

NATIONAL WATERWAYS STUDY-CORPS, INTERAGENCY AND PUBLIC INVOLVEMENT

DRAFT



AUTHORITY FOR THE NATIONAL WATERWAYS STUDY

The Congress authorized the National Waterways Study (NWS) and provided the instructions for its conduct in Section 158 of the Water Resources Development Act of 1976 (Public Law 94-587):

The Secretary of the Army, acting through the Chief of Engineers, is authorized and directed to make a comprehensive study and report on the system of waterway improvements under his jurisdiction. The study shall include a review of the existing system and its capability for meeting the national needs including emergency and defense requirements and an appraisal of additional improvements necessary to optimize the system and its intermodal characteristics. The Secretary of the Army, acting through the Chief of Engineers, shall submit a report to Congress on this study within three years after funds are first appropriated and made available for the study, together with his recommendations. The Secretary of the Army, acting through the Chief of Engineers, shall upon request, from time to time, make available to the National Transportation Policy Study Commission established by Section 154 of Public Law 94-280, the information and data developed as a result of the study.

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NATIONAL WATERWAY STUDY
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INTRODUCTION

The National Waterways Study (NWS) was authorized by Congress in 1976 (see P.L. 94-587 inside front cover). The Secretary of the Army, acting through the Chief of Engineers, was charged with the task to review the existing waterway system, evaluate its capability to meet existing and future needs, assess alternative improvements and make recommendations to Congress. NWS management at the Corps' Institute for Water Resources, faced with the challenge of developing and conducting a successful study of such a broad scope, realized considerable amounts of data and information would need to be drawn from both Corps and non-Corps sources.

Corps of Engineer divisions and districts would be needed to supply comprehensive data on the status of the existing waterway system. Information on types and volume of traffic, lock characteristics, dredging, navigation hazards and many other factors would need to be obtained. Critical input from throughout the Corps would be required from the development of the plan of study through completion of the final report.

Such a large scale study would also need to be coordinated with other agencies involved in such activities as water resources planning, transportation and environmental quality. The efforts of related ongoing studies would have to be monitored and drawn from where needed. Experience from many agencies would have to be solicited in developing and conducting the study.

It was also apparent that the national framework of a such a study, focusing on a topic--waterways--which has an impact on a wide variety of interest groups, signaled the need for mechanisms which would bring the project into contact with as wide an audience as possible. Many different interest groups throughout the general public would need to be informed and their expertise utilized.

NWS management responded by developing comprehensive techniques for Corps, interagency and public involvement in the project. First, division coordinators were enlisted to obtain support for the study from Corps divisions and districts nationwide. Second, an NWS Steering Committee was formalized to bring together executives from other Federal agencies and the Corps' Office of the Chief of Engineers (OCE) to provide overall policy guidance and expertise for the development and conduct of the study. Third, a program of general public involvement was designed so that NWS would reach a diverse audience among other Federal and state agencies, business and industry, academia, trade associations, the media, and any other groups with an interest in the national waterways.

In the following sections the mechanics of each of these efforts and the results obtained will be briefly described.

ROLE OF THE CORPS DIVISIONS AND DISTRICTS IN THE NATIONAL WATERWAYS STUDY

To organize planning efforts, and gather and analyze the vast quantities of data needed for a study, the NWS staff enlisted the aid of U.S. Army Corps of Engineer divisions and districts throughout the country, as well as components of the Office of the Chief of Engineers (OCE). The Corps' 11 divisions and 36 districts were asked to help in the NWS effort by providing information essential to form a data base for the study, and by frequently assisting throughout the course of the study in detailed reviews of draft technical findings and evaluations submitted by NWS contractors and final products prepared by NWS staff at the Institute for Water Resources.

Division Coordinators

A representative in each division was designated during the initial planning process for the study. The division coordinators, generally branch chiefs, became an integral part of the study planning and design, and served as essential conduits for the collection and relay of data and information from district level sources. They continued to be deeply involved during each phase of study activities, such as technical research, evaluation of the existing system, strategy development and conclusions. Frequent meetings were held between the NWS staff and division coordinators, particularly during the initial planning stages. All division coordinators were also provided with letters, informal news updates and NWS quarterly reports to stay abreast of study activities, in addition to very frequent individual communications with IWR staff.

Meetings with the division coordinators commenced with a briefing in December 1977 in Alexandria, Virginia. (For a summary of all meetings of NWS staff with Corps field and OCE representatives, see the list in Table 1.) At the initial meeting, division coordinators discussed the NWS Plan of Study, and suggestions for areas of field input were solicited.

The division coordinators were asked to assist in focusing field resources in the following areas.

1. Description of the waterway system, including physical characteristics of the system and waterway users;
2. Review of future waterway traffic;
3. Analysis of waterway system capability to serve projected traffic;
4. Review of alternative plans to accommodate the projected traffic;
5. Participate in the study recommendations.

Many of the comments from the field at the December 1977 meeting concerning the Plan of Study were subsequently incorporated.

TABLE 1
MEETINGS AND PRESENTATIONS
FOR
CORPS FIELD AND OCE REPRESENTATIVES

DATE	SUBJECT	NON/IWR PARTICIPANTS	LOCATION
Nov 77	NWS Plan of Study	CWP	Wash., DC
Nov 77	Formation of NWS Steering Committee	CWP, CWR, CWO, CWE, BERH	Wash., DC
Dec 77	Initial division coordinators meeting on Plan of Study and role of field in NWS	Division Coord. and CWP	Alex., VA
Jan-Feb 78	Field briefing on NWS and review/comment on Plan of Study	Division and District staffs	Vicksburg, MS Atlanta, GA Chicago, IL San Francisco, CA
Feb 78	Revise study plan, evaluate anticipated field role	Division Coord.*	Ft. Belvoir, VA
Feb 78	Regional Task Force Meeting on Data Collection	Div and Dist Operations and Planning representatives including Coord.	Atlanta, GA
Mar 78	NWS Presentation to District Engineers, Water Resources Planning Seminar	All District Engineers	Leesburg, VA
Apr 78	Regional Task Force Meeting on field data collection, Plan of Study and budget	Division Coord. and Dist. Planning and Operations Reps.	Chicago, IL
May 78	Meeting on field data collection	Dist. Staff	New Orleans, LA
Jun 78	Meeting of Division Coordinators to go over status: inventory, NWS maps and public involvement	Division Coord * IWR	
Jun 78	Public Meeting	OCE reps., Div. Coord. General Public	Wash., DC
Aug 78	Capability Assessment Workshop	Division Coord.	IWR
Sep 78	Navigation Cost Assignment	CWP	Wash., DC
Oct 78	Engineering and Environmental: potential WES support	Contractors, WES Staff	Vicksburg, MS
Nov-Dec 78	Chiefs of Planning meetings: discussion of NWS contract, scope and final report outline	Division Chiefs of Planning, CWP	Wash., DC
Jan 79	Draft study process, reviews.	Division Coord.	Ft. Belvoir, VA
Mar 79	Capability Methodology: key inputs to capability analysis, alternative tools, future tasks. Two meetings.	Division Coord.	Alex., VA
Mar 79	Atlanta Workshops: Review and identification of data sources; technical research delineation	Division Coord. and planning and operations reps; trade assns; other agencies	Atlanta, GA
Apr 79	Strategy development for NWS	CWR, SAD, Contractors	Ft. Belvoir, VA
May 79	Brief Director of Civil Works on status of NWS including Workplan.	CWZ-A, and CWZ-B	Wash., DC

DATE	SUBJECT	NDN/IWR PARTICIPANTS	LOCATION
Jun-Aug 79	Interview program	ALL CONUS Div., WES and CRREL	ALL CONUS Div. WES and CRREL offices
Jul 79	General Staff Briefing on NWS status	Chief of Engineers and his staff	Wash., DC
Jul 79	Traffic Forecasting Techniques	OCE Planning Div. and Contractors	Wash., DC
Sep 79	Status of NWS, review of contractor technical work	Div. Coord.	Ft. Belvoir, VA
Sep 79	Strategy development work sessions	CWO,CWE, CWR, CWP	Wash., DC
Dec 79	Presentation for field on contractor's preliminary technical findings	Div. Coord. OCE Division reps	Ft. Belvoir, VA
Dec 79	Regional Public Meetings for presentation of contractors' preliminary technical findings	General public, Division Coord. other fields reps; contractors	Wash., DC Chicago, IL Portland, OR New Orleans, LA
Jan 80	Corps and Public Technical Workshops	Div. Coord. General Public, contractors, OCE reps.	Ft. Belvoir, VA
Jan 80	Briefing on NWS integration process and study overview	Chiefs of Planning, CWP	Dallas, TX
Mar 80	Briefing on NWS for Corps Planning Associates	BERH Planning Associates	Ft. Belvoir, VA
Apr 80	National Waterways Roundtable: Focused on a variety of topics including waterways history, regional development, technology and the future	Selected Corps participants, academia, other government agencies	Norfolk, VA
Jun 80	Briefing on NWS Scenario and Strategy Development	OCE Div. Chiefs	Wash., DC
Jul 80	Waterway Science and Engineering Meetings on topics of locks, channel design/river training, dredging and season extension	Selected participants from Corps, industry, academia, contractors	Vicksburg, MS Chicago, IL
Sep 80	Briefing on the Evaluation of the Present Waterways System	Div. Coord. OCE reps, contractors	Arlington, VA
Nov 80	Meeting on the evaluation of the contractors' Strategies for Actions	Div. Coord. other Div. and Dist. personnel, reps. from OCE, OSA, Contractors	Ft. Belvoir, VA
Nov 80	Regional Public Meetings on the Evaluation of Strategies	Div. and Dist. reps., General Public	Arlington, VA St. Louis, MO Portland, OR
Jul 81	Briefing on the NWS Conclusions and Recommendations	Div. Coord., Div. and Dist. reps., OCE reps., General Public	Arlington, VA
Sep 81	Meet division coordinators and representatives regarding their concerns and comments on Draft Final Report	Div. Coord., Div. and Dist. reps.	Ft. Belvoir, VA

All divisions were then briefed on the revisions during January and February 1978 at selected division offices, and then at a joint meeting at IWR. The stage was thus set at the district and division level for frequent and intense participation in the National Waterways Study over the next several years.

NWS Inventory

The next major task of the division coordinators was assisting with the extraction and organization of data for the NWS Inventory. This process required several months, and modifications and updates have occurred throughout the course of the study. Vast quantities of data were drawn from all the districts and developed into a data base maintained by the ADP Center of the Corps' North Central Division. The inventory compiled a wide array of navigation-related data into a single computer base for use by NWS Corps and contractor staffs. Inventory data include:

- o type of project, authorized purpose and current actual usage
- o primary agency of responsibility
- o construction information and physical and commercial characteristics
- o lock data
- o dredging volumes, and dredging and other O&M costs

The NWS inventory became a primary source of information for the contractors' technical research and the description and evaluation of the existing waterway system. The computerized data base was subsequently made accessible to all districts for information and data modification purposes.

Field Interview Program

One of the major initial activities of the prime contractor involved a comprehensive interview program with all Corps CONUS division offices and selected Corps laboratories. Advance materials describing the needs of each contractor specialist were distributed, followed by a very detailed scheduling of personnel for interview purposes. At each CONUS division office (POD met with SPD), and at the Waterways Experiment Station (WES) and the Cold Regions Research Laboratory (CRREL), a briefing was given by an IWR management team member outlining the purpose of the meeting and of NWS itself. Division, district, WES and CRREL representatives in turn made presentations on their respective facilities and activities, major navigation and related problems, and available reports and literature.

A very useful part of these meetings occurred with a break-out into technical groups for information gathering purposes. The Engineering, Planning and Operations branches from both division and district offices met with the contractors and IWR/NWS staffs at each of these meetings. These lengthy and detailed meetings facilitated the critical transfer of the wealth of experience and background from the Corps division and district offices for National Waterways Study purposes. This was a crucial phase for the NWS objective of understanding and describing the existing system, its problems and needs, and the potential solutions.

Technical Research Review

Once the prime contractor obtained data and information through the inventory and field interviews, products of the contractors' technical research efforts began to be submitted. Field review of draft contractor products was sought, beginning with the Workplan and continuing through the contractors' final report. Division coordinators reviewed contractor products themselves and, depending on the subject matter, arranged for additional division or district review.

Widespread review by the field helped to minimize inaccuracies or erroneous information in the contractor reports. This was especially useful for site-specific and detailed information which would be more familiar to division or district personnel than to IWR reviewers.

