens are not involved. From the viewpoint of an action proponent, the greatest majority of persons would be considered apathetic about the problem with which the proponent is concerned. There would then seem to be two general problems which must be faced if <u>general</u> citizen participation in agency decisions is to become a reality -- one, the structure of

agencies, and two, the structure of concerns with which citizens must deal. It would appear that the former is more easily modified than the latter.

Why should the public participate in the decision process of various agencies? If one ignores the contention that they should not and distills the affirmative arguments, two basic themes develop. Without any intent to place them in order of importance, they are: 1) the "democratic" argument which in essence contends that this is the "proper" procedure to follow in a "democratic" society; and, 2) the "expedient" argument, i. e. that citizen participation is a necessary means to success of any agency or social change program.

The argument labeled "democratic" represents essentially the Jeffersonian democratic viewpoint which assumes that every citizen has, or ought to have, thought out for himself certain opinions; that he is omnicompetent; that he is public-spirited and always interested in the affairs of the community. Under conditions like this, the "public" could be relied on to aid in the decision making. Such conditions may have been found in the Athenian state or in some rural townships in the United States, but there is considerable doubt as to its adequacy in a complicated, technological, "expert" based civilization. In fact, the above characterization reflects the basic weakness of the assumption of general democratic participation. As a matter of fact, one might take the viewpoint expressed by Robert Michels (1) and argue that in such a society one would be likely to find an inevitable trend toward oligarchy. Michels, a German sociologist, saw the development of an oligarchical pattern as characteristic of almost all voluntary organizations. In his now famous "iron law of oligarchy" he contended that, "It is organization which gives

birth to the dominion of the elected over the electors, of the mandataries over the mandators, of the delegates over the delegators. Who says organization says oligarchy." (1, P. 401)

The experience of most people, as well as the studies of social scientists, tend to confirm Michels' generalization. In most nominally democratic voluntary organizations the oligarchy which occurs is an unintended consequence of organization and thus a problem.

It is generally held that the democratic decision process works best in relatively small units in which a large proportion of the citizenry can directly observe the governmental operation. Increased size, alone, involves the delegation of political power to professionals and the growth of bureaucratic institutions. Explanations of the continued existence of democratic decision activities in complicated industrial urban complexes have utilized the concept of pluralism. Exponents of this viewpoint call for adequate representation in the decision process of organized groups which represent the dominant interests of the community. Thus, it is thought that the decision process should involve all of the organized publics rather than relying solely on individual citizens or on a limited number of organized interest groups.

The Problem

The involvement of "the public" at some point in the agency decision process has long been required. Generally, this requirement has been expressed through the medium of the public hearing. Recently, considerable concern has been expressed about the adequacy of this mechanism for alerting and involving the public.

An opportunity to examine the awareness, concern, and participation aspects of public hearings arose with a program of upgrading of stream quality instituted by the North Carolina Board of Water and Air Resources through its Water Quality Control Committee. This is the agency responsible for controlling stream quality in the state.

The framework of water pollution control in North Carolina is based on stream classification for "best use", the assignment of water quality standards for each use, monitoring to determine compliance, and where necessary, enforcement through regulatory powers. Procedures for classification of streams in North Carolina include studies to determine the physical characteristics of water; character of bordering lands and "dominant economic interest or development"; and the extent of present use for public and industrial water supply, bathing, fish, or wildlife, transportation, fire prevention, power generation, and waste disposal. Prior to classification or reclassification, the Board of Water and Air Resources must give notice and conduct one or more public hearings. North Carolina law requires that notices must be given not less than twenty days before the hearing and shall be published at least once in one newspaper of general circulation in each county where affected waters are located. The classification of waters as to best usage establishes public goals and is a basic part of the water pollution control process. As used by a regulatory agency, stream classification is a function of public understanding, values, social concern, motivation, economic interests, group interests, political power, attitudes of professional staff and policy making officials, as well as other factors. The adoption of usage classifications has implications for resource allocations, public and private investment, and

the quality of the environment. Yet, as mentioned earlier, serious questions have been raised as to the adequacy of the administrative processes for eliciting public response, and until recently, very little work has been done to identify the limiting factors and propose better ways to approach public choice on matters of this type.

Agency policies which balance competing forces are considered as serving the "public" interest. However, because of the nature of the process, the extent to which the public itself can participate in or even be aware of the agency decision process is questionable. The problem begins with the process of notice, is exacerated by the nature of informational processes, and is demonstrated by the extent and selectivity of participation in public hearings. Thus, decisions made often reflect input from a limited number of special interests rather than the community as a whole forcing the agency to substitute what its professional staff "knows" is best for the community.

The Study

The primary concern of the project being reported is the problem awareness -- knowledge-participation sequence as applied to the general public. The previously mentioned program of stream classification modifications being carried out in North Carolina allowed an opportunity to examine this citizen awareness -- agency decision process. The Board of Water and Air Resources undertook to examine the classification of the streams in the state with the object of upgrading those whose quality was sufficient to justify a new classification. The process involved the development of a set of proposals by personnel of the Department of Water and Air Resources, their presentation at public hearings, the consideration of public hearing input and final decisions

by the Board of Water and Air Resources. Two types of reclassifications were involved. The first involved the deletion of the "E" class streams from the state's system and the second a set of regional hearings in which a general upgrading of many sections of streams was suggested.

In conjunction with the above hearings, the proposal was to contact a sample of the general public and ascertain their level of concern with pollution and their awareness of state agencies involved in pollution control and related activities. Of specific interest was their perception of the importance of the pollution problem, the position of pollution relative to other perceived problems, their awareness of the state water pollution control agency, and its program of stream reclassification.

This study reports the results of a series of surveys instituted in conjunction with hearings held by the North Carolina Board of Water and Air Resources as a part of their review of stream classifications throughout the State. The hearings, which began in 1971, were held in various regions of the State and completed in the Spring of 1973.

The Hearings

One statewide and three regional public hearings concerning this issue were held by the Pollution Control Committee during the period 1971 to 1973. The statewide hearing was held in Raleigh, North Carolina, January 7, 1971, to consider upgrading all the class "E" streams throughout the State.

