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NATIONAL SYMPOSIUM ON THE STATE OF AMERICA'S DRINKING WATER TO BE HELD IN CHAPEL HILL

The Research Triangle Universities (University of North Carolina at Chapel Hill, North Carolina State University, and Duke) and the U. S. Environmental Protection Agency are sponsoring the National Symposium on The State of America's Drinking Waters to be held on September 26 and 27, 1974, at the Carolina Inn in Chapel Hill. The Institute is serving as Secretariat to the Symposium and the following organizations are cooperating sponsors: American Society of Civil Engineers, American Water Resources Association, American Water Works Association, and the Universities Council on Water Resources.

The Symposium is especially timely in light of recent Congressional action on the "Safe Drinking Water Act of 1974" and pending revision of the 1962 "U. S. Public Health Service Drinking Water Standards," events which will profoundly affect the future of America's Water Supplies.

Some of the topics and speakers to be presented include:

The Keynote Address - "Impact of the Safe Drinking Water Act of 1974" - James H. McDermott, Director, Water Supply Division, Environmental Protection Agency, Washington

"Drinking Water Standards in 1974-Development Criteria" - Benjamin Pringle, Chief, Criteria and Standards Development Branch, Water Supply Division, Environmental Protection Agency, Washington

"Drinking Water Standards in 1974-Surveillance and Program Evaluation" - Roger D. Lee, Chief, Surveillance and Technical Assistance Section, Water Supply Division, Environmental Protection Agency, Washington

"Researching Environmental Health Hazards in the Water Environment" - David P. Rall, Director, National Institute of Environmental Health Sciences, Research Triangle Park

"Epidemiology of Water Supplies" - James Hughes, Epidemiologic Intelligence Services Officer, U. S. Center for Disease Control, Atlanta

"Viruses" - Mark K. Sobsey, Assistant Professor of Environmental Virology, UNC-CH

"Organic Chemicals" - Henry J. Ongerth, Chief, Bureau of Sanitary Engineering, California Department of Public Health, Berkeley

"Inorganic Chemicals" - Gunther F. Craun, Sanitary Engineer, Water Supply Research Laboratory, National Environmental Research Center, Cincinnati

"Evaluating State Drinking Water Quality Surveillance Programs" - Gary D. Hutchinson, Chief, Water Supply Branch, Region IV, Environmental Protection Agency, Atlanta

"Drinking Water Strategies in 1974 and Beyond" - Daniel A. Okun, Kenan Professor of Environmental Engineering, UNC-CH

"Problems in Small Systems" - Charles E. Rundgren, Assistant Head, Water Supply Branch, Sanitary Engineering Section, North Carolina Department of Human Resources, Raleigh

"Design and Financing of Small Systems" - Cecil W. Rose, Chief Engineer, Community Services Division, Farmers Home Administration, Washington

"Problems of Individual Supplies" - Donald H. Taylor, Chief, Technical Assistance Section, Water Supply Branch, Region IV, Environmental Protection Agency, Atlanta

"Legal Controls for Protecting Underground Sources of Drinking Water" - William E. Cox and William R. Walker, Research Associate and Director, respectively, Virginia Water Resources Research Center, Blacksburg

"Emergency Supplies" - Frank A. Bell, Jr., Special Project, Water Supply Division, Environmental Protection Agency, Washington

"An Approach to Provision of Rural Water Supplies" - Stanley S. Zimmerman, Executive Director, National Water Demonstration Project, Washington

"State of the Art: Design" - Paul W. Prendiville, Partner, Camp, Dresser, & McKee, Consulting Engineers, Boston

"State of the Art: Rates" - Steve H. Hanke, Associate Professor, Johns Hopkins University, Baltimore and University of California, Berkeley

"State of the Art: Training" - Ray E. Shaw, Superintendent, Water and Sewer Department, Greensboro, and Chairman, Committee on Training Publications, American Water Works Association

"State of the Art: Mathematical Optimization" - Rolf A. Deininger, Professor of Environmental Health, University of Michigan, Ann Arbor

"State of the Art: Demand Forecasting" - Donald T. Lauria, Associate Professor, Department of Environmental Sciences and Engineering, UNC-CH

"Symposium Summation" - Eric F. Johnson, Executive Director, American Water Works Association, Denver

Additional information on program, registration, lodging, etc., may be obtained from the Institute.

HUGE PHOSPHATE MINE PLANNED IN BEAUFORT COUNTY

Governor James E. Holshouser has announced plans by North Carolina Phosphate Corporation for a \$220 million investment in phosphate mining and phosphoric acid production in Beaufort County.

The existence of rich phosphate deposits in Beaufort and adjacent counties is well known. Texasgulf, Inc. began extracting phosphate in 1966 at Lee's Creek, near Aurora and, to date, has invested about \$175 million and has almost 900 employees at its site.