For the draft final reports from the contractor under the eight technical elements, the evaluation of the present waterways system, and the evaluation of alternative strategies, virtually every district and division was encouraged to participate in the review. Construction-Operations and Planning divisions were involved at the district level. Numerous individuals in the Policy, Planning, Engineering and Operations Divisions at OCE were also brought into the review process, as were individuals at WES. Comments were then consolidated by division, OCE and WES coordinators and submitted to IWR for incorporation into the Corps' response to the contractor. Again, tight scheduling required an intensive review effort by the field and OCE for each of the contractor reports. The field review period for each document was less than a month, and often several documents would be distributed for review simultaneously.

Meetings

Numerous meetings were held throughout the course of the study to gain guidance and input from experts throughout the Corps (see Table 1). Communications with selected individuals from the field and OCE were an almost daily occurrence with respect to one or another aspect of the study. Larger meetings involving the division coordinators and other individuals from the field and OCE were held periodically, usually in conjunction with study milestone points, such as the presentation of the contractors' preliminary technical findings and the evaluation of the present system. Such meetings provided a useful forum to gain simultaneous reactions and comments from throughout the field as well as providing the opportunity for the contractors to entertain field questions directly.

The division coordinators often participated in NWS public meetings as well, and in a number of instances provided essential logistics assistance through photographic support and by arranging meetings held in different locations around the country. Regional public meetings often drew significant field participation that might not have been included in meetings held solely in the Washington area, thus they provided an additional vehicle for gaining greater input from both the public and Corps field offices.

The Public Involvement Time Line, presented in Figure 1, provides an overview of field, interagency and public participation in the National Waterways Study. The time line helps illustrate the range and intensity of division, district and OCE involvement in the NWS. The review of contractor submissions are not adequately reflected on this time line since the review of technical working papers was spread continuously from mid 1979 through 1981. These were in addition to the completed draft technical reports. An intense field effort was demanded in all cases due to the volume and detail of many of the contractor products.

INTERAGENCY COORDINATION FOR THE NATIONAL WATERWAYS STUDY

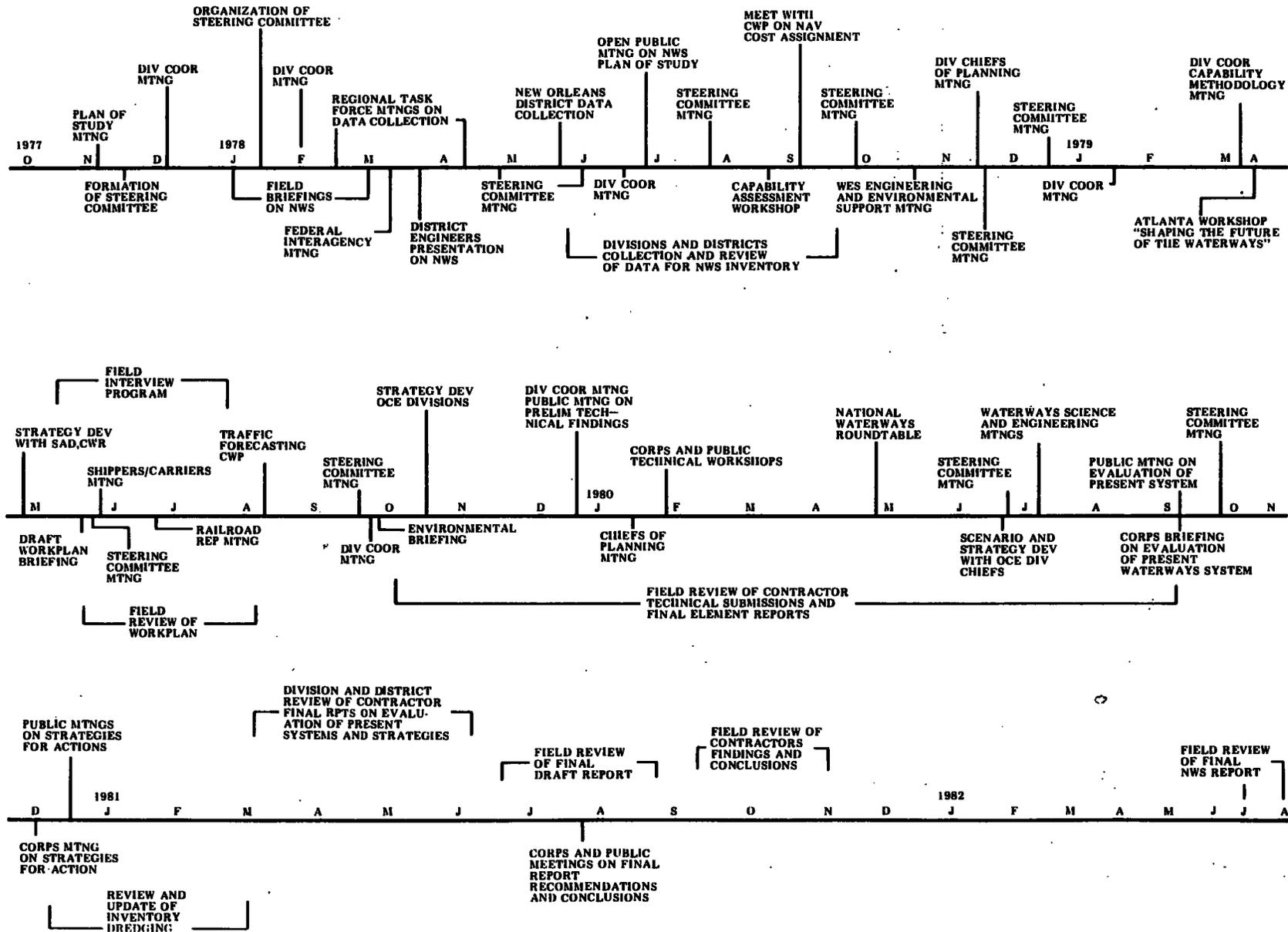
The Steering Committee was formed to provide policy guidance, technical consultation, and interagency coordination for the National Waterways Study. Under the leadership of the NWS Study Director, the Deputy Director of Civil Works of the U.S. Army Corps of Engineers, various Corps elements and several Federal agencies were enlisted in support of the study. Within the Corps, Steering Committee members included:

- o Chief, Planning Division, Office of the Chief of Engineers
- o Chief, Office of Policy, Office of the Chief of Engineers
- o Chief, Engineering Division, Office of the Chief of Engineers
- o Chief, Construction-Operations Division, Office of the Chief of Engineers
- o Director, Institute for Water Resources
- o Technical Director, Board of Engineers for Rivers and Harbors

Other agencies which participated in the NWS Steering Committee were:

- o U.S. Department of Transportation
- o National Transportation Policy Study Commission
- o Council on Environmental Quality
- o Maritime Administration, U.S. Department of Commerce
- o U.S. Department of the Interior

FIGURE 1
CORPS, INTERAGENCY AND PUBLIC ACTIVITIES TIME LINE



The NWS Steering Committee met periodically throughout the study in order to review the progress of research efforts and to provide guidance for successive phases of the project. Meetings were particularly frequent in the early plan formulation stages as the study design and composition were developed. (Table 2 lists the Steering Committee Meetings by date and primary topics of discussion.)

The Steering Committee yielded valuable support in obtaining data from other agencies, coordinating with various ongoing studies, and in providing essential planning and policy guidance for a national level study.

TABLE 2
NWS STEERING COMMITTEE MEETINGS

<u>Date</u>	<u>Principal Topics</u>
20 January 1978	Organization of Committee; plans for interagency involvement
28 February 1978	Overview and Plan of Study; membership and role of other Federal agencies
17 April 1978	Interagency coordination and role in study
7 June 1978	Plans for initial public meeting; mailing list; data sources; methodology development
26 July 1978	Contracts underway; review of proposals for prime contract; U.S.G.S. cartographic work
19 September 1978	Definition of the waterway system; preparation of a legislative history; outline of proposed public involvement activities
15 November 1978	Draft Report outline; inventory of the existing system and U.S.G.S. mapping efforts; presentation on U.S. Department of Transportation S.205 (User Charge) study
7 December 1978	Discussion of possible study components such as intermodal factors. User charges and ports; status of contracting efforts
17 May 1979	Completion of NWS waterway system inventory; review of NWS maps; plans for upcoming meetings with specialized audiences (shippers/carriers; railroads); review of Workplan
6 September 1979	Reviews of related ongoing studies ("User Charge" Study, Mid-America Ports Study); status of technical research
25 June 1980	Contractor presentation of scenario and strategy development; review of draft technical element reports; map of waterborne energy commodity flows; public meeting results
16 September 1980	Completion of NWS technical studies; workshops on Waterway Science and Engineering; review of the existing waterway system; environmental content of NWS; remaining schedule

A PROGRAM FOR GENERAL PUBLIC INVOLVEMNT IN THE NATIONAL WATERWAYS STUDY

Purpose and Design

The National Waterways Study Public Involvement Program was designed to gain visibility for the project by making a large audience aware of it and of the activities which are incorporated by it, and further to provide the opportunity for members of this audience to ask questions, voice comments and supply new information concerning aspects of the study.

The public involvement approach that was selected signaled a departure from traditional methods of planning, conducting and completing a study through the draft report stage, then presenting the draft findings and conclusions to the public. An alternative course was selected for the National Waterways Study in which public involvement was incorporated as an ongoing process throughout the study and all key meetings preceeded the draft report. By this method the study sought to gain public feedback and reaction at crucial "milestone" points in the project. "Milestones" occurred at the end of principal phases of the study, such as the completion of the contractors' technical research, the evaluation of the existing waterway system, the evaluation of alternative strategies for actions to meet perceived waterway needs, and finally, study findings and conclusions.

By maintaining public contact on a frequent and interactive basis, NWS was able to evaluate public reactions and incorporate useful reaction until the study draft reports were completed. Ongoing incorporation of public comments and new information minimized disruption to the study design and schedule. This methodology was designed to avoid the complications associated with failing to gain public reaction until the study draft reports were completed. By incorporating public comment and new information incrementally, NWS sought to minimize the need for major adjustments or re-evaluations -- "returning to the drawing board" -- which may occur when a study is fully drafted prior to presentation to the interested sectors of the general public.

Informing the Public

The NWS public involvement program incorporated a number of mechanisms by which to establish public contacts and generate feedback to help improve the project. The study progress, from the initial planning and development through the findings and conclusions, have been documented on a regular basis through the publication and wide distribution of seven NWS Information Bulletins. The public has also been kept informed through open public meetings, through specialized technical forums, through numerous briefings by NWS staff of specialized audiences, and by the publication and distribution of other study materials, such as the contractors' preliminary findings and his draft technical element reports. The materials available to the public and how to acquire them have been noted periodically in the bulletins, in special notice mailouts, and through handouts at NWS public meetings.

Distribution List

One of the first needs for a successful public involvement program was to target a public with an interest in the study effort. In this way news releases and other study products could find their way into the hands of people who would use them. The NWS mailing list was therefore compiled with a focus on a broad range of waterways-related interests. Included were: members of Congress; numerous individuals in Corps divisions and districts; primary Federal agencies involved in water and transportation; state governors' offices and waterways-related state agencies; regional river basin and waterways commissions; commercial waterway shippers and carriers; other related business interests; the news media and trade journals; environmental organizations; railroads; local port authorities; schools of engineering and other academic institutions; numerous trade associations; and various other agencies, organizations, corporations and individuals with an expressed interest in navigable waterways.

The NWS mailing list was initially derived from a list supplied by the Public Affairs Office of the Corps' Office of the Chief of Engineers (OCE). This original list was edited in consideration of the navigation orientation of the National Waterways Study. At the same time, additions to the list were made from around the country based on suggestions by NWS coordinators from various Corps division and district offices familiar with local waterway interests.

The resulting NWS mailing list contained over 3,600 entries. Fully computerized on the Boeing system and accessible from Fort Belvoir, additions, deletions and corrections could be easily made. The initial mailing list grew substantially during the course of study, due primarily to numerous requests from individuals and organizations who shared an interest in commercial navigation and wished to be kept informed of the study's progress.

Bulletins

Seven NWS Information Bulletins were compiled, published and then distributed using the NWS mailing list. Additional copies of the bulletins were distributed on request and at public meetings. (A complete list of the bulletins and a brief outline of their contents can be found in Appendix 1.)

These bulletins, printed periodically since the study was initiated in Fiscal Year 1978, contained information about findings to date, recounted past meetings and briefings and announced pending ones, discussed activities of NWS contractors, and noted what study materials were available to the public, as well as other occasional features related to commercial waterways and their use.