The first of the regional hearings was held in Hickory, North Carolina, June 29, 1972. During this hearing reclassifications were proposed in segments of streams in the Broad, Catawba, French Broad, Hiwassee, Little Tennessee,

New, and Watauga River Basins. In the report that follows this will be referred to as the Hickory hearing. In effect, it covered streams in the Western Region of North Carolina. (See Map, Appendix 1)

The second regional hearing was held in Southern Pines, North Carolina, November 2, 1972, and involved proposed reclassifications of sections of streams in the Cape Fear, Lumber, and Yadkin-Pee-Dee River Basins. This hearing covered most of the Piedmont and part of the Coastal Plains Region. It will be referred to as the Southern Pines hearing. (See Map, Appendix 1)

The last of the regional hearings was held in Kinston, North Carolina, March 1, 1973, and involved changes in classifications of streams and segments of streams in the Roanoke, Chowan, Pasquotank, Tar-Pamlico, Neuse, and White Oak River basins. This hearing focussed primarily on the Northern Coastal Plains and Northern Piedmont Region. In this report it will be referred to as the Kinston hearing. (See Map, Appendix 1)

Notice

Before any reclassifications can be adopted, the Board is required by law (North Carolina Statutes, Article 21, Section 143:214.1) to "...give notice of its proposed action and ... conduct one or more public hearings with respect to any such proposed action...". Requirements are specified for notice and participation. Two basic forms of notice are required as indicated by the following:

(1) Notice of any such hearing shall be given not less than 20 days before the date of such hearing and shall state the date, time, and place of hearing, the subject of the hearing, and the action which the Board proposes to take. The notice shall either include details of such proposed action, or where such proposed action, as in the case of proposed assignments of

classifications to identified waters, is too lengthy for publication, as hereinafter provided for, the notice shall specify that copies of such detailed proposed action can be obtained on request from the office of the Board in sufficient quantity to satisfy the requests of all interested persons.

(2) Any such notice shall be published at least once in one newspaper of general circulation circulated in each county of the State in which the water area affected is located, and a copy of such notice shall be mailed to each person on the mailing list required to be kept by the Board pursuant to the provisions of # 143-215.4.

(North Carolina Statutes Article 21, Section 143:214.1)

Hearing Participation

There are essentially two ways in which interested parties may participate in these hearings as indicated in the following segment of the statute:

> Any person who desires to be heard at any such public hearing shall give notice thereof in writing to the Board on or before the first date set for the hearing. The Board is authorized to set reasonable time limits for the oral presentation of views by any one person at any such public hearing. The Board shall permit anyone who so desires to file a written argument or other statement with the Board in relation to any proposed action of the Board any time within 30 days following the conclusion of any public hearing or within any such additional time as the Board may allow by notice given as prescribed in this section.

(North Carolina Statutes, Article 21, Section 143:214.1)

It should be noted that the practice of notifying the Board in writing includes filling out a registration form at the hearing indicating if the person wishes to be heard. Each person present is given an opportunity to speak if he so indicates and also an opportunity to speak even if he did not indicate he wished to do so prior to the meeting.

Public participation normally occurs, except for points of clarification, after the proposed changes have been formally presented. The presentation generally includes maps of streams used in conjunction with the written proposals

to aid the audience in locating stream segments. Detailed copies of the proposed reclassifications are made available upon request prior to the hearings. Copies are also available at hearings for persons who need them. An effort is made to assure that persons present have the necessary information to "follow" the presentation.

As indicated, it is also possible to file a written statement or "brief" if one cannot be present or does not wish to issue a public statement at the time of the hearing. It is a general practice by some persons, organizations, and agencies to participate in the hearing but indicate that their position will be presented in detail during the 30 day period after the hearing. A number of reasons are offered. Some of the dominant ones are: that the lengthy, detailed statement would take too long to present; that the matter had just come to the persons attention and they were not prepared. In some of these cases, spokesmen for agencies and organizations indicate generally whether or not their organizations concur and in some instances no position is stated.

Hearing Results

Final Adoption and Assignment of Classification -- Upon completion of hearings and consideration of submitted evidence and arguments with respect to any proposed action of the Board pursuant to this section, the Board shall adopt its final action with respect thereto and shall publish such final action as part of its official regulations. When final action has been adopted and is published with respect to the assignment of classifications applicable to the identified waters of any one or more watersheds within the State, the Board shall likewise publish as part of its official regulations, the effective date for the application of the provisions of 143-215.1 and 143-215.2 to persons within such watershed or watersheds.

Boards' Power to Modify or Revoke -- The Board is empowered to modify or revoke from time to time any final action previously taken by it pursuant to the provisions of this part; any such modification or revocation, however, to be subject to the procedural requirements of this article. (1951, c. 606; 1957, c. 1275, s. 2; 1967, c. 892, s. 1.)

As indicated on the previous page and above, the Board of Water and Air Resources considers the various arguments and evidence, makes a decision, and publishes the results of its final action. Consideration of the issue begins thirty days after the hearing actually occurs. All recordings of activities at the hearing are transcribed, combined with correspondence concerning the subject changes and published in a Report of Proceedings Volume. Such volumes include in addition to the proceedings and correspondence mentioned previously, copies of rules, regulations, classifications, and standards for surface waters, pertinent laws, and copies of the legal notice. The enacted changes are generally published as a separate unit but included with the proceedings report.

The Study - General Approach to Data Gathering

The study consisted of a survey of households selected randomly from the most recent telephone directories available. Trained interviewers called these households during the evenings beginning with the hearings and continuing for a week afterwards. Evening calling was used to increase the probability that a male would be present to answer the telephone. Interviewers were instructed to talk with adults who answered or to ask for an adult if a child answered. They were to alternate requests for male and female adults. Respondents were then asked questions about their perception of the major problems we face and their knowledge of and participation in pollution control activities. If the phone was not answered after three attempts, the respondent was considered not available. If a person refused to answer, no pressure was exerted by the interviewer.

Telephone interviewing has both advantages and disadvantages as a data gathering technique. It is economical, it is useful with a structured questionnaire,

and it is fast in that the survey can follow in close proximity to the event of interest. This latter consideration was important for the study, since we wanted a measure of awareness of an event. Although telephones have certain advantages, there are also certain disadvantages -- the most important of which is the difficulty of contacting a representative sample of the population. Despite increased telephone saturation, there are still persons without phones and also persons whose phones are not listed. This has a tendency to bias the sample at the upper and lower ends of the socioeconomic continuum. In addition, there is some evidence that respondents find it easier to refuse to be interviewed by telephone than in a face to face situation. (4) This latter situation was particularly evident in this study. (See Appendix 2) It should be noted that since persons with telephones are likely to be more affluent than those without, the bias implied should mean persons interviewed might be expected to know more about issues, etc. Thus, the chance that a respondent might be knowledgeable is increased with this survey technique.

The "E" Stream Reclassification Hearing - Telephone Survey

Because of logistical problems arising out of the short time between project funding and the statewide public hearing to consider modification of the "E" classification, it was decided to concentrate the first telephone survey in one county. The hearing was being held in Raleigh and involved the reclassification of forty-four streams and segments of streams in thirty-two counties throughout the state. Since the hearing was to be held in Raleigh, the State Capital and county seat of Wake County and one of the stream segments being considered was located in Wake County, the survey was undertaken in that county.

Because of its political importance and the controversial nature of some of the proposals, it was hoped that awareness of the hearing might be as high among Wake County citizens as among citizens of the other affected counties.

The Study - Wake Survey

The study consisted of a survey of five hundred households selected randomly from the most recent telephone directory. Ten trained interviewers, using the approach previously outlined, called these households during the evenings beginning with the hearing and continuing for a week afterward. Completed interviews were obtained for 68 percent of the sample with the remainder either unavailable or refusing. The study sample consists of 340 respondents.