Numerous requests for NWS materials and further information about the study resulted from the distribution of the bulletins. Several articles appeared documenting milestone points in the progress of the study, such as the completion and findings of the technical research phase or the evaluation of the existing system. Such articles often promoted a new surge in public

interaction through letters or phone calls concerning study developments. For example, after the distribution of the June 1981 bulletin, over 200 requests were received for additional information or materials concerning the study.

The bulletins also provided a vehicle by which the public could be informed that many of their comments on the study were being examined seriously and incorporated when appropriate. Articles appeared, generally after a public meeting, which highlighted important questions or concerns raised by the public with respect to NWS. Such issues were studied and evaluated by the Corps NWS staff, in consultation with the contractors, and a number of them resulted in important modifications or incorporation of new information into the study design and process. Articles in subsequent bulletins discussed these modifications and elaborated on their effects.

Fact Sheets

In addition to the seven Information Bulletins, three National Waterways Study fact sheets were prepared and distributed. The fact sheets summarized principal findings to date in the study effort such as highlighting traffic forecasts for total waterborne commerce and for several major commodities.

The first fact sheet appeared in October 1980, and then an updated version was prepared in April 1981. The third was released in June 1982 and touched on the major study findings and conclusions. All were made available to interested people through meetings and upon request.

Each fact sheet briefly explained the background of NWS and the findings of major phases of the study. Waterborne tonnage figures for 1977 and 2003 projections were discussed by waterway reaches and by major commodity groups. The projections were paired against evaluation of waterway system traffic handling capability to determine shortfalls in lock capacity and the tonnage not accommodated under the present system.

The fact sheets further detailed the contractors' alternative strategies for future waterway actions, the costs involved, and the implications of each with respect to tonnages accommodated on the navigation system in the future.

The Corps framework from the draft final report was presented in the third fact sheet along with significant institutional policy implications of study findings and conclusions. For the public, the fact sheets provided convenient summarized information about the study and its major findings and conclusions.

Meetings and Presentations

One of the most useful tools used in the National Waterways Study to present developments and receive comments was through the holding of meetings and presentations for the general public and specialized audiences. In addition, members of the NWS staff were invited to speak before various organizations on many occasions.

General Public Meetings

NWS sponsored numerous public meetings throughout the course of the project in locations from Washington, D.C. to New Orleans, Louisiana to Portland, Oregon. A complete list and description of NWS public meetings and presentations for specialized audiences is shown in Table 3. (For a list of public meeting attendees, see Appendix 2.) The map in Figure 2 illustrates the broad geographic coverage of meetings and presentations on the National Waterways Study.

Like the Information Bulletins, these meetings have provided useful forums to present developments in the study, including findings to date, current research activities, and future plans. But perhaps the greatest benefit of the public meetings was been the opportunity for on-the-spot feedback from participants. Questions, comments and suggestions voiced at public meetings, through subsequent phone calls, or submitted in writing by meeting participants, have provided valuable and sometimes crucial information for the project effort.

The study held six meetings which were oriented toward the general public. Some of these meetings were on the same topic, but held in multiple locations in order to gain broader, national input from a wide variety of participants. For example, meetings to present the contractors' preliminary findings from their technical research were held in four locations across the country -- east, south, central and west.

The public meetings have provided many useful comments and new information for the study effort. Data for study projections was enhanced, new or anticipated commodity flows identified, and errors or erroneous statistics in the NWS presentation were brought to the attention of the study staff.

Holding public meetings in several locations brought out interesting and useful regional variations in public reactions to the same presentations. While a few of the same questions or comments were voiced in more than one of the regional meetings, variations in topics of primary concern were evident.

Such localized reactions illustrate both the unique character of many individual waterways, as well as the utility of not confining public meetings to a single location (i.e., Washington, D.C.) when conducting a study which is national in scope.

Briefings for Specialized Audiences

The National Waterways Study has generally sponsored two types of public meetings -- the open forum, just discussed, and briefings oriented toward the interests of specialized groups with waterway concerns. While the open forum setting was useful for bringing together a broad spectrum of waterway interests, this same spectrum tended to exclude very detailed discussions of specific topic areas. Questions and comments generally reflected the diverse interests of the attendees, so no individual topic areas could be discussed at length in the meetings, although follow-up letters or conversations with individual participants were common.

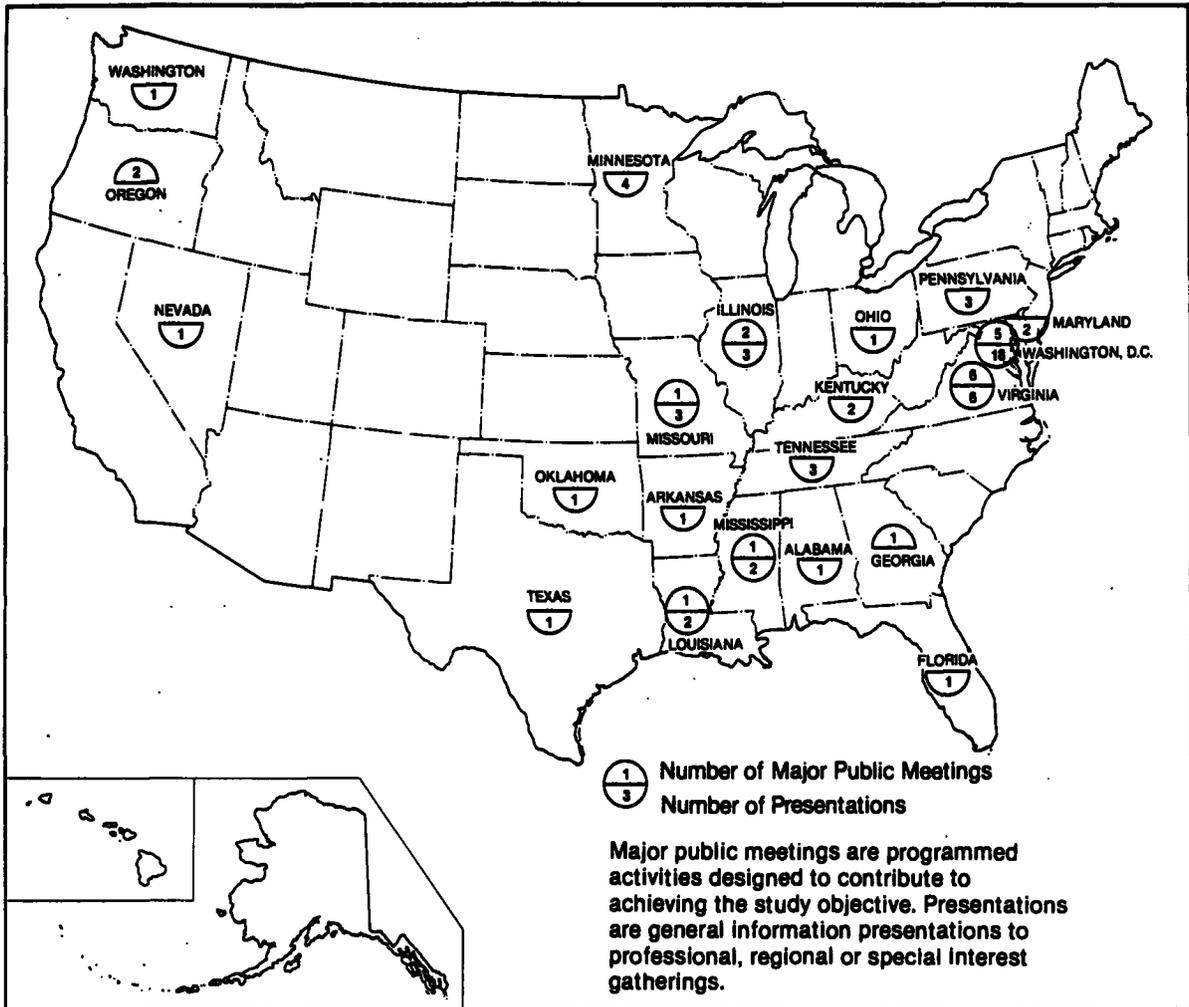
Table 3

NATIONAL WATERWAYS STUDY
PUBLIC MEETINGS AND PRESENTATIONS FOR SPECIALIZED AUDIENCES

Type of Meeting	Date	Subject	Participants	Location
1. Federal Interagency	3/24/78	Introduction of NWS to other Federal agencies; request for input into Plan of Study.	Representatives of various Federal agencies.	Wash., DC
2. Public Meeting for Plan of Study	6/22/78	Presentation of NWS preliminary Plan of Study; solicitation of questions and comments.	General public, including water transportation industry, other industries, Federal agencies, members of congressional staffs, trade associations, academia, and others.	Wash., DC
3. Shaping the Future of the Waterways	3/28-29/79	Workshop to aid in the review and identification of data sources for NWS; suggestions for areas of technical research for study.	Corps, other Federal agencies, state agencies, national organizations, industry and selected experts.	Atlanta, GA
4. Shippers and Carriers	5/24/79	Presentation of NWS Plan of Study and solicitation of industry help in providing necessary data and information.	Members of shipping and water carrier industry and trade associations.	Wash., DC
5. Railroad Representatives	6/14/79	Briefing on NWS, techniques for commodity forecasting, and general overview of study plan.	Railroad industry representatives and railroad trade associations.	Wash., DC
6. Environmental Briefing	9/11/79	Briefing for representatives of environmental interests on NWS and how study will deal with environmental aspects of navigation.	Environmental groups and organizations, related Federal and state agencies, other interested individuals.	Ft. Belvoir, VA
7. Regional Public Meetings on NWS Preliminary Findings	12/11/79 12/12/79 12/14/79 12/18/79	Presentation of NWS contractors' preliminary findings and forecasts of waterway traffic through 2003, including major increases in coal and grain movements.	General public (similar to #2).	Wash., DC Chicago, IL Portland, OR New Orleans, LA
8. Public Technical Workshops	1/30/80	General meetings and workshop sessions on the technical elements of NWS, including methodologies involved and preliminary findings.	General public.	Ft. Belvoir, VA
9. National Waterways Roundtable	4/22-24/80	Presentation of papers and discussions on historical, current, and future aspects of the waterway system.	Corps, other governmental agencies, industry, academia, trade organizations.	Norfolk, VA
10. Waterway Science and Engineering Sessions	7/1-2/80 7/7/80	Review sessions by panels of experts on NWS contractor products concerning dredging, river training/channel design, lock design, and season extension.	Largely Corps, some representation of industry, academia and trade associations.	Vicksburg, MS Chicago, IL
11. Evaluation of the Present Navigation System	9/4/80	Presentation of contractors' preliminary evaluation of the existing waterway system. Forecasts of future traffic use were compared with capability analysis of the existing system.	General Public.	Arlington, VA
12. Development and Evaluation of Alternative Strategies	11/13/80 11/18/80 11/19/80	Presentation of the contractors' four alternative strategies for dealing with waterway system problems as identified in the <u>Evaluation of the Existing Waterway System</u> report.	General Public.	Arlington, VA St. Louis, MO Portland, OR
13. Final Report Conclusions	7/21/81	Presentation of the Corps' draft final report on preliminary conclusions and framework plan. Framework identifies problems, sequences solutions, and specifies investment level.	General Public.	Arlington, VA

FIGURE 2

PUBLIC INVOLVEMENT ACTIVITIES BY STATE



In order to facilitate more detailed discussions of specific facets of NWS, several briefings were held for key audiences with an interest in waterways and in the NWS findings and recommendations. Three of these are highlighted below:

Shippers and Carriers Meeting: This presentation early in NWS helped to set the stage for implementation of the Plan of Study. In addition to briefing representatives of commercial waterway shippers, carriers and their trade associations on relevant elements of NWS, the attendees were also invited to participate actively in the study. Their assistance and input was requested to supply data and information crucial for analyzing existing facets of waterborne commerce and anticipated developments in the industry. The cooperation of these representatives was essential to conducting the series of interviews with the waterway industry incorporated in the NWS contractors' workplan.

Railroad Representatives Meeting: The purpose of this meeting was to elaborate on aspects of the National Waterways Study of interest to the railway industry and its trade associations and publications. It was emphasized that NWS was a water transportation study and that detailed analysis of other modes was not feasible considering the study scope and resources. Participants were asked to help in supplying data and information concerning the railroads in order to help develop the framework for analyzing water transportation as component of the total transportation picture.

Briefing for Environmental Interests: With a scope that encompasses all the nation's inland, coastal and Great Lakes commercial waterways and ports, the magnitude of areas of potential environmental concern was very significant. NWS therefore sought to address environmental concerns with particular diligence throughout the project. As part of this effort, and to reinforce other environmentally oriented NWS activities, a briefing was held for representatives of organizations, publications and government agencies with specific environmental concerns. Participants at the briefing were given an overview of the study including objectives, scope and analytical framework, then a more detailed presentation was made on specific environmentally oriented aspects of the study. Several of the people representing environmental organizations and Federal agencies -- such as EPA -- offered to cooperate with NWS by supplying available data and information which might be of use in the study effort. (Appendix 3 displays invitations, attendees and a summary of the briefing for environmental interests.)

Presentations before Organizations

Another important means of gaining broad based feedback for NWS has been through frequent briefings of other organizations and agencies on the progress and findings. The study manager, Mrs. Arlene Dietz, gave numerous presentations on NWS, and other staff members gave occasional briefings as well. Such briefings often led to follow-up requests for study publications and draft reports, which in turn occasionally resulted in review comments with new insights and additional data sources. (A list of major briefings given by the National Waterways Study staff before other organizations is provided in Appendix 4.)

Presentations on NWS have been given before a wide variety of audiences with diverse fields of interests. Among the organizations briefed have been trade associations for the waterways carrier industry, for major waterborne commodities, and for the dredging industry. Presentations on the National Waterways Study have also been made before representatives other Federal agencies, regional commissions, and state officials. In addition delegations from other nations, including the People's Republic of China, have heard briefings on NWS. The study has also received attention through presentations and papers at professional societies and symposiums such as Transportation Research Forum, Transportation Research Board, American Water Resources Association and American Society of Civil Engineers. These groups have provided excellent forums for bringing NWS to the attention of many individuals in the commercial waterborne commerce, transportation and construction industries. Such contacts often resulted in new sources of information useful to the NWS effort, in addition to wider dissemination of the products of NWS research.

NWS and the Environmental Community

In addition to sponsoring the briefing for environmental interests, the NWS public involvement program sought to involve the environmental community in as many of the study's public activities as possible. The NWS mailing list, which includes many environmentally oriented organizations, journals and government agencies at both the state and Federal levels, was used to distribute announcements and bulletins noting each upcoming NWS open public meeting. Special invitations, either by telephone or by mail, were also made before a number of the later NWS meetings detailing findings and/or conclusions. Many of these invitations were directed at environmental interest organizations and agencies and also to various components of the news media in the form of press releases.

The National Waterways Study also made copies of its draft technical element report, "Analysis of Environmental Aspects of Waterways Navigation," available to the public for review. The document examined at a generic level the various environmental problems associated with commercial navigation, and also gave a more detailed presentation on the impacts associated with dredging. This document, in its revised final form, is available through National Technical Information Service (NTIS), as are the other contractor technical element reports. (See Appendix 5.)

An Environmental Assessment (EA) accompanies the NWS Final Report. The EA briefly relates the environmental concerns to anticipated waterway system needs and the framework contained in the Final Report.

Results of the Public Involvement Program

The Public Involvement Program of the National Waterways Study provided benefits to both the general public and to the study management. Many different individuals and organizations with an interest in navigation were kept informed of the study progress, findings and conclusions through NWS bulletins and fact sheets. Meetings and presentations on the study provided

further opportunities for learning more about the project, obtaining NWS publications and providing important comments based on their own perceptions and expertise. Requests received at public meetings alone resulted in the distribution of hundreds of the contractors' draft technical reports, fact sheets, NWS Waterway System Commerce, and numerous other publications (see Appendix 5).

Likewise, the Public Involvement Program provided considerable data and information to the study management which helped to shape the direction of the project and to modify certain contractor efforts. In particular, public meetings and presentations before specialized audiences provided on-the-spot reactions directly to NWS contractors as well as to the Corps management. Meetings with Shippers and Carriers and with the environmental community opened new avenues of communication and provided information which might not otherwise have been obtained; but which was crucial in evaluating the future direction of the navigation industry.

New information received as a result of several public meetings, especially during the fall of 1980, provided considerable new data for the study and led to the creation of an additional scenario for projections of waterborne commerce. For example, underreporting of traffic on the Ohio and Monongahela Rivers was corrected for the base year, resulting in changes in tonnage projections throughout the forecast period for a number of waterway segments. Anticipated commodity flows were increased for the Arkansas River and the Columbia-Snake System reflecting new local information. Also, sensitivity analyses were performed to analyze the potential impacts on projected waterborne commerce of such factors as transportation deregulation, changes in environmental policies, higher coal exports, and other developments occurring during later stages of the study. The public involvement effort helped bring such potential new factors to the attention of NWS contractors so that they could be addressed in the context of the study.

CONCLUSIONS

The Corps divisions and districts, other Federal agencies and numerous interested groups from the general public played a crucial role in completing the National Waterways Study. Without their cooperation and support, principal data could not have been assembled, errors could not have been as readily detected, and many important pieces of information might not have been obtained. Through their roles as sources, reviewers and commentators, a comprehensive national study of the waterways became feasible.

The Corps divisions and districts provided essential basic data and ongoing support to NWS management for the duration of the project. Their aid in developing a study format, providing information, and reviewing contractor and IWR reports for content and accuracy, was vitally important to producing a successful product.

The interagency coordination provided by the Steering Committee was also a great asset to the NWS management. By bringing together skilled individuals from several agencies with related interests, NWS received useful new information and valuable planning and policy guidance. The Steering Committee

provided an open channel of communication between NWS and the activities of other agencies.

The Public Involvement Program of the National Study tested new ideas and concepts for interacting with a broad range of interested individuals and organizations. As an ongoing component of the study, the program kept the public informed of each new study stage from the inception of NWS through the final report. The program provided a vehicle for obtaining public reactions and ideas as the study progressed, and allowed the study to address and incorporate useful new information and comments. The program provided a tool which proved beneficial to both the Corps and the public, and the experience gained from the effort should be useful in future national level studies.

APPENDIX 1

**NATIONAL WATERWAYS STUDY
INFORMATION BULLETINS**

APPENDIX 1

NATIONAL WATERWAYS STUDY INFORMATION BULLETINS

Summary of Contents

Issue 1, October 1978

- o Discussion of June 1978 open public meeting concerning the initiation of the National Waterways Study.
- o Goals of the study itself, and utility and purpose of the information bulletins.
- o Agencies involved in coordination and review of the study.
- o Contracting efforts for the technical research and the Waterway System and Commodity Movement Maps.
- o Availability of the report "Domestic and International Transportation of U.S. FOREIGN TRADE: 1976."
- o Public Involvement efforts and functions to date.

Issue 2, March 1979

- o Awarding of technical support contract to A.T. Kearney, Inc.
- o Atlanta Workshop schedule for April: "Shaping the Future of the Waterways." Over 120 invitations issued.
- o Availability and individual descriptions of NWS 19-map series.
- o NWS data base inventory, purpose and scope.
- o Discussion of National Dredging Program and other national studies of importance to NWS.
- o Preliminary identification of NWS technical research elements.

Issue 3, September 1979

- o Completion of NWS contractor Workplan, with outline and description of the study phases and the role and content of the technical research elements.
- o Discussion of NWS sponsored Shippers and Carriers Meeting.
- o Outline of planned public involvement activities.

- o Description and ordering procedures for NWS 19-map series.
- o Description of the April Atlanta Workshop and the NWS priorities established at that meeting.
- o Discussion of NWS sponsored briefing for railroad representatives.
- o Presentation concerning NWS made to the Pacific Northwest Waterways Association.

Issue 4, November 1979

- o Announcement of four December public meetings on the NWS contractors' preliminary technical research finding.
- o Overview of past and planned public involvement activities.
- o Discussion of contractors interviews with Corps personnel nationwide in gathering technical information.
- o Announcement of January 1980 NWS Technical Workshops at Fort Belvoir.
- o Discussion of September 1979 meeting with environmental interests to review environmental components of NWS.
- o Notice of availability of Part 1 of "History of Commercial Waterways and Ports of the United States," and Part 1 of "U.S. Waterways and Ports, a Chronology."
- o First announcement of April 1980 National Waterways Roundtable in Norfolk, Virginia.

Issue 5, March 1980

- o Extensive discussion of four regional public meetings held in December. Topics of controversy and suggestions for further research which resulted from the meetings were highlighted.
- o An order form was provided for NWS maps, staff papers and revised version of "Trends in Water Commerce of the United States."
- o Announcement of availability of NWS Map 20, "Energy Movements by Water."

Issue 6, August 1980

- o Article discussing the eruption of Mount St. Helens and its impacts on Columbia River navigation with respect to NWS Defense and Emergency technical element.
- o Announcement of upcoming public meetings in September and November, 1980. The topic of the September meeting was to present the contractors' findings on the "Evaluation of the Existing System." The topic announced for the November meeting was to present the contractors' strategies to meet problems identified by the waterway system evaluation.
- o Order form for NWS 20-map sets and other study publications.
- o Question and answer section from public involvement activities, based on questions and comments submitted by public and responses by NWS contractors. Reviewed forecasts, research on shippers and carriers, capacity issues, strategies, environment and emergency/defense waterway issues.
- o Discussion of waterway science and technology meetings held during July 1980, concerning river training/channel design, lock design, dredging issues and navigation season extension.

Issue 7, June 1981

- o Article on NWS as it nears completion. Results of forecasts, evaluation of the existing system, scenario and sensitivity forecasts. Modifications, problems isolated and analyzed, strategies and ultimate recommendations.
- o Availability notice of the "National Waterways Roundtable: Proceedings." Ordering procedures noted.
- o Discussion of November 1980 regional public meetings on the "Evaluation of Strategies." Issues raised by participants which led to forecast modifications were highlighted.
- o Announcement of final public meeting to present conclusions and preliminary recommendations scheduled for July 1981.
- o Order form for study materials, including technical element reports.

APPENDIX 2

LIST OF ATTENDEES OR PREREGISTRANTS FOR
NATIONAL WATERWAYS STUDY PUBLIC MEETINGS

NATIONAL WATERWAYS STUDY

WORKSHOP ON PLANNING THE FUTURE OF THE WATERWAYS
LIST OF ATTENDEES: ATLANTA, GA, 27-29 MARCH 1979

Anderson, David
Data Resources, Inc.

Anderson, George
Western Railroad Association

Barclay, Commander
Military Traffic Mgmt. Command

Barker, Bruce
Division of Water Resources
Illinois DOT

Barschdorf, Milton
Greenville, MS, Port Commission

Behrhorst, Vernon
Water Resources Congress

Belcher, Doug
USACE, South Atlantic Division

Blelloch, R. Andrew
Louis Berger & Associates, Inc.

Botts, Mrs. Lea
Great Lakes Basin Commission

Brown, George
Data Resources, Inc.

Carey, W.N., Jr.
Transportation Research Board

Carruth, Gordon
Georgia Dept. of Planning & Budgeting

Chandler, Alan
USACE, Ohio River Division

Chase, Samuel
USACE, New Orleans District

Churchward, Victor
A. T. Kearney, Inc.

Clesceri, Dr. Nicholas L.
Fresh Water Institute
Rennselaer Polytechnic Institute

Collins, Clarence
Director of Emergency Transportation
US DOT

Cook, Harry
National Waterways Conference

Cook, Peter
Louis Berger & Associates, Inc.

Crook, Leonard
Leonard Crook and Associates

Crossan, Brook
Louis Berger & Associates

Daggett, Dr. Larry
USACE, Waterways Experiment Station

Denny, Pete
USACE, Seattle District

Derthick, Henry
Division of Waterways and Rail
Tennessee DOT

Doran, Thomas
USACE, Board of Engineers for
Rivers and Harbors

Dunn, Frank
USACE, South Pacific Division

Egan, John
A. T. Kearney, Inc.

Ellis, William H. N.
Florida DOT

Feinstein, Arthur
Louis Berger & Associates, Inc.

Fitzgerald, Bob
USACE, Vicksburg District

Ford, Alfred
USACE, Waterways Experiment Station

Fredrich, A. J.
USACE, Institute for Water Resources

French, Cpt. John D.
HQ, US Coast Guard

Gallaher, Dr. Walter
USACE, Waterways Experiment Station

Glanz, Christopher
USACE, North Central Division

Godwin, Bill
USACE, Office of the Chief

Gossard, William
National Transportation
Safety Board

Haefner, Dr. Lonnie
Department of Civil Engineering
Washington University

Hasmonek, Joyce
A. T. Kearney, Inc.