Results - Survey of Wake County Residents (Statewide "E" Hearing)

Respondents were asked to specify those problems they considered important. Ninety-six percent of the respondents indicated at least one problem. The major type of problem mentioned and the percent of respondents mentioning them is shown in Table 1.

Table 1. Major Type of Problem Specified

Problem	Respondents choosing Problem Number	Percent
Alcohol and Drugs	82	25.1
Poverty	106	32.4
War	126	38.5
Pollution	134	41.0

A wide variety of problems were specified by those who answered. At that point in time the respondents indicated that pollution and the war were major

causes of concern. Alcohol and drugs and poverty were also very important to those respondents. These four "stood out" in the array of responses obtained when the respondent indicated his own perception of problems.

When pressed to consider water pollution alone, and asked if water pollution is a major problem, 92.3 percent indicated it was. There was some evidence that air pollution was considered more important than water by the respondents. When asked: "Which do you consider the more immediate problem: water pollution or air pollution?" slightly more of the respondents considered air pollution as dominant.

Table 2. Most Important Pollution Problem

Type of Problem	Number	Percent
Water	96	30.6
Air	117	37.3
Both	101	32.1

How the subjects became aware of water pollution was the next major area explored. The two major sources of information was through their own experience of it or by reading about it.

Table 3. Source of Awareness Concerning Water Pollution

Source	Respondents Indicating Source Number	Percent
Individual experience	108	31.8
Newspapers and Magazines	106	31.2
Television	75	22.1
Other	20	5.9
Don't Know or No Response	31	9.1
Total	340	100.0

When pressed about their awareness of water pollution issues being discussed in the news media, 73.2 percent indicated they had been exposed to it with the newspaper as major type of media source. However, only slightly more than half (fifty-five point five percent) of those who responded felt that the news media provided adequate news on pollution to keep them informed.

Thus, it would seem that the general level of concern about pollution was fairly high. In order to gain information about the respondent's information about the State's role in pollution control we asked, "Does the State of North Carolina have a program to combat water pollution?" Almost 63 (62.7) percent did not know. Another 5.6 percent indicated there was no such program. And, 31.7 percent knew of such a program. It was not surprising, then, that 80.1 percent indicated they did not think the public is adequately informed on the State's role in water pollution control.

Those 107 persons who indicated that the State of North Carolina did have a program to combat pollution were asked to name the state agency responsible for the program. A wide variety of titles was forthcoming, ranging from the legislature to refining mills. Thirty-eight persons gave an answer. Of these, fifty percent used a variation of the title Board of Water and Air Resources. The next most frequently mentioned agency was Conservation and Development with twenty-nine percent. Of the persons who knew the State had a program of water pollution control, 11 (10.3) percent knew it was based on classification according to best usage.

Respondents were told the time and subject of the hearing and asked if they had known it had occurred. Thirty-one persons (9.2 percent) answered affirmatively and only one attended.

"E" Hearing - Notice

As required by law, notice of the hearing being held in Wake County was published within the specified time period in newspapers having general circulation in affected areas. Table 4 indicates the number, type, and circulation of the newspapers in which formal notice was published.

It should be recognized of course that many of these papers serve the same persons so that the circulation figures presented exaggerate the potential audience of the notice. They are offered as evidence of the extent of effort by the agency to notify the general public of the event.

An additional method used to alert people of an upcoming hearing is the mailing list maintained by the Department of Water and Air Resources. For this hearing the notice was sent to 328 persons or organizations whose names were present. The list varies widely in interests represented, including such categories as industries, engineering consulting firms. government agencies, citizen groups and individuals.

Table 4. Newspapers Publishing Legal Notices of Public Hearings Concerning "E" Reclassification Proposals Distributed by Publication Schedule, Circulation, and Regional Location

	Publication Schedule									
	Daily		5-6 Times/Wk.		2-4 Times/Wk.		Weekly		Total	
Region Served	No. of Papers	Circula.	No. of Papers	Circula.	No. of Papers	Circula.	No. of Papers	Circula.	No. of Papers	Circula.
Tid. W.	-	-	2	19,156	-	-	2	3,156	4	22,312
Co. Pl.	1	16,776	4	36,619	1	3,833	2	9,233	8	66,461
Pied.	4	430,898	4	50,226	4	26,181	3	7,000	15	514,305
Mnt.	-	-	2	57,661	1	9,456	2	8,400	5	75,517
Total	5	447,674	12	163,662	6	39,470	9	27,789	32	678,595

Attendance at "E" Hearing

The January 7, 1971, public hearing to consider "the classification of streams having segments heretofore classified 'E'" was held in Raleigh, North Carolina. Ninety persons are reported as attending by the proceedings report. Of these, 64 registered. Apparently the others were staff members of the Department of Water and Air Resources. One of the registrants gave an out-of-state address. The 63 in-state residents represented 20 of the 32 affected counties.

An analysis of the regional representation is shown in Table 5.

Table 5. Counties Represented at "E" Hearing Distributed by Regional Location

Region	Number of Counties: Included in Hearing	Number of Counties: Represented at Hearing	Percent of Relevant Counties Represented
Tidewater	4	1	25.0
Coastal Plains	8	2	25.0
Piedmont	15	13	86.7
Mountain	5	4	80.0
Total	32	20	62.5

The above table indicates the selectivity in attendance with higher representation from counties west of Raleigh than east of it. A county by county analysis indicated that the hearing drew heavily from Wake County with 20 of the 63 in-state residents from Wake County.

An analysis of the registration forms for data concerning organizational representation showed a predominance of government and commercial representation. News media were also well represented. The results of this categorization is shown in Table 6.

Table 6. Number and Percent of Registrants at "E" Hearing by Type of Representation

Affiliation	Number	Percent
Public Utility	2	3.1
County Government	12	18.8
Municipal Government	12	18.8
Commercial/Industrial	16	25.0
News Media	11	17.2
Civic Groups	1	1.6
Self-Citizen	6	9.3
Other	4	6.2
Total	64	100.0

It seems clear in the above that a number of publics are represented. As one might expect both from past experience with hearings and because of the uses of "E" class streams, representatives of the governmental and commercial/industrial categories were the dominant group at the hearings.

The newsworthiness of the event would seem to be reflected by the presence of 11 news media representatives. They represented radio, television, and newspapers from four Standard Metropolitan Statistical Areas in the Piedmont region -- Raleigh, Durham, Greensboro, and Charlotte.

In addition to direct participation in the "E" hearing, there are 15 letters entered as part of the record. Of these, 9 are dated before the hearing. These indicate an awareness of the hearing and largely constitute requests for reclassification of specific stream segments. The other 6 were received after the hearing. Five of these reactions to the hearings asked for reconsideration of certain proposals and cited evidence in support of the request. One letter reported a study by a young private citizen of the content of a stream and appealed for an upgrading of it. Ten of the 15 total letters came from representatives of various governmental units within the state, i. e. counties, towns or cities, conservation districts, etc.