Hawnn, Arthur
USACE, Office of the Chief

Hebrich, Dr. John
Center of Marine Resources
Texas A & M University

Heimbürger, Ronald
A. T. Kearney, Inc.

Hochstein, Anotoly
Louis Berger & Associates, Inc.

Hull, William
Sea Island, GA

Hutchinson, T.
U.S. Department of Agriculture

Johnson, Edward
Div. of Interindustry Analysis
U.S. Bureau of Mines

Johnson, Jim
Water Resources Council

Kaicher, Anthony
USACE, North Atlantic Div.

Keough, Pat
USACE, Portland District

Kissel, Lawrence
USACE, Southwestern Division

Lane, L. Lee
Association of American
Railroads

Lawhun, D. E.
USACE, Office of the Chief

Levin, James
A. T. Kearney, Inc.

Lowry, Paul
Bureau of Business and Economic Research
Memphis State University

MacGillivray, C. I.
Planning and Research Division
Iowa DOT

MacLauchlin, Robert
USACE, North Central Division

Malette, Frank
USACE, Board of Engineers
for Rivers and Harbors

Mankus, Dick
USACE, St. Louis District

Margolin, Edward
Chevy Chase, MD

Martin, Philip A.
Arkansas Dept. of Industrial Dev.

McCann, John
USACE, Board of Engineers for
Rivers and Harbors

McGown, Carole
A. T. Kearney, Inc.

Miller, Mark
A. T. Kearney, Inc.

Miller, Richard L.
Harry Lindberg School

Morehouse, James
A. T. Kearney, Inc.

Nachtsheim, John J.
Maritime Administration

Newstrand, William
Office of Multi-Modal Planning
Minnesota DOT

Norris, Jack, Jr.
USACE, Board of Engineers
for Rivers and Harbors

Ohnstad, Don
Missouri River Basin Commission

Olgeirson, J. W.
Great Lakes Dredge and Dock Company

Pattison, David
USACE, Ohio River Division

Patton, Roger
Louis Berger and Associates, Inc.

Pletka, Robert
USACE, Missouri River Div.

Porterfield, Jim
American Farm Bureau Federation

Reitz David
A. T. Kearney, Inc.

Roberts, Ron
USACE, Missouri River Div.

Robinson, BG Hugh
USACE, Office of the Chief

Rosen, Stan
USACE, Jacksonville District

Sands, Samuel
USACE, Board of Engineers for
Rivers and Harbors

Schuessler, Robert
Data Resources, Inc.

Schuster, Neil
American Waterway Operators

Sharp, Frank
USACE, Office of the Chief

Shows, Jack
USACE, Waterways Experiment

Smith, Glenda
USACE, Mobile District

Smith, Michael
A. T. Kearney, Inc.

Smith, Ralph
USACE, North Central Div.

Stevenson, Walter
Alabama Office of Planning and
Federal Programs

Thomas, Robert C.
Regional Planning Engineers

Vadlamani, Desh
USACE, Memphis District

Veatch, James
U.S. Coast Guard

Warnock, Dr. John
Dept. of Biological Sciences
Western Illinois University

Waugh, Richard
USACE, Board of Engineers for
Rivers and Harbors

Weck, Thomas
Louis Berger & Associates, Inc.

NATIONAL WATERWAYS STUDY

PUBLIC MEETING ON PRELIMINARY FINDINGS
LIST OF ATTENDEES, WASHINGTON, D.C., 11 DEC 1979

Anderson, David
Data Resources, Inc.

Anderson, Robert H.
Stanley Consultants, Inc.
Richmond, VA

Armstrong, Armour
Maritime Administration

Belcher, Owen D.
USACE, S. Atlantic Div.

Blumenfeld, Michael
Asst. Sec. of the Army

Breakiron, Phil L.
Alexandria, VA

Carlson, Peter
Washington, D.C.

Caron, Jim
U.S. Dept. of Agriculture

Case, Edward
U.S. DOT

Cazalas, Robert P.
Inland Waterway Weekly

Cook, Harry N.
National Waterways Conference

Crawford, Mark
National Press Building
Washington, D.C.

Creedy, John A.
New York, NY

Crook, Leonard T.
Leonard Crook and Associates

Dempsey, Raymond
Alexandria, VA

Delli Priscoli, Dr. Jerry
WRSC, USACE

DeRemer, Craig, W.
Office of the Chief, USACE

Dietz, E. G.
Union Carbide Corporation

Ford, Capt. Francis J., Jr.
U.S. Maritime Administration

French, Capt. John D.
U.S. Coast Guard

Giaizi, Michael
Washington, D.C.

Goddin, Penny
Nat'l Assn. of Dredging Contractors

Greene, Ed
Office of the Chief, USACE

Gump, Davie
Washington, D.C.

Hall, Gunnar
New York State DOT

Halton, Linda C.
Assn. of American Railroads

Hawkins, Joseph
Washington, D.C.

Hawn, Art
WRSC, USACE

Herald, Harry M.
Pittsburgh, PA

Hesse, Richard J.
Harza Consulting Engineers

Hewitt, John L.
AASTO
Washington, D.C.

Hoffnar, Ann
Office of the Chief, USACE

Hook, Mrs. F.
Washington, D.C.

Hull, William J.
Sea Island, GA

Jacobson, I. Bernard
Booz-Allen and Hamilton

Kapco, Norman G.
Harrisburg, PA

Kastens, Royal F.
Washington, D.C.

Kreiser, Janis L.
U.S. Department of Energy

Le Compte, J. H.
Bethlehem, PA

Lehman, Charles
American Commercial Barge Line

Lema, Joseph E.
National Coal Association

Lougee, Duane
U.S. DOT

Malette, Frank
BERH, USACE

Moritz, Cdr. C. A.
Office of Coastal Zone Management
NOAA

Murphy, R.D.
U.S. DOT

Nachtsheim, John
Maritime Administration

Newton, James
Washington, D.C.

Nicholas, C. J.
Silver Spring, MD

Orr, Duane
Port of Corpus Christi

Paxson, David
Association of American RR

Rogers, Edward Lee
Office of ASA

Rosapepe, James U.
Maritime Administration

Sanford, Robert
Environmental Protection Agency

Schuster, Neil
American Waterway Operators

Sherman, Rexford B.
American Association of Port Authorities

Tangerose, J. G.
Consultant

Teters, Robert
Office of the Chief, USACE

Tralka, Edward
Maritime Administration

Van Riper, Drew
U.S. Coast Guard

Waddell, Judy
Bunge Corporation

Waring, John A.
Research Writer and Consultant

Waters, Robert C.
George Washington University

Whitfield, Ed
Washington, D.C.

NATIONAL WATERWAYS STUDY

PUBLIC MEETING ON PRELIMINARY FINDINGS
LIST OF ATTENDEES, CHICAGO, IL, 12 DEC. 1979

Anderson, George E.
Western Railroad Association

Anderson, Lowell E.
Chicago, IL

Avery, Ed
Chicago, IL

Behm, A. L.
USACE, North Central Div.

Benson, Jeff
Iowa D.O.T.

Berg, Gerald
Rochelle, IL

Bauer, David R.
Harza Engineering Co.

Borek, Paul J.
City of Chicago

Braslan, David
Minneapolis, MN

Busking, Lawrence
Chicago, IL

Cordner, W. F.
Standard Oil Company

Doyle, Col. Verne L.
USACE, North Central Division

Gallo, Pat, P.E.
Consulting Engineer

Glanz, Christopher
USACE, North Central Division

Hanok, Max
Environmental Protection Agency

Johnson, James A.
Illinois, DOT

Karabatosos, Gus J.
Omaha, NE

Kennedy, Michael
Madison, LUI

Klotz, Mrs. Themis A.
Glencoe, IL

MacLauchlin, Robert M.
USACE, North Central Division

Ongley, Craig G.
Iowa DOT, River Division

Selleck, Col. C. A., Jr.
USACE, Missouri River Div.

Soyke, Paul
USACE, Rock Island Dist.

Stoerker, Holly
Upper Miss. R. Basin Comm.

Taylor, B.J.
USACE, Chicago District

Vellhradsky, John
USACE, Omaha District

Wolf, Norman B.
Illinois D.O.T.
Division of Water Resources

Zuber, Steven
Park Ridge, IL

NATIONAL WATERWAYS STUDY

PUBLIC MEETING ON PRELIMINARY FINDINGS
LIST OF ATTENDEES, PORTLAND, OR, 14 DEC 1979

Allen, Craig
Portland, OR

Bach, William
Port of Portland

Bernson, Becky
Portland, OR

Bertinchamps, Frank J.
USACE, North Pacific Division

Connell, Col. T. J.
USACE, Portland Dist.

Cooml Robert
Olympia, WA

Ebert, Larry
Eagle Creek, OR

Fischer, Ted O.
Portland, OR

Flaherty, Carolyn A.
USACE, Portland Dist.

Flowers, Capt. R. B.
Vancouver, WA

Fodrea, Jim
USACE, North Pacific Division

Giger, Richard D.
Portland, OR

Harman, Greg
Jefferson, OR

Hibbits, Darrell D.
USACE, Portland District

Hodges, John
Portland, OR

Huxtable, Frank
Portland, OR

Jacques, Alene
Portland, OR

Johnson, Delbert W.
Portland, OR

Keough, Pat
USACE, Portland Dist.

Kinney, Richard
Tualatin, OR

Klapper, Jeff
Portland, OR

Lanson, Kim W.
Portland, OR

Lee, Cathy
Portland, OR

Lindstrom, Steve
Pacific N.W. Waterways Assn.

Miller, R. M.
Aloha, OR

Moore, Pamela A.
USACE, Portland Dist.

Nisbett, D.L.
Portland, OR

Norris, Paul R.
Oregon, D.O.T.

Olson, Deb
USACE, North Pacific Div.

Pavitt-Ryan, Dawn
Port of Portland

Proctor, Karl
Portland, OR

Ramatowski, Helen
Vancouver, WA

Riber, Jim
Portland, OR
Rinehart, Ginny
USACE, Portland District

Royer, Bob
Oregon, DOT

Scheel, Pion N.
Vancouver, WA

Shuee, Dan
USACE, Portland District

Simpson, David
USACE, Portland District

Simpson, L. J.
USACE, North Pacific Division

Smith, C. Walter
the Dalles, OR

Tuck, Nandranie S.
USACE, Portland District

Turnbull, Bill
Redmond, WA

Welling, Charles L.
USACE, Alaska Dist.

Winslow
USACE, Portland Dist.

Woodruff, Ed
Vancouver, WA

Young, Cpt. R. E., Jr.
Beaverton, OR

NATIONAL WATERWAYS STUDY

PUBLIC MEETING ON PRELIMINARY FINDINGS
LIST OF ATTENDEES, NEW ORLEANS, LA, 18 DEC 1979

Alost, Joseph A., III
New Orleans, LA

Andrus, Pierre S.
USACE, New Orleans Dist.

Arnoult, Charles
New Orleans, LA

Balfour, Sharon J.
Baton Rouge, LA

Barschdorf, Milton
Greenville, MS

Bates, John C.
Baton Rouge, LA

Behrhorst, Vernon
Louisiana Intracoastal
Seaway Association

Breerwood, Gregory
Metairie, LA

Brown, David M.
New Orleans, LA

Chase, Samuel F., Jr.
USACE, New Orleans Dist.

Cliffe, Dan M.
New Orleans, LA

Constan, Nick
USACE, New Orleans District

Coombis, Jasper
USACE, Albuquerque District

Corbin, Joe
USACE, Little Rock District

Currie, Less
USACE, Mobile District

Deery, Brian P.
Associated General
Contractors of America

DeRemer, Craig, W.
Office of the Chief, USACE

Eberhardt, Betty Mae E.
USACE, Ohio River Division

Evans, William A., Jr.
Gretna, LA

Gilpin, Joann
Austin, TX

Golden, Lt. Paul C.
U.S. Coast Guard

Grallanza, Sam
New Orleans, LA

Harbourt, Merle
New Orleans, LA

Harrington, Thomas E., Jr.
Belle Chasse, LA

Hindiu, Cpt. E. B.
New Orleans, LA

Johnson, Karl
USACE, New Orleans Dist.

Jordan, Percy A.
USACE, New Orleans Dist.

Keenan, John B., Jr.
New Orleans, LA

Kissell, Lawrence
USACE, Southwestern Div.

Knox, Hugh H.
Mobile, AL

Lyle, Don
Westlake, LA

McNemar, A. Jay
Shell Oil Company

Meyers, Daniel R., Jr.
Metairie, LA

Morley, Kevin J.
Baton Rouge, LA

Pearse, P. M.
New Orleans, LA

Philen, Diane
South Dakota Dept. of
Water Resources

Prather, Larry J.
USACE, New Orleans District

Reeder, James M.
Agri-Trans Corporation

Rhodes, George H., Jr.
USACE, Lower Mississippi
Valley Division

Roth, Col. Bernard
USACE, Albuquerque District

Seaman, Cmdr. T. L.
U.S. Coast Guard

Smith, Glenda C.
USACE, Mobile District

Sossaman, Bruce
USACE, New Orleans District

Trimble, Adm., Paul E. (Ret)
Lake Carriers Association

NATIONAL WATERWAYS STUDY

TECHNICAL WORKSHOPS ON PRELIMINARY FINDINGS
LIST OF ATTENDEES, FORT BELVOIR, VA, 30 JANUARY 1980

Anderson, George
Western Railroad Association

Ashmore, Stanley
USACE, Rock Island Dist.

Blackburn, John G., Jr.
American Petroleum Institute

Buonocore, Anna O.
St. Lawrence Seaway Dev. Corp.
USDOT

Burke, Roger A.
USACE, Mobile Dist.

Bushnell, Robert C.
Bushnell, Pearsal and Trozzo

Cook, Kenneth
Transportation Research Board

Cordero, Joseph
Mid Western Grain

Corrigan, Richard L.
American Consulting
Engineering Council

Crawley, Bob

Faig, Earl
Ohio River Company

Feldsott, Steve
Consad Research Corporation

Forbes, Kenneth
Maritime Administration

Ford, CPT Francis J., Jr.
US Maritime Administration

French, CPT John D.
OCE, HQ - USCG

Goddin, Penny
National Association of
Dredging Contractors

Goddier, J. L.
Battelle Memorial Institute

Halston, Linda C.
Association of American Railroads

Harm, D. H.
Union Pacific Railroad

Hodgdon, Harry E.
The Wildlife Society

Hutchinson, T. Q.
US Dept. of Agriculture

Johnson, Jim
USACE, Office of the Chief

Johnson, John S.
Agri-Trans Corporation

Johnson, Milton G.
NOAA
US Dept. of Commerce

Keating, William J.
National Grain and Feed
Association

Kurshaw, Jerry F.
USACE

Lisle, L. D.
US Army Engineer School

Lougee, Duane
US DOT

Lundstrom, Harry
Construction Engineer

Luzwick, Richard
Conti Carrier and Terminals

Martino, Paul
Ecology and Environ., Inc.

Matthews, Reynold J.
US Coast Guard

McCleery, Martin
St. Paul District

McGinnis, MG (ret) Charles I.
American Dredging Association

McHugh, C. J.
Shell Oil Co.

McIntyre, CPT John
Battelle Memorial Institute

Meanor, John

Newberger, Johnathan
DRI

Newton, J. A.
Conrail Corp.

Olander, Ron
Dravo Corp.

Paxson, David S.
Assn. of American Railroads

Pearsall, Edward
Bushnell, Pearsall & Trozzo

Pierce, Phillip
OCE

Przelomski, Skip
Office of Marine Transportation
US DOT

Reeder, James M.
Agri-Trans Corp.

Roemer, Art
DOE

Skie, Charles
Ohio River Company

Slott, Joe
DRI

Smith, Glenda
USACE, Mobile District

Soyke, Paul
USACE, Rock Island District

Sternlieb, Steve
General Accounting Office

Walton, Dr. Raymond R.
Water Resources Engineers

Waters, Robert C.
George Washington Univ.

Whitlock, Palmer
URS Madigan-Praeger

Wilner, Frank
Assn. of American Railroads

Zimmer, Kathie Schear
NRECA

NATIONAL WATERWAYS STUDY

PRELIMINARY EVALUATION OF THE EXISTING SYSTEM
LIST OF ATTENDEES, ARLINGTON, VA, 4 SEPTEMBER 1980

Alexander, Tom J.
US Maritime Administration

Armstrong, Armour
US Maritime Administration

Bagley, David
The Consulting Center, USA Inc.

Barker, Bruce
Illinois Div. of Water Resources

Bobolubov, Helen
American Consulting Engineers
Council

Bracken, Darcia
US Maritime Administration

Brister, William
US Maritime Administration

Case, Edward
Office of the Secretary of
Transportation

Chambers, A. Michael
US Patent Office

Covinsky, Jeff
SCNO Barge Lines

Dolley, Scott
National Wildlife Federation

Duffy, Tom
Conti Carriers and Terminals

Eastman, Samuel E., Pres.
Economics Sciences Corp.

Feldsott, Steve
Consad Research Corp.

Fetter, Robert P.
Southern Railway System

Fields, C. H.
American Farm Bureau

Forbes, Paul
New York State Dept. of Transp.

Frank, Steven
Maryland DOT

Gawinski Michael J.
Dravo Corp.

Goddin, Penny
National Association of Dredging
Contractors

Goodier, J. Leslie
Battelle Northwest

Harman, David
South Carolina State Ports Auth.

Hersrud, CPT Daniel J.
US Coast Guard

Hickman, William D.
Engineer News Record

Hung, Stephen C.
St. Lawrence Seaway
Development Corporation

Johnson, Dr. Milton G.
NOAA

Keating, William J.
National Grain and Feed Association

Kelnhofer, Guy J., Jr.
National Waterways Conference

Kursban, Jerry
US Coast Guard

Margolin, Edward

Martin, Dr. John C.
Booz, Allen and Hamilton

Milder, Nelson
NASA Headquarters

Miller, Glen
Conrail Corp.

Muncy, Dorothy
City Regional Planner
and Technical Institute

Murphey, Bob
Office of Intermodal Trans.
US DOT

Mushovic, Paul
Energy and Environ. Branch
Interstate Commerce Commission

McDonald, Douglas I.
U.S. Water Resources Council

McGinnis, MG Charles I. (Ret.)
Fru-Con Corp.

McHugh, John
Morrison--Knudsen Co.

McNemar, A.J.
Shell Oil Company

Nachtsheim, John J.
U.S. Maritime Admin.

Page, Richard P.
US Coast Guard

Peterson, T. R.
Booker Associates

Pitts, George T.
Delmarva Water Transport
Commission

Rector, David M.
Energy and Environmental Branch
Interstate Commerce Commission

Romine, CMDR
US Coast Guard

Rosapepe, James
Office of the Secretary of
Transportation

Ruiz, Charles
ASA (CW)

Schubert, Rear Adm. Fredrick P.
U.S. Dept. of Trans.

Schultz, Virgil L.
Bean Dredging Corp.

Seely, Jim
U.S. Dept. of Energy

Siclari, Robert
Battelle Northwest

Stoerker, Holly
Upper Mississippi River
Basin Commission

Veatch, James
U.S. Coast Guard

Vogel, Herbert D.
H.D.V. Associates

Waddel, Judy
Bunge Corporation

Whipple, Howard
Maritime Administration

White, George
Ohio River Basin Commission

Whitlock Norb
American Waterways Operators

Wolfe, K. Eric
Assn. of American Railroads

NATIONAL WATERWAYS STUDY

PRELIMINARY EVALUATION OF THE EXISTING SYSTEM
AND STRATEGIES FOR ACTION

LIST OF ATTENDEES, ARLINGTON, VA, 13 NOVEMBER 1980

Alexander, Tom J. Dept. of Energy	Case, Edward US DOT
Angell, Gordon Maritime Administration	Cass, James R., Jr. James C. Buckley, Inc.
Armstrong, Armour Maritime Admin.	Conrad, Ardts US Dept. of Agriculture
Ayres, Joe American Farm Bureau Fed.	Crowe, Debra St. Lawrence Seaway Development Corporation
Baldwin, Peter Assoc. of American Railroads	Davies, Edward H. Office of Operations OCE, USACE
Barker, Bruce Illinois DOT	Dexter, K. T. National Association of Dredging Contractors
Barley, David Office of State Planning and Federal Programs	Dietz, E. G. Union Carbide Corporation
Beachler, Ed Port Authority of Pittsburg	Donahue, Marla Council of American Flag Ship Operators
Belcher, Owen D. USACE, South Atlantic Division	Egan, John A. T. Kearney, Inc.
Bond, Thomas J. US Fish & Wildlife Service	Fetter, Robert P. Southern Railway System
Brown, Samuel J. Johns Hopkins University	Frank, Stephen Maryland DOT, Planning Div.
Brunsell, Joyce Office of the Chief of Engineers, USACE	Freeman, Raymond L. American Soc. of Landscape Architects
Bryan, Don Penns. DOT	Gearhart, James E. National Ocean Survey, NOAA
Canvin, CPT George A. Sandy Hook Pilots	

Goddin, Penny
American Assoc. of Port. Auth.

Hanchey, James R.
Institute for Water Resources

Harman, Dave
SC State Ports Authority

Hawnn, Arthur F.
Institute for Water Resources

Helfand, Gloria
Defense Council, Inc.

Hesse, Richard J.
Consulting Engineers

Hibbard, Thomas H.
Office of the Assistant
Secretary of the Army

Hunter, Thomas C., Jr.
Law Engineering Testing Company

Janairo, Max R., Jr.
Michael Baker, Jr., Inc.

Johnson, Jim
Office of the Chief of
Engineers, USACE

Keller, Peter
Citicorp

Kelnhofer, Guy J., Jr.
National Waterways
Conference, Inc.

Kem, BG Richard S.
Office of the Chief
of Engineers, USACE

Kepler, Paul
US Dept. of Agriculture

Koch, DuWayne
Office of the Chief of
Engineers, USACE

Kozlowski, Jim
National Recreation and
Parks Association

Lambert, D. R.
Exxon Company, USA

Lehman, Charles F.
American Commercial Barge
Line Company

Lewis, Lynn M.
US Fish & Wildlife Service

Lougee, Duane
US DOT

McGinnis, Charles I.
Fru-Con Corporation

Miller, G. R.
Consolidated Rail Corporation

Morehouse, James E.
A. T. Kearney, Inc.

Mpras, Nick
US DOT

Muckece, Archie
US Coast Guard

Murray, CPT Joseph A.
New Jersey Sandy Hook Pilot Commission

Randall, Kenneth S.
Maritime Administration

Reitz, David
A. T. Kearney, Inc.

Robertson, COL George R.
Office of the Chief of Engineers,
USACE

Roche, CPT Richard S.
New York Sandy Hook Pilots Assn.

Russell, Randolph
American Road & Transportation
Builders Association

Sands, Samuel E.
BERH, USACE

Saul, Richard
Transportation Institute

Schultz, Richard L.
Tera Corporation

Schuster, Neil
American Waterways Operators

Simmons, Malcolm
Congressional Research Service

Sleeper, Paul F.
Exxon Company, USA

Sliter, J. Thomas
US Senate Budget Committee

Snead, Jim
Citicorp

Thompson, Katherine S.
Office of the Chief of
Engineers, USACE

Thompson, Steven
Congressional Research Service

Tralka, Edward F.
Maritime Administration

Vale, Stanley
Pennsylvania DOT

Veatch, James F.
US Coast Guard

Waddell, Judy
Bunge Corp.

White, Richard H.
Title XI, Maritime Admin.

Willgers, George F.
DOT

Wilkinson, Cyndy
Coast Guard Subcommittee

Wolfe, K. Eric
Association of American Railroads

NATIONAL WATERWAYS STUDY

PRELIMINARY EVALUATION OF THE EXISTING SYSTEM
AND STRATEGIES FOR ACTION

LIST OF PREREGISTRANTS, ST. LOUIS MO, 18 NOVEMBER 1980

Anderson, George E.
Western Railroad Association

Grand, Gary
Wisconsin Barge Line, Inc.

Arnold, Robert
Minnesota Water Planning Board

Hoffmeister, Kent E.
St. Louis Ship Division
Pott Industries, Inc.

Barker, Bruce
Illinois DOT

Hunter, Robert N.
Missouri Highway and Transportation
Commission

Bensinger, Rick
G.W. Gladders Towing Co.

Jensen, Paul
Espey, Huston and Associates, Inc.

Burnett, Jr., John E.
The Valle Line Co.

Jester, Guy E.
J.S. Alberici Construction Company

Carter, Lee
Registered Professional Engineer

Johnson, John S.
Agri-Trans Corporation

Clodfelter, Charles A.
SCNO Barge Lines, Inc.

Kellow, James H.
Louisville and Jefferson
County Riverport

Crawley, Robert E.
Sverdrup and Parcel Assoc. Inc.