The Regional Surveys - General

In conjunction with the three public hearings held in the Mountain, Piedmont, and Coastal Plains Regions of North Carolina, a survey was carried out of 1357 households in 21 counties. Counties were selected on the basis of the number of miles of affected stream they contained. Thus, the counties included in the survey were only those in the top half of the ranking of affected mileage of streams. This ranking had the effect of achieving a geographical dispersion and included most of the stream areas. It was hoped that this would maximize the probability that the respondents would be aware of any water pollution problems. Counties included in the surveys are shown in Appendix 1.

The study consisted of 1,700 households selected randomly from the most recent telephone directory available. Trained interviewers using the general approach previously outlined called those households during the evenings beginning with the hearings and continuing for a week afterwards. Completed interviews were obtained for 79.9 percent of the sample with the remainder either unavailable or refusing. The results reported here are based on responses from 1,357 respondents.

Results - Regional Hearing Surveys

Problem Awareness

In an effort to ascertain the specific problems which were considered as major by our respondents, we chose an unstructured question in which we asked them to specify the major problems for us: first, for the State and then their home county. As was expected, using this approach a wide range of problems was listed. It was also evident that the respondents varied in their ability or willingness to specify problems when asked to do so in this way. (Table 7)

Table 7. Respondents Who Indicated a Major Problem for North Carolina by Location of Regional Hearing

Hearing		Specified a Problem: Indicated Problem	Did Not Indicate Problem	Total
	N	298	94	392
Hickory	%	76.0	24.0	100.0
	N	364	55	419
Southern Pines	%	86.9	13.1	100.0
	N	436	112	548
Kinston	%	79.6	20.4	100.0
	N	1098	261	1357
Total	%	80.8	19.2	100.0

In order to determine problem primacy, respondents were asked to indicate which of the problems they considered most important. The four most frequently mentioned problems for North Carolina and the percent of respondents indicating them are shown in Table 8.

Table 8. Most Frequent Type of Problem Chosen and Percent of Respondents Mentioning Them by Hearing Location*

Hearing	Major Type of Problem Specified: Alcohol/ Drugs	Crime	Education	Pollution	Taxes
	118	50	50	151	65
Hickory	39.6	16.8	16.8	50.7	21.9
	193	80	76	196	109
Southern Pines	53.0	22.0	20.9	53.8	29.9
	171	77	101	97	172
Kinston	39.2	17.7	23.2	22.2	39.4
	482	207	227	444	346
Total	43.9	18.9	20.7	40.4	31.5

*Respondents were given an opportunity to mention a number of problems. Those included in the table were the most frequently mentioned. Because a respondent could mention more than one problem, the percentages reported may exceed a hundred.

As shown in Table 8, in general, alcohol and drugs were the dominant concern followed by pollution and environmental issues. However, some differences in concerns are evident between the first hearing (Hickory) and the third (Kinston). Whether this shift in the percent of respondents mentioning pollution as a major problem is a function of time or geographical area is not clear. Either, or both, explanations may be important since the national emphasis on environmental issues has apparently been reduced or alternatively the area covered by this survey is not perceived as suffering from problems of pollution.

The responses to the request to specify the one problem of those mentioned which was considered the State's most important problem are shown in Table 9. Here, it is noted that alcohol and drugs were considered the dominant problem by 18 percent of those responding. The two categories, pollution and taxes, are of particular interest in this table. The hearings are listed in order of occurrence. It would appear that the dominance of pollution as a problem declined and the importance of taxes and inflation rose over this period. However, because we are focussing on three different geographical areas and sets of respondents, this cannot be substantiated. However, the relative position of taxes and inflation, and pollution as problems are almost reversed when Western respondents (Hickory) are compared with those from the Coastal Plains (Kinston).

Major Problems - County

In order to determine if there were perceived differences in the ordering of problems between respondents, county of residence, and State problems, interviewees were asked to list what they considered major county problems. The same set of problems were listed as important but the distribution of responses varied.

Table 10 indicates the percent of respondents indicating at least one major county problem and Table 11 shows the distribution of responses by major category of specified problems.

Table 9. The Most Important Problems Mentioned for North Carolina Showing Percent of Respondents by Hearing Location

Hearing Location		Alcohol/ Drugs	Crime	Education	Pollution	Inflation and Taxes
	N	70	24	22	76	15
Hickory	%	27.6	9.4	8.7	29.9	5.9
	N	97	31	23	61	30
Southern Pines	%	30.3	9.7	7.2	19.1	9.4
	N	73	20	29	22	64
Kinston	%	24.6	6.7	9.8	7.4	21.5
	N	240	75	74	159	109
Total	%	27.6	8.6	8.5	18.3	12.5

Table 10. Percent of Respondents Who Indicated A Major Problem For Their County of Residence by Hearing Location

Hearing Location		Specified a Problem Yes	No	Total Respondents
	N	298	94	392
Hickory	%	76.0	24.0	100.0
	N	348	71	419
Southern Pines	%	83.1	16.9	100.0
	N	394	154	548
Kinston	%	71.9	28.1	100.0
	N	1040	319	1359
Total	%	76.5	23.5	100.0

Table 11. Percent of Respondents Mentioning Most Frequent Types of County Problems by Hearing Locations

Hearing Location		Alcohol/ Drugs	Crime	Education	Pollution	Taxes
	N	72	33	57	161	60
Hickory	%	24.2	11.0	19.1	54.0	20.1
	N	154	67	68	176	76
Southern Pines	%	44.3	19.3	19.5	50.6	21.8
	N	125	60	101	83	122
Kinston	%	31.7	15.2	25.6	21.1	30.9
	N	351	160	226	420	258
Total	%	33.8	15.4	21.7	40.4	24.8

For those persons who replied, both alcohol/drugs and pollution stand out as dominant problems with taxes ranking third. Within this general pattern, the pollution problem at county level was mentioned by a higher proportion of respondents for the Hickory and Southern Pines Hearings. More Kinston respondents mentioned the problems of taxes and alcohol/drugs than pollution problems. Thus, the same pattern was shown for county problems as for state problems: i. e., fewer respondents mentioned pollution problems for the latter (Coastal Plains) hearing.

When respondents were pressed to indicate which was the most important of the problems they had mentioned, the following results were obtained.

Table 12. The Most Important Problem for County of Residence Showing Percent of Respondents by Hearing Location

Hearing Location		Alcohol/ Drugs	Crime	Education	Pollution	Taxes
	N	46	15	17	88	19
Hickory	%	17.1	5.6	6.3	32.8	7.1
	N	83	22	25	61	22
Southern Pines	%	25.5	6.8	7.7	18.8	6.8
	N	51	13	40	21	31
Kinston	%	21.2	5.4	16.6	8.7	12.9
	N	180	50	82	170	72
Total	%	21.6	6.0	9.8	20.4	8.6

As Table 12 indicates, most of the respondents chose alcohol/drugs and pollution as the major county problem. Within the general pattern, however, hearing variations occurred with pollution being a much more important county problem in the western survey than in the other two areas.

Concern with Stream Pollution - North Carolina

In order to focus the respondent's attention on a specific issue, he was asked: "In your opinion, is stream pollution in North Carolina at the present time a major problem or a minor problem?" The majority of the respondents thought it is a major problem (Table 13) but only for the Western Region (Hickory) was the problem labeled as major by three-fourths of the respondents. As before, a lower percentage of respondents in the eastern area (Kinston) saw North Carolina's stream pollution as a major problem. In this instance their responses were quite similar to those of the Southern Pines respondents.

As indicated in Table 14, slightly more than half of those responding thought stream pollution in North Carolina was about the same as in other states. Again, variation is indicated by hearing since only for the Hickory hearing do more than half of the respondents see North Carolina's situation as similar to other states. Those who indicated the situation was not the same tended to consider the condition of streams in North Carolina as better than that of other states (Table 15). Slightly more than eighty percent of the respondents saw the situation as better. This pattern was particularly strong in the area covered by the Kinston hearing.

Table 13. Respondents' Perception of Pollution Problem in North Carolina's Streams by Hearing Location

Hearing Location		Extent of Problem		
		Major	Minor	Not a Problem
	N	289	86	5
Hickory	%	76.1	22.6	1.3
	N	208	141	39
Southern Pines	%	53.6	36.3	10.1
	N	251	201	47
Kinston	%	50.3	40.3	9.4
	N	748	428	91
Total	%	59.0	33.8	7.2

Table 14. Distribution of Responses about Similarity of North Carolina's Stream Condition to that of Other States by Hearing Location

Hearing Location		Stream Pollution - N. C./Other States Similar	Dissimilar	Total
	N	227	112	339
Hickory	%	67.0	33.0	100.0
	N	185	187	372
Southern Pines	%	49.7	50.3	100.0
	N	185	260	445
Kinston	%	41.6	58.4	100.0
	N	597	559	1156
Total	%	51.6	48.4	100.0

Table 15. Distribution of Responses Concerning Relative Condition of Streams When Compared with Other States by Hearing Location

Hearing Location		Stream Pollution - N. C./Other States Better	Worse	Total
	N	89	23	112
Hickory	%	79.5	20.5	100.0
	N	141	29	187
Southern Pines	%	75.4	24.6	100.0
	N	161	30	191
Kinston	%	84.3	15.7	100.0
	N	391	82	473
Total	%	82.7	17.3	100.0

Stream Pollution - County

Table 16. Perception of Stream Pollution Problem in Respondent's County By Hearing Location

Hearing Location		Extent of Problem Major Problem	Minor Problem	No Problem	All Respondents
	N	230	141	6	377
Hickory	%	61.0	37.4	1.6	100.0
	N	109	218	71	398
Southern Pines	%	27.4	54.8	17.8	100.0
	N	154	259	76	489
Kinston	%	31.5	53.0	15.5	100.0
	N	493	618	153	1264
Total	%	39.0	48.9	12.1	100.0

Respondents tended to indicate that stream pollution was a problem in their county although except for respondents to the first (Hickory) survey, they tended to see it as a minor problem. Six of ten respondents to the Hickory survey saw county stream pollution as a major problem. This pattern was reversed for the other two hearings. A smaller proportion of the respondents to the Hickory survey denied the existence of a problem than was the case for the other two surveys. (Table 16)

Summary of Awareness of Pollution Problems

From the survey results reviewed up to this point, one may conclude that pollution - environmental issues appeared to rank fairly high among the concerns expressed by the respondents. Other concerns overshadowed this one, specifically alcohol and drug usage. This seemed to be the case regardless of concern about state or county problems. The respondents did not generally perceive the stream pollution situation as being severe although they did recognize the existence of a problem. There was a tendency to see the pollution problem as being worse elsewhere. North Carolina's problem was perceived as less severe than that of other states and the respondent's home county's problem as less severe than that of the state. Some variation in this perception was present by region of residence but not enough to reverse the general pattern.

Since industry and municipalities were identified as the major source of pollution by most of the respondents, (Table 17) they were asked if industries, municipalities, and others who discharge wastes into streams and the air should be taxed according to the amounts they discharge.

Table 17. Attributed Cause of Stream Pollution for State and County by Hearing Location

Hearing Location		Industry State	Industry County	Sewage State	Sewage County	People State	People County	Farms State	Farms County	Other State	Other County	Total State	Total County
	N	191	113	55	86	45	53		1	12	27	303	280
Hickory	%	63.0	40.4	18.2	30.7	14.9	18.9		.4	4.0	9.6	30.1	35.3
	N	174	83	67	68	41	60	5	5	42	48	329	264
S. Pines	%	52.9	31.4	20.4	25.8	12.5	22.7	1.5	1.9	12.8	18.2	32.6	33.2
	N	204	83	40	37	52	52	17	34	63	44	376	250
Kinston	%	54.3	33.2	10.6	14.8	14.3	20.8	4.5	13.6	16.8	17.6	37.3	31.5
	N	569	279	162	191	138	165	22	40	117	119	1008	794
Total	%	56.4		16.1		13.7		2.2	1	11.6		100.0	;00.0

As indicated by Table 18, the respondents endorsed this form of taxation indicating that users should be held responsible for paying the costs of their activities.

Table 18. Percent of Respondents Endorsing a Tax For Discharge of Materials Into Streams

Hearing Location		Users Taxed for Discharge Yes	Don't Know	No	Total
	N	293	28	63	384
Hickory	%	76.3	7.3	16.4	100.0
	N	342	36	28	406
Southern Pines	%	84.2	8.9	6.9	100.0
	N	413	73	49	535
Kinston	%	77.2	13.6	9.2	100.0
	N	1048	137	140	1325
Total	%	79.1	10.3	10.6	100.0

Another way to indicate degree of concern might be the willingness of persons to absorb the costs of reducing the level of pollution. Therefore, respondents were asked if they would be willing to pay additional taxes to reduce stream and air pollution.

Table 19. Percent of Respondents Indicating a Willingness to Pay Additional Taxes to Solve Pollution Problem

Hearing Location		Willingness to Pay Extra Taxes Yes	Don't Know	No	All Respondents
	N	240	72	69	381
Hickory	%	63.0	19.9	18.1	100.0
	N	224	60	124	408
Southern Pines	%	54.9	14.7	30.4	100.0
	N	293	64	165	522
Kinston	%	56.1	12.3	31.6	100.0
	N	757	196	358	1311
Total	%	57.7	15.0	27.3	100.0

From the pattern of responses in Table 19, one could assume a high level of concern exists for many of our respondents since almost 58 percent of those who responded indicated that they would be willing to pay additional taxes. However, this willingness varied by area. For two of the surveys slightly more than three out of ten respondents indicated that they definitely would not be willing to pay more tax to reduce the problem.

Knowledge of Control Program

One of the questions about public participation in resolution of public issues revolves around the amount of knowledge which members of the general public exhibit. This is either pointed out as a justification for non-participation or as evidence that organizations and agencies are not active enough in keeping people sufficiently informed that they make a worthwhile contribution.