Kennedy, Stephen
Community Development Agency
City of St. Louis

Dare, Charles E.
University of Missouri-Rolla

Lay, Jim E.
Oklahoma Department of
Industrial Development

Falhart, B. J.
U.S. Coast Guard

Leeker, Don
Consolidated Grain and Barge

Franco, Chuck
USACE, St. Louis Dist.

Linton, William E.
Granite City Steel

Geho, Ralph W.
Missouri Dept. of Highways and
Public Transportation

MarGraff, Howard D.
St. Louis Terminals Corporation

Goding, George S.
NILO Barge Line, Inc.

Markus, Howard
Missouri Department of Natural
Resources

Goodwin, Robert G., Jr.
American Waterway Operators, Inc.

Masters, Sam
Missouri Dept. of Highways
and Public Trans.

McFarland, Rollard W.
Sverdrup, Parcel and Associates

McNemar, A. J.
Shell Oil Co.

Moody, Randy
State of Nebraska, Missouri
River Marketing Office

Morris, Charles D.
University of Missouri--Rolla

Munger, Paul R.
University of Missouri--Rolla
Authority

Norman, Charles J., III
Norman Brothers, Inc.

Nutter, James H., Jr.
Kentucky Port and River

O'Berney, Larry
U.S. Fish and Wildlife Service

Orr, Duane
Port of Corpus Christi

Parsonage, N. Jeffery
Marine Equipment Management Corp.

Phillips, James H.
Arkansas Waterways Commission

Poe, CPT. E. A.
NILO Barge Lines

Reeble, Stanley L.
Kaskaskia Region Port Dist.

Roseman, W. W.
NILO Barge Lines

Schulte, Fred W.
DRAVO Corporation

Skie, Chuck
Ohio River Company

Smith, Roger H.
University of Missouri--Rolla

Stevens, Glendon T., Jr.
University of Missouri--Rolla

Stuart, R. L.
Monsanto Company

Swift, James V.
The Waterways Journal

Tolliver, Jerry
Kentucky DOT

Twyman, W. F.
City of St. Louis,
Port Authority

Weidemann, Wayne
Bi-State Development Agency

Weiss, Gordon E.
University of Missouri--Rolla

Wiseman, Clyde H., Jr.
St. Louis Regional Commerce
and Growth Association

Yates, William J.
City of St. Louis Port Authority

NATIONAL WATERWAYS STUDY

PRELIMINARY EVALUATION OF THE EXISTING SYSTEM
AND STRATEGIES FOR ACTION

LIST OF PREREGISTRANTS, PORTLAND, OR 19 NOVEMBER 1980

Bach, William
Port of Portland

Bertinchamps, Frank J.
USACE, North Pacific Div.

Brugo, Mary
Port of Portland

Charlton, David B.
MEI-Charlton Inc.

Crosby, COL Robert L.
USACE, North Pacific Div.

Ellis, Edmund G.
Cascade Shipping Co.

Ellison, Jim
Izaak Walton League of America

Forsbert, Brent O.
Oregon Dept. of Fish and Wildlife

Gorini, Richard F.
Port of Vancouver, WA

Greiner, CPT J. K., Jr.
Coast Guard Marine Safety Office

Hemingway, John W.
Port of Klickitat County

Hendrickson, Larry
Port of Skamina County

Hopman, Robert J.
USACE, North Pacific Division

Hutchinson, Bill
Pacific Northwest River Basins Commission

Johnson, Jim
Office of the Chief, USACE

Logan, CPT Bruce J.
Columbia River Pilots

Malloch, Donald P.
Washington State DOT

Norris, Paul R.
Oredon DOT

Nothraft, Walter J.
Seattle University

Quan, Edison L.
Oregon Department of
Environmental Quality

Rose, Christine
Oregon Department of
Environmental Quality

Ruff, James D.
Oregon Water Resources Dept.

Shelton, Floyd
Oregon Department of
Economic Development

Tyrpak, Alex
Port of Vancouver, WA

Warden, Virgil
Port of Longview, WA

Van Deene, Gerry
Swan Wooster Engineering, Inc.

Zelenka, Tom

NATIONAL WATERWAYS STUDY

PRESENTATION ON FINAL REPORT
CONCLUSIONS AND RECOMMENDATIONS

LIST OF ATTENDEES, ARLINGTON, VA, 21 JULY 1981

Anderson, A. L.

Anderson, George E.
Western Railroad Association

Aultfather
U.S. Fish and Wildlife Service

Baldwin, Peter A.
Association of American Railroads

Barker, Bruce
Illinois DOT

Berhorst, Vernon
Louisiana Intracoastal Seaway Assn

Belcher, Owen D.
USACE, South Atlantic Division

Bond, Thomas J.
US Fish and Wildlife Service

Boyd, Robert D.
National Waterways Conference

Brunsell, Joyce
USACE, Office Chief of Engineers

Chandler, Alan
USACE, Ohio River Division

Churchward, Victor
A. T. Kearney, Inc.

Cook, Harry N.
National Waterways Conference

Corbino, Constance
American Consulting Engineers Council

Crowe, Debra
St. Lawrence Seaway
Development Corporation

Davis, George H.
Consultant

Dietz, Ed
Union Carbide Corporation

Dixon, Carl D.
Kentucky Department of Energy

Eastman, Samuel Ewer
Economic Sciences Corporation

Egan, John W.
A. T. Kearney, Inc.

Eichel, Kathleen
Economic Sciences Corporation

Franklin, Richard A.
Cook, Purcell, Hansen and Henderson

Hall, Gunnar
New York State DOT

Hasmonek, Joyce
A. T. Kearney, Inc.

Hobson, Ivan L.
USACE, Southwestern Division

Hodgdon, Harry E.
The Wildlife Society

Hunn, David
US Coast Guard

Ingersoll, David L.
US Water Resources Council

Isely, Ed
A. T. Kearney, Inc.

Jackson, Janice C.
US Coast Guard

Johnson, Jim
USACE, Office of the Chief

Kelnofer, Guy
National Waterways Conference, Inc.

Kinzeler, C. William
Ohio Valley Improvement Assn.

Kissell, Larry
USACE, Southwestern Division

Lambert, Doug

Lehman, Charles
American Commercial Barge Line

Lennox, Cheryl
Ohio River Corporation

Lindstrom, S. R.
Pacific Northwest Waterways Association

Mackwell, Arthur M.
Phibra Corporation

MacLauchlin, Robert
USACE, North Central Division

Malone, David W.
The American University

Matzzie, Dr. D.
Consad Research Corporation

McHugh, Charles J.
Shell Oil Company

Miller, Glenn R.
Conrail Corporation

Morehouse, James
A. T. Kearney, Inc.

Mpras, Nick
US Coast Guard

Murphy, Robert D.
US DOT

Nachtsheim, John J.
National Academy of Sciences

Orr, Duane
Port of Corpus Christi

Osterhoudt, Frank
US Department of Energy

Pearsall, Edward
Bushnell, Pearsall & Trozzo

Phillips, James H.
Arkansas Waterway Commission

Pierce, Phillip
USACE, Office of the Chief

Puettmann, Scott H.
SCNO Barge Lines

Rasgus, Jan
USACE, Office of the Chief

Revis, Paul N.
USACE, Little Rock District

Rhodes, George
USACE, Lower Mississippi
Valley Division

Schad, Ted
National Academy of Sciences

Schultz, Richard L.
Consultant

Schuster, Neil
The American Waterways Operators

Shwartz, Tom
Office of Rep. Bill Chappell

Scott, Larry
USACE, Office of the Chief

Simmers, Darlene A.
National Association of
Dredging Contractors

Simmons, Malcolm
Library of Congress

Smith, Janet M.
US Fish & Wildlife Service

Smith, Mark L.
Missouri Pacific Railroads

Stout, Glenn E.
Water Resources Center
University of Illinois

Sverdloff, Carl
US DOT

Totten, Max
Chemical Manufacturers Union

Tralka, Edward
US Maritime Administration

Trimble, Adm. Paul E. (Ret.)
President, Lake Carriers Association

Vale, Stan L.
Pennsylvania DOT

Veatch, James F.
US Coast Guard

Velsmid, Helen
Royal Volker Stevin

Waters, Robert C.
George Washington University

Wilkie, George T.
Sverdrup, Parcel and Associates

Wolf, Eric
Association of American Railroads

APPENDIX 3

BRIEFING FOR THE ENVIRONMENTAL COMMUNITY

Invitation

Agenda

Attendees

Summary of the Briefing



DEPARTMENT OF THE ARMY
INSTITUTE FOR WATER RESOURCES, CORPS OF ENGINEERS
KINGMAN BUILDING
FORT BELVOIR, VIRGINIA 22060

REPLY TO
ATTENTION OF:

IWR

13 August 1979

Dear

The Congress has directed the U.S. Army Corps of Engineers to undertake a national level study of the nation's waterway transportation system. This study, the National Waterways Study (NWS), needs your views on the important environmental issues related to the navigation system. To obtain these views you or your designated representatives are invited to attend an informal meeting to be held on 19 September 1979, at 9:00 a.m. in the Hearing Room of the Board of Engineers for Rivers and Harbors, Kingman Building, Ft. Belvoir, Virginia.

Responsibility for conducting the National Waterways Study has been assigned to the U.S. Army Corps of Engineers, Institute for Water Resources. The Corps is being assisted by several experienced consulting firms: A. T. Kearney, Inc., Louis Berger and Associates, Inc., and Data Resources, Inc. The Corps-Contractor study team will assess the impacts of changes in traffic volume, methods of operations, new technologies, and physical changes in the system. Part of the study will describe the effects that navigation has and could be expected to have on the environment.

Full use will be made of the extensive body of environmental information existing within the Corps, other agencies and private organizations. Your assistance will be important to insure that we do not overlook any important environmental issues or sources of information. To assist you in preparing for the meeting I have inclosed an agenda, a brief description of the overall project, the current statement of study objectives, and a recent National Waterways Study Bulletin. The inclosed map will assist you in finding the Kingman Building.

Invitations have been extended to known environmentally concerned individuals and organizations. To insure that we have adequate space, we would like to have your response about attendance on the inclosed

IWR

13 August 1979

post card by 4 September 1979. Please include the names, addresses and phone numbers of people who will attend.

We are looking forward to meeting with you. Should you have any questions, please call me at (202) 325-7422 or the NWS Study Manager, Mrs. Arlene L. Dietz at (202) 325-7141.

Sincerely yours,


AUGUSTINE J. FREDRICH
Director

5 Incl

1. Agenda
2. NWS Brochure
3. Study Objectives
4. NWS Study Bulletin
5. Direction Map
6. Return Post Card

NATIONAL WATERWAYS STUDY

Environmental Meeting

19 September 1979

Board of Engineers for Rivers and Harbors Hearing Room
Kingman Building, Fort Belvoir, Virginia

AGENDA

0900	Opening Remarks	BG Hugh G. Robinson Deputy Director of Civil Works National Waterways Study Director Office of the Chief of Engineers
0910	Overview of National Waterways Study (NWS)	Arlene L. Dietz NWS Study Manager
0935	Discussion of Environ- mental Aspects of the Study	Thomas E. Odle NWS Environmental Element Manager Thomas L. Weck Vice President Louis Berger and Associates
1010	Coffee Break	
1030	Questions and Comments	Participants
1200	Conclusions	Thomas E. Odle