In these surveys we were interested in the extent to which the respondents were knowledgeable about programs of the State of North Carolina aimed at controlling stream pollution. Table 20 indicates that the involvement of the State in control activities does not appear to be generally known, since 62 percent of those who answered indicated either that they did not know of such a program or that there was no such program.

Table 20. Knowledge of State's Control Program by Regional Reclassification Hearing

Hearing Location		N. C. Has Program	N. C. Does Not Have Program	Did Not Know	Total
		144	30	214	388
Hickory	%	37.1	7.7	55.2	100.0
	N	148	16	250	414
Southern Pines	%	35.7	3.9	60.4	100.0
	N	215	41	276	532
Kinston	%	40.4	7.7	51.9	100.0
	N	507	87	740	1334
Total	%	38.0	6.5	55.5	100.0

Table 21. Evaluation of Effectiveness of North Carolina's Stream Pollution Control Program

Hearing Location		Very Effective	Effective	Not Very Effective	Ineffective	Very Ineffective	Total
	N	8	29	48	9	8	102
Hickory	%	7.8	28.4	47.1	8.9	7.8	100.0
	N	12	64	29	5	3	113
Southern Pines	%	10.6	56.6	25.7	4.4	2.7	100.0
	N	21	84	64	15	3	187
Kinston	%	11.2	44.9	34.2	8.0	1.6	100.0
	N	41	177	141	29	14	402
Total	%	10.2	44.0	35.1	7.2	3.5	100.0

Among the respondents who indicated that North Carolina has a program of stream pollution control, its effectiveness was considered positively. (Table 21) Over half of those responding to this question considered it to be an effective program. This pattern was strongest for the Southern Pines and Kinston surveys. Results show that a more negative view was held by respondents to the Hickory hearing survey. In this case, only 37 percent of the respondents had a positive reaction to the program.

An attempt to indicate more specific knowledge about responsibility for the program appeared to indicate that among those who knew or thought that a program of pollution control existed as a State activity, few could name the responsible agency.

Of the 507 respondents, only 170 (33.5%) designated any agency. Of these, 49 (28.8%) gave an answer which could reasonably be interpreted as correct. A variety of titles were used, as one might expect, but it is interesting to note that for many respondents the Environmental Protection Agency was an agency of the State.

Because the State's program of stream pollution abatement is based on a classification system which involves assessment of the "best usage" of a stream before the stream is classified or reclassified, it is an integral factor in the understanding of the program. It is likely that a person who was very knowledgeable about the State's program would know on what the classification system was based, but unlikely that it would be general knowledge. Such proved to be the case, only a small proportion of those interviewed responded to the statement: "The State of North Carolina uses a classification system for controlling pollution of streams and rivers in this area. On what is this based?"

Table 22 indicates the pattern of answers received. As with other open-ended questions, a variety of labels was used so that the "miscellaneous category" was relatively large. It included such responses as: size of stream, etc. Probably more important, however, is the fact that only a small percent of those interviewed would even hazard a guess as to the basis of the classification scheme.

Table 22. Respondents Perception of the Basis of North Carolina's Stream Pollution Control System

Hearing Location		Best Usage	Amount of Pollution	Industry Needs	Miscellan.	No Response	Total
	N	7	6	4	10	365	392
Hickory	%	1.8	1.5	1.0	2.6	93.1	100.0
	N	2	4	3	6	404	419
Southern Pines	%	.5	1.0	.7	1.4	96.4	100.0
	N	4	7	2	12	523	548
Kinston	%	.7	1.3	.4	2.2	95.4	100.0
	N	13	17	9	28	1292	1359
Total	%	19	1.2	.7	2.1	95.1	100.0

Knowledge of Stream Reclassification Hearing

As a final check on respondents knowledge about control activities by the State, respondents were told that the Board of Water and Air Resources had held a public hearing concerning the reclassification of streams in the area. They were told when and where it was held and then asked if they had previously known about the meeting. As indicated in Table 23, approximately 9 percent indicated they had known about it.

Table 23. Respondents Knowledge of Stream Reclassification Hearing by Location of Regional Hearing

Hearing Location		Knew of Hearing Yes	No	No Response	Total
	N	29	356	7	392
Hickory	%	7.4	90.8	1.8	100.0
	N	35	380	4	419
Southern Pines	%	8.4	90.7	.9	100.0
	N	59	475	14	548
Kinston	%	10.8	86.7	2.5	100.0
	N	123	1211	25	1359
Total	%	9.1	89.1 ~~98.1~~	1.8	100.0

Of those who knew of the hearing, most found out about it from the newspaper or by conversations. Sixty-one of the 107 persons (57.0%) who responded to this query indicated they knew of the hearing because of the newspaper. This pattern seemed consistent for all regions except that held in Kinston. In this instance, television ranked second to newspaper as a source of information. Of those who knew of the hearing, only three attended.

Regional Reclassification Hearings

Notice

As mentioned previously, a formal notice is required by law. This must appear within a specified time period prior to the date of the hearing and include subject, time, and place of the hearing. The notice is to be published in at least one paper of general circulation in the county or counties affected by the proposed changes. Such notice procedure was followed for each of the three regional hearings being reported. Table 24 indicates the number, type, and circulation of newspapers in which legal notices were published for each hearing. A copy of the notice is included in Appendix B. The circulation data in Table 24 in most likelihood represents a number of duplications since the same individuals may subscribe to or buy one or more of the types of papers listed. However, it is indicative of the notification process and the potential for alerting the general public. It would appear to show a saturation of the areas in terms of the publication of legal notices in newspapers in order to comply with the legally required "general circulation" concept.

Table 24. Publication Schedule for Newspapers in Which Legal Notice Was Printed for Each Reclassification Hearing

Hearing Location		Publication Schedule: Daily	5-6 Times a Week	2-4 Times A Week	Once A Week	Total
Hickory	N	2	8	5	14	29
Circulation		175,978	161,109	43,550	47,544	428,181
Southern Pines	N	6	12	9	16	43
Circulation		597,213	235,475	70,724	52,206	955,618
Kinston	N	4	12	9	12	37
Circulation		363,514	259,755	63,534	151,465	838,268
Total	N	12	32	23	42	109
Circulation		1,136,705	656,339	177,808	251,215	2,222,067

The Regional Hearings - Mailing List

Also, as required by law, a mailing list is maintained by the Department of Water and Air Resources. Prior to a hearing, copies of the legal notice and the proposals to be considered in the hearing are mailed to those persons on the mailing list who would be affected or who are considered as interested in the issue. The mailing lists applicable to the hearings being considered in this study contained 2212 names. These are names of organizations, agencies, state and county officials, as well as private citizens who were on the official mailing list. An analysis of the mailing list in terms of affiliation of persons receiving notice is noted in Table 25. The list of categories reflected in this table was established from titles and organizational affiliations indicated on the mailing list, a copy of which was made available by the Department of Water and Air Resources. Where no official title was available or affiliation noted, the person was listed in the miscellaneous individuals and groups category. Thus, the two officially prescribed notice activities, publications, and mailing list represent an extensive effort toward raising the awareness of at least a part of the population in the areas affected. An additional activity, which is part of the pre-proposal stage of

this process and may be interpreted as a part of the notice process is that of consulting "knowledgeable persons" in the target area. This involves contacting agency personnel whose activities make it possible for them to assess the quality of the stream and the reasonableness of the classification assigned or proposed. Although this is a restricted activity in its scope, it does represent a potential notice mechanism in that at least some persons become aware that an action is being considered.