NATIONAL WATERWAYS STUDY

Environmental Meeting Attendees

19 September 1979

Boone, LTC George F.
Office of the Chief of Engineers

Byrd, L. G.
Am. Soc. of Civil Engineers

Clark, Curtis
Office of the Chief of Engineers

Clesceri, Dr. Nicholas J.
Rennselear Polytechnic Institute

Costanzo, COL A. C.
Office of the Chief of Engineers

Dunn, Major Ken
Environmental Protection Agency

Duscha, Lloyd A.
Office of the Chief of Engineers

Godin, Penny
National Assn. of Dredging
Contractors

Meyer, Eric L.
U.S. Geological Survey

Morgan, W. C.
Materials Transportation Bureau

Olander, Ronald C.
Dravo Corporation

Paige, Harvey C.
Maritime Trans. Research Board

Peterson, Donald J.
U.S. Fish and Wildlife Service

Pullen, Edward J.
Coastal Engineering Research Center

Riedel, Bill
U.S. Coast Guard

Robinson, BG Hugh G.
Office of the Chief of Engineers

Hines, CMD S. H.
Department of Transportation

Hodgdon, Harry
The Wildlife Society

Keller, Dan
Bethesda, MD

Martin, Bob
American Fisheries Society

McCann, J. M., Jr.
Board of Engineers for Rivers and
Harbors

McLindon, Dean Gerald
Louisiana State University

Meyer, Christopher
National Wildlife Federation

Rogers, Lee
Deputy Asst. Secretary for
Civil Works, Dept. of the Army

Sather, Dr. J. Henry
Western Illinois University

Schuster, Neil D.
American Waterways Operators

Shank, William
American Canal Society

Smith, Jack
National Oceanic and Atmospheric
Administration

Steinman, George
Maritime Administration

Tralka, Edward
Maritime Administration

Verstraete, Jerry
Heritage Cons. Resources Service

MEMORANDUM FOR RECORD

SUBJECT: Summary of Environmental Meeting, 19 September 1979

1. This meeting was conducted as a key component of the National Waterways Study's (NWS) Public Participation Program. It's purpose was to:
 - a. brief the environment-oriented public sector on NWS emphasizing environmental aspects and
 - b. to gain input and guidance from that sector on the relationship and interaction of waterway usage and environmental concerns.
2. Speakers included:
 - a. BG Hugh Robinson, NWS Study Director, OCE,
 - b. Arlene L. Dietz, NWS Study Manager, IWR,
 - c. Tom Weck, Environmental Aspects Element Leader, Louis Berger and Associates (LBA), and
 - d. Tom Odle, Environmental Aspects Element Manager, BERH.
3. BG Robinson emphasized the need to plan for a first class waterway system by concentrating on the reduction or elimination of bottlenecks in the waterway system.
4. Arlene Dietz presented an overview of NWS objectives, scope, needs identification, and strategy development, study elements and schedule, and expected products. She stressed that study output will be in the form of sets of management and/or policy decisions appropriate to alternative scenarios. The decisions would be categorized as follows:
 - a. Maintenance Management Decisions
 - b. Operational Management Decisions
 - c. Capital Investment Management Program
 - d. Management and Policy (budgetary)
 - e. Institutional and Regulatory
 - f. Legal and Authority
5. Tom Weck discussed the environmental aspects component of NWS.

SUBJECT: Summary of Environmental Meeting, 19 September 1979

He covered the purpose and objectives of this component stressing the environmental analysis and impacts evaluation, integration with other components, and recent activities in the environmental component.

6. Tom Odle discussed the type of NWS output expected. He said that study findings pending various scenarios would be made by NWS staff and contractors. The findings would then be passed to OCE for refinement in terms of the relative likelihood of NWS suggested alternative strategies expected to occur given the specific scenarios. OCE then would forward its conclusions to Secretary of Army who would then submit recommendations to Congress. Those recommendations are expected to be in the form of:

a. recommendations for feasibility and special studies, and

b. recommendations for review of operations and maintenance practices, policies, and procedures.

7. NWS is not expected to result in direct construction recommendations, overlap details of on-going studies or directly recommend modifications in Corps of Engineers guidelines.

8. A question and answer forum followed the formal presentations. One of the major areas of inquiry regarded NWS coordination with other groups and studies in many study areas including:

a. requests for data input to NWS, and

b. participation of other groups in environmental impacts ranking, scenario development, element integration, draft deliverables and reports review, and strategy evaluation matrix development.

9. The most opportune time for input to the Environmental Aspects development would be by the end of October. Scenarios (once drawn up) and evaluation matrices review can be arranged in small meetings for interested groups. There is insufficient time in the review process to allow for interagency review of draft scenarios except through the NWS Steering Committee.

10. The multimodal aspects of the study were discussed in terms of the degree to which NWS would address modal comparison, whether an optimum modal split would be recommended, and integration of multimodal aspects throughout the the NWS. The involvement of other modes including possible modal splits will be addressed under various sets of assumption (per scenario) and will be integrated through all appropriate NWS elements.

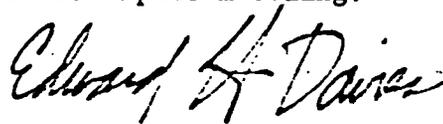
11. Examination of the environmental impacts of strategies under the various scenarios was discussed in terms of level of detail of impact assessment and evaluation and the procedure for impacts ranking. The level of study detail

SUBJECT: Summary of Environmental Meeting, 19 September 1979

12. The subject of an ultimate Environmental Statement (ES) for NWS was discussed. No formal ES is planned for NWS since no project level recommendations will emerge from NWS and all environmental aspects are to be handled within the framework of the study itself. Should the processing of the study findings lead to recommendations for feasibility and special studies, ES's would be appropriate for those studies at that time.

13. Other areas of discussion included:

- a. NWS Data in terms of distribution process and completeness,
- b. Sediment transport,
- c. Array of alternatives strategies,
- d. Conclusions,
- e. Approach to capability analysis,
- f. Water supply,
- g. Cumulative effects of Corps projects on the environment, and
- h. Use of mathematical environmental impact modeling.



EDWARD H. DAVIES
Civil Engineer
National Waterways Study

APPENDIX 4

Presentations Before Other Organizations

EXHIBIT 4

PRINCIPAL BRIEFINGS BY IWR STAFF ON THE NATIONAL WATERWAYS STUDY
BEFORE OTHER ORGANIZATIONS

Host Organization and Event	Date	Location
Propeller Club's Joint Conference Panel on "The Government's Role in Water Transportation."	June 78	Louisville, Ky
American Waterways Operators	August 78	Jackson, MS
Coal Outlook Conference, "Mine to Market"	August 78	Lexington, KY
National Waterways Conference, "Waterways and Public Policy: Adapting to New Realities"	Sept 78	Birmingham, AL
Briefing for Representatives of the Ministry of Communications, People's Republic of China	October 78	Washington, DC
National Energy Transportation Study	Dec 78	Washington, DC
Technical Society of Knoxville	January 79	Knoxville, TN
US DOT "User Charge Study"	March 79	Washington, DC
Pacific Northwest Waterways Association, Annual Meeting	June 79	Richland, WA
Society for Military Engineers, Fort Belvoir Chapter	July 79	Ft. Belvoir, VA
National Waterways Conference	Sept 79	Nashville, TN
Transportation Research Board, Inland Waterways Section; Semi-Annual Meeting	Sept 79	Washington, DC
Upper Mississippi River Basin Commission	multiple occasions	Minneapolis, MN
Transportation Research Forum, Annual Meeting	October 79	Chicago, IL
National Dredging Meeting	Dec 79	Norfolk, VA
Inter-Agency Coal Export Task Force, Briefings for Foreign Delegations	Winter/ Spring 80	Washington, DC
American Water Resources Association, Washington, DC Chapter	May 80	Washington, DC
Briefing for the Ambassador of Colombia	June 80	Washington, DC

Federal Railroad Administration	June 80	Washington, DC
Transportation Research Board, National Meeting	June 80	Cincinnati, OH
Society of American Military Engineers	June 80	Washington, DC
National Dredging Symposium	June 80	Blacksburg, VA
Transportation Research Board	August 80	Rolla, MO
Dredging Technology in 1980	August 80	Norfolk, VA
National Waterways Conference	Sept 80	Tulsa, OK
Tennessee Valley Authority	October 80	Knoxville, TN
Transportation Research Forum, "Inland Waterways Planning and Management"	October 80	Philadelphia, PA
American Waterways Operators, Inc.	October 80	Columbus, OH
American Society of Civil Engineers	October 80	Hollywood, FL
Dredging Conference	Nov 80	College Station, TX
State Highway and Transportation Officials	Nov 80	Las Vegas, NV
Transportation Research Board	January 81	Washington, DC
National Waterways Roundtable	January 81	Washington, DC
Arkansas Navigation Conference	March 81	Little Rock, AR
US Department of Agriculture	April 81	Washington, DC
National Dredging Meeting	May 81	Norfolk, VA
Briefing for Officials from the People's Republic of China	June 81	Washington, DC
Staff Briefing, Senate Subcommittee on Water Resources	July 81	Washington, DC
Review of NWS Recommended Plan with NCD	August 81	Ft. Belvoir, VA
Review of NWS Recommended Plan with SWD	August 81	Ft. Belvoir, VA
Dredging Convention	August 81	Norfolk, VA
Water Resources Conference	Sept. 81	St. Louis, MO

U.S. Naval Academy Symposium	October 81	Annapolis, MD
Society of American Military Engineers	October 81	Pittsburg, PA
Society of American Military Engineers	October 81	Chicago, IL
American Society of Civil Engineers	October 81	St. Louis, MO
American Assn. of State Highway and Transportation Officials	October 81	Chicago, IL
Dredging Conference	Nov 81	New Orleans, LA
Transportation Research Forum	Nov 81	Washington, DC
Transportation Research Board	January 82	Washington, DC
Inland Rivers, Ports and Terminals	March 82	Pine Bluff, AK
Propeller Club of the U.S.	June 82	Nashville, TN

APPENDIX 5

NWS PUBLICATIONS

Appendix 5

NWS PUBLICATIONS

A variety of study publications and draft technical reports have been distributed to interested organizations and individuals. The availability of these materials was noted in NWS Information Bulletins and in handouts at the various open public meetings.

The materials made available to the public include:

1. NWS Plan of Study
2. NWS 24-map series "Waterway System and Commodity Movement Maps"
3. NWS Abridged Workplan
4. General pamphlets and brochures
5. NWS Histories:
 - a. History of Commercial Waterways and Ports of the United States; Volume 1: From Settlement to Completion of the Erie Canal, by Robert W. Harrison.
 - b. The United States Waterways and Ports: A Chronology; Volume 1, 1541-1871; by Robert W. Harrison.
 - c. The Evolution of Vessels Engaged in the Waterborne Commerce of the United States, by Robert Taggart.
 - d. Western Tributaries of the Mississippi, by D. Clayton Brown.
 - e. History of Great Lakes Navigation, by John W. Larson.
 - f. History of the Gulf Intracoastal Waterway, by Lynn M. Alperin.
 - g. History of Navigation and Navigation Improvements on the Pacific Coast, by Anthony Turhollow, Benjamin F. Gilbert, and K. Jack Bauer.
 - h. A History of Transportation on the Upper Mississippi and Illinois Rivers, by Roald D. Tweet.
 - i. A History of the Waterways of the Atlantic Coast of the United States, by Aubrey Parkman.
 - j. A History of Navigation on the Lower Mississippi River, by Floyd M. Clay.
 - k. A History of Navigation in the Ohio River Basin, by Michael C. Robinson.

6. Trends in Waterborne Commerce of the United States, 1947-1979.
7. Reports of NWS Technical Elements (draft reports distributed by IWR and final reports available through NTIS):
 - a. Traffic Forecasting Methodology
 - b. Commercial Water Transportation Users
 - c. Overview of the Transportation Industry
 - d. Review of National Defense, Emergency and Safety Issues Affecting the Waterways
 - e. Analysis of Navigation Relationships to Other Water Uses
 - f. Waterway Science and Technology
 - g. Engineering Analysis of Waterways Systems
 - h. Evaluation of the Present Navigation System
 - i. Evaluation of Alternative Future Strategies for Action
 - j. Analysis of Environmental Aspects of Waterways Navigation
 - k. Findings and Conclusions
8. Summary Documents for NWS Public Meetings:
 - a. Preliminary Evaluation of the Existing Waterway System, September 1980.
 - b. Preliminary Evaluation of the Existing Waterway System and Strategies for Action, November 1980.
 - c. NWS Preliminary Staff Conclusions and Recommended Plan, Summary Document, July 1981.
 - d. Speeches presented and meeting summary, NWS Public Meeting, July 1981.
9. National Waterways Study Fact Sheets: October 1980, April 1981, and June 1982.
10. National Waterways Roundtable, Papers and Proceedings, April 1980.
(Available from the U.S. Government Printing Office.)

Most of these materials have been distributed on request to interested organizations and individuals. In many instances the NWS maps and literature have proved to be valuable tools for individuals doing waterway related research, investment planning, transportation and marketing research, as well as a host of other activities.

The NWS final report A Framework for Decision Making, along with a summary document, the map set, history volumes, roundtable proceedings and final technical element reports, are available to the public by ordering through NTIS or the U.S. Government Printing Office.

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) US Army Corps of Engineers, coordinators, meetings, interviews, steering committee, interagency and public.		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This publication briefly discusses the philosophy of public involvement--Corps, interagency and general public--throughout the term of the National Waterways Study, 1977-1982, and documents the nature of that involvement. Each meeting is identified and in the case of public meetings attendees are listed. The publications distributed to the public are also listed.		