Table 25. Affiliation of Persons Notified by the Mailing List of the Department of Water and Air Resources for each of Three Regional Hearings

Organizational Affiliation		Kinston	Southern Pines	Hickory	Total
Municipal	N	343	272	181	796
Officials	%	39.7	33.6	33.6	36.0
County	N	218	151	106	475
Officials	%	25.3	18.6	19.7	21.5
State Gov't	N	44	56	38	138
(Non-Elect)	%	5.1	6.9	7.0	6.2
State Gov't	N	75	96	55	226
(Elected)	%	8.7	11.9	10.2	10.2
Federal	N	8	7		15
(Elected)	%	.9	.9		.7
Federal	N	6	34	2	42
(Non-Elected)	%	.7	4.2	.4	1.9
Private Co.	N	68	152	128	348
Industry	%	7.9	18.8	23.7	15.7
Agri. Assoc.	N	23			23
Commodity	%	2.7			1.0
N. C. Soil	N	45	35	24	104
Conservation	%	5.2	4.3	4.4	4.7
Ed'l	N		1	3	4
Inst.	%		.1	.6	.2
Misc. &	N	33	6	2	41
Priv. Citi.	%	3.8	.7	.4	1.9
or Groups					
Totals	N	863	810	539	2212
	%	39.0	36.6	24.4	100.0

The Regional Hearings -- Correspondence

As mentioned previously, in addition to personal participation in hearings, correspondence may be entered as part of the record and become part of the basis of deliberation. If letters are received prior to a hearing and deal with the changes proposed, they are often read to the audience. If they come later, they are automatically included in the proceedings volume.

The volume of correspondence increased as the hearings moved east. The Hickory hearing drew 36 letters; 18 before and 18 after the hearing. Five of the 9 letters received before the hearing indicated information about proposed changes. The 9 received after the hearing were diverse in content including resolutions from counties, an exchange with EPA, concurrence reports from TVA and Tennessee's Department of Public Health, etc. None protested the proposed changes.

The Southern Pines hearing drew 48 letters, 30 of which were dated prior to the hearing. Most of these were requests for reclassification although almost half were in opposition to the recommended changes. The changes were seen as threats to agriculture, particularly in Duplin County. Eighteen letters indicated that farmers in the area should be left alone and that the streams were fine in their present condition. In addition, two petitions bearing 75 names were submitted in protest of the proposal to upgrade segments of streams from a "D" to a "C" classification.

There were 78 letters received in connection with the Kinston hearing. Of these, 70 were written before the hearings were held. The majority of this correspondence dealt with requests for reclassification and information from other agencies about the proposals. Six of the letters commended the Board for its concern and efforts and 2 letters were of a critical nature.

Attendance

When persons are present for the hearing, they are asked to register and indicate whether or not they wish to be heard. All persons attending are supposed to be registered in order that attendance may be maintained as a part of the hearing record. Because of the nature of the hearing process, the number of persons involved, the length of the hearings, and the number of persons who attend only for a specific segment of the issue, it is likely that the official registration represents a slight undercount. That this was only slight was ascertained for these three hearings by tallying those in the audience at various points in time with the official records. The counting problem is compounded by the length of time covered by the hearing. For these hearings the number officially registered was virtually the same as those counted as the hearing started. However, in some cases as many as one-third did not return after lunch break. With this caveat in mind, an analysis was made of organizational affiliation of those registering at each of the hearings. The results of this are indicated in Table 26.

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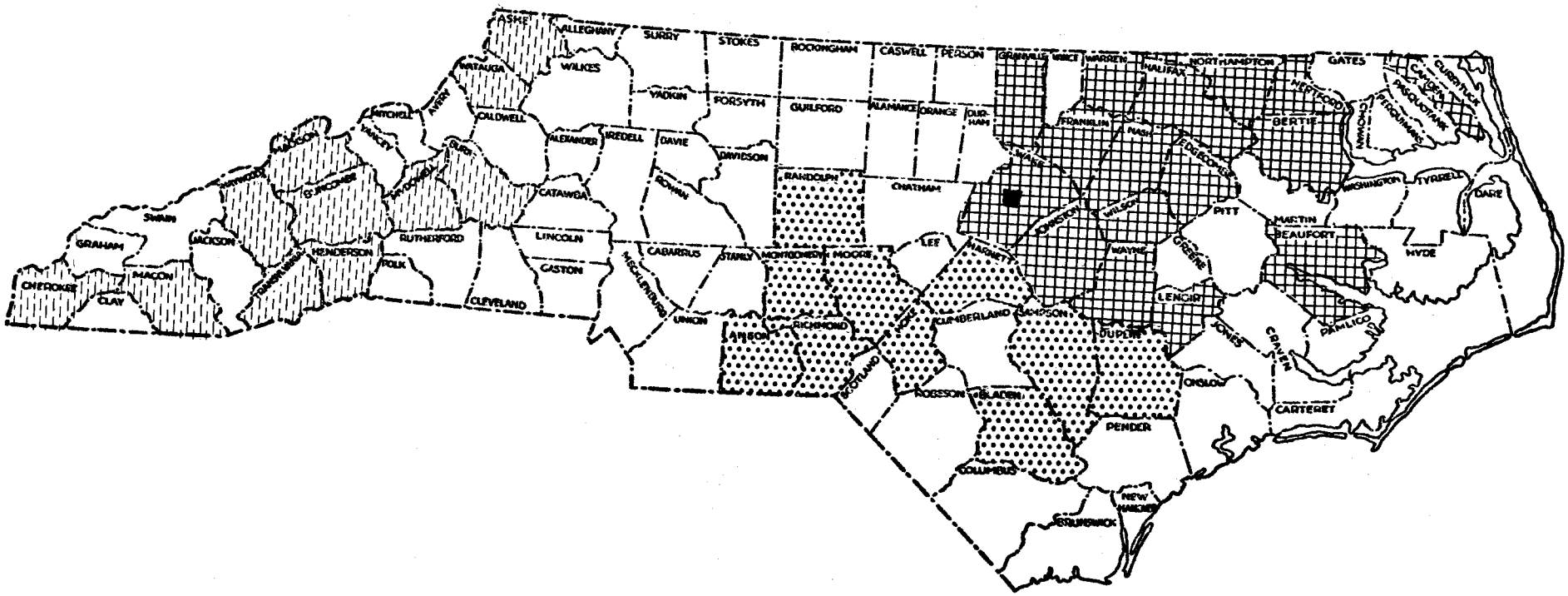
APPENDIX

Appendix 1

Figure 1. Map Showing Counties Included in Survey



Appendix 2

Characteristics of Respondents

Hearing Location	Sex of Respondents Male	Female	No Information
Hickory	238	150	4
Southern Pines	244	172	3
Kinston	281	265	2
Total	763 56.1	587 43.2	9 .7

Hearing Location	Marital Status of Respondents Married	Single	Other	No Information
Hickory	305 77.8	27 6.9	54 13.8	6 1.5
Southern Pines	367 87.6	24 3.7	26 6.2	2 .5
Kinston	443 80.8	43 7.9	60 10.9	2 .4
Total	1115 82.1	94 6.9	140 10.3	10 .7

Hearing Location	Employment Status Working	Housewife	Retired	Student	Unemployed	No. Infor.
Hickory	229 58.4	69 17.6	70 17.8	9 2.3	3 .9	12 3.0
Southern Pines	274 65.4	61 14.6	50 11.9	6 1.4	4 .9	24 5.7
Kinston	335 61.1	101 18.4	55 10.0	7 1.3	10 1.8	40 7.3
Total	838 61.7	231 17.0	175 12.9	22 1.6	17 1.3	76 5.5

Hearing Location		Occupation of Employed Respondents: Prof. Tech.	Farm, Owner	Clerical Sales	Craftsmen & Operatives	Service Workers	Laborer & Domestics
Hickory	N	70	18	31	26	31	53
	%	30.6	7.9	13.5	11.4	13.5	23.1
Southern Pines	N	74	23	41	68	39	29
	%	27.0	8.4	15.0	24.8	14.2	10.6
Kinston	N	105	32	64	66	30	38
	%	31.3	9.6	19.1	19.7	9.0	11.3
Total	N	249	73	136	160	100	120
	%	29.7	8.7	16.2	19.1	11.9	14.3

Hearing Location		Education Level of Respondents: Grade School	Some H. S.	H. S. Grad.	Some Coll./ Bus. Sch.	Coll. Grad./ Post. Grad.	No Infor.
Hickory	N	66	64	119	60	75	8
	%	16.8	16.3	30.4	15.3	19.2	2.0
Southern Pines	N	91	98	117	58	49	6
	%	21.7	23.4	27.9	13.8	11.8	1.4
Kinston	N	99	96	162	96	86	9
	%	18.1	17.5	29.6	17.5	15.7	1.6
Total	N	256	258	398	214	210	23
	%	18.8	19.0	29.3	15.7	15.5	1.7

Interviewer's Name _____ Phone No. _____

Hello. This is (interviewer's name). I am calling for the Department of Sociology at North Carolina State University in Raleigh. We are conducting a study about some of the major problems which face our nation, state and community today.

We would appreciate a few minutes of your time to get some of your ideas about the kinds of problems we face and how well you think we're handling them.

1. There has been a great deal said about the kinds of problems we face in North Carolina today. What do you think the major problems are: (INTERVIEWER: Probe for four (4))

   A. _____

   _____

   B. _____

   _____

   C. _____

   _____

   D. _____

2. Of these which is the most serious problem? _____

   _____

3. In your opinion, what are the major problems in _____ County at present?

   A. _____

   _____

   B. _____

   _____

   C. _____

   _____

   D. _____

   _____

4. Of these, which is the most serious problem? _____

   _____

In recent months a great deal of concern has been expressed about pollution of the streams in this state.

5. In your opinion, is stream pollution in North Carolina at the present time a major or a minor problem?

____ Major

____ Minor

____ Not a problem

6. In your opinion, is stream pollution in North Carolina about the same as in other areas?

____ Yes

____ No

IF NO, ASK:

Is it better _____; Worse ____

7. In your opinion, is stream pollution in _____ County at the present time a major or a minor problem?

____ Major

____ Minor

____ Not a problem

8. What do you consider the major sources of stream pollution? (INTERVIEWER NOTE: TRY TO GET THREE FOR EACH RESPONSE.)

	North Carolina	Your County
1.		
2.		
3.		

9. Does the State of North Carolina have a program to combat this problem?

____ Yes

____ No

____ Don't know

IF NO OR DON'T KNOW, SKIP QUESTION 10 AND 11.

10. What agency in North Carolina is primarily responsible for the program?

_____

11. How effective is the present program in controlling stream pollution?

____ 1. Very effective

____ 2. Effective

____ 3. Not very effective

____ 4. Ineffective

____ 5. Very ineffective

12. The State of North Carolina uses a classification system for controlling pollution of streams and rivers in this area. On what is this based?

_____

____ Don't know

13. To whom would you report pollution of a stream in your area?

NOTE: IF A PERSON'S NAME IS GIVEN, GET AGENCY AFFILIATION.

_____

____ Would not report it

____ Don't know

14. Would you be willing to pay additional taxes to reduce stream and air pollution?

____ Yes ____ Cannot decide

____ No ____ No response

15. Do you feel that industries, municipalities and others who discharge wastes into streams and the air should be taxed according to the amounts they discharge?

____ Yes

____ No

____ Don't know

One way in which citizens can be involved in State agency decision processes is through public hearings.

16. Have you attended a public hearing held by any state agency in the last two years?

____ Yes IF NO, SKIP TO QUESTION ~~17~~ 18

____ No

17. What agency held it?

_____

_____

_____

18. Thursday morning, June 29th, the Board of Water and Air Resources held a public hearing to consider upgrading classification of streams in this area.

A. Did you know of this hearing? ____ Yes

____ No

IF YES:

1. How did you learn the hearing was to take place? _____

_____

2. Did you attend? ___ Yes

____ No

19. Do you know anyone who is presently serving on the Board of Water and Air Resources?

____ Yes IF YES, GET NAMES.

____ No _____

_____

_____

20. Do you think the public is adequately informed on the State's role in pollution control?

____ Yes

____ No

____ Don't know

21. Does the news media provide adequate news about pollution to keep you informed?

____ Yes

____ No

22. Would you like to see more or less coverage of pollution problems by the media?

____ More

____ Less

NOW IF I MIGHT GET SOME INFORMATION ABOUT YOU.

1. Sex (This can be filled out by interviewer from voice)

   ____ Male

   ____ Female

2. Are you married? ____

   ____ Single (PROBE FOR SPECIFIC STATUS)

   ____ Other

3. What is your occupation?

   _____

   _____

   _____

4. What is the highest grade you attended in school?

(1) ____ Grade school
(2) ____ Some high school
(3) ____ High school graduate
(4) ____ Trade or business school
(5) ____ Some college
(6) ____ College graduate
(7) ____ Post graduate
(8) ____ Refused to respond

5. Do you belong to any organization or clubs?

____ Yes

____ No

IF YES, LIST.

_____

_____

_____

Have any of these organizations had programs dealing with water pollution?

____ Yes

____ No

IF YES, WHAT ORGANIZATION?

_____

6. Do you subscribe or read regularly any:

(A) Newspapers ____ Yes ____ No

(B) Magazines ____ Yes ____ No

IF YES, LIST.

_____

_____

_____

THANK YOU VERY MUCH.