Phosphate operations by their magnitude alone can be a cause for environmental concern. The form of mining used by Texasgulf requires the withdrawal of about 60 million gallons per day from the underground Castle Hayne aquifer. The effects of this activity on ground water pressures and quality have been the subject of studies by the State Office of Water and Air Resources and the Institute. A new study by Dr. Jabbar K. Sherwani of the University of North Carolina at Chapel Hill will extend his previously developed computer simulation model of the Castle Hayne aquifer to evaluate state ground water management alternatives.

A second environmental concern in Beaufort has been the effects of phosphate operations on surface water quality, particularly in the Pamlico River, Estuary, and Sound. Phosphates, in some waters, have been linked to such water quality problems as algal "blooms" and cultural eutrophication. The Institute, Texasgulf, and others, have sponsored considerable research and investigations on water quality relationships in the Pamlico.

In recognition of these concerns, and others, the Governor also announced the formation of a special task force to study the impact of this and of other developments in the area. The task force director is Stephen G. Conrad, Director of the Division of Resource Planning and Evaluation within the State Department of

Natural and Economic Resources. Conrad, who has estimated the study will require at least a year, intends to look at effects on ground water, surface waters, land use, wildlife, and social and economic impact. In addition to state agencies, the task force will include representation from Texasgulf, the N. C. Phosphate partner companies (Kennecott Copper and Agrico Chemical), the Institute, and others.

NEW COASTAL COMMISSION APPOINTED

On July 10, Governor James E. Holshouser, Jr. appointed the 15-member Coastal Resources Commission, which will administer the Coastal Area Management Act passed by the recent General Assembly. On July 18, the Commission members met in Morehead City to be sworn into office and launch a two-day session. Just a few hours later, the Commission held a "listening session" to give the general public and local officials a chance to speak their minds. Eleven of the 15 members were chosen by Governor Holshouser from a list of nominees submitted by local governments in the 20-county coastal area.

The Commission, an agency of the Department of Natural and Economic Resources, will administer the Coastal Area Management Act. Some of its major responsibilities include approval of land-use planning guidelines, approval of land-use plans, designation of areas of environmental concern, and issuance of permits for construction in those areas of environmental concern.

Governor Holshouser's appointments:

Thomas D. Eure of Morehead City, owner and operator of T. D. Eure Construction Company of Beaufort. His company specializes in bulkheading, dredging, bridge construction, erosion control, and other types of marine construction. Mr. Eure was appointed as commission chairman.

Frank Furlough, Jr., 53, of Columbia, a local fish dealer and retired Coast Guard lieutenant commander. He is president of the Sound and Sea Fisherman's Association, which represents some 265 commercial fishermen in a 10-county area, and is a director of the North Carolina Fisherman's Association.

Lorenzo D. Smith, 29, of Holly Ridge, operator and manager of Paradise Pier in Surf City and a graduate of the University of North Carolina at Wilmington with a B.S. in biology and emphasis on marine biology.

Dr. Parker Chesson, 32 of Elizabeth City, dean of instruction at the College of the Albemarle. He is a member of the American Institute of Biological Sciences, North Carolina Academy of Science, and National Wildlife Federation. He received his Ph.D. in science education from North Carolina State University.

H. Glenn Lancaster, Jr., 27, of Windsor, who owns farms in Washington and Bertie County. He also owns coastal beach property.

Dewitt L. Darden of Plymouth, who has been with Weyerhaeuser Company's land use planning group for 30 years. He is responsible for land use of 650,000 acres lying principally in the coastal area.

David Stick, 55, of Dare County, president of the Kitty Hawk Land Company who has been an outspoken advocate for land use planning in the coastal area. For 18 years, he planned and supervised the development of the Southern Shores community.

T. Erie Haste, Jr., 39, of Hertford, owner of City Marina in Perquimans and Camden Counties. He is a member of the Hertford Town Council.

Dr. Gene R. Huntsman of Havelock, who directs research for the National Oceanic and Space Administration. He is a member of National Wildlife Federation, Ducks Unlimited, former president of the Carteret County Wildlife Club, and former board member of the North Carolina Wildlife Federation.

Charles C. Wells, 37, of Wilmington, a vice-president of Waccamaw Bank and Trust Company.

Axson Smith, mayor of Belhaven and owner-operator of River Forest Manor, a marina, hotel, and restaurant on the Intracoastal Waterway. He is also a commercial fisherman.

Doug Powell of Wilmington, Chairman of the New Hanover County Board of Commissioners and owner of the Surf Motel at Wrightsville Beach. He is treasurer of the Cape Fear Council of Governments and chairman of its Land Use and Transportation Planning Committee.

William A. Kopp, Jr., of Bolivia, chairman of the Brunswick County Board of Commissioners. He is a businessman.

Roberts Jernigan, 58, of Ahoskie, a State Representative from the Fifth District. He has served in the House since 1963. He is president and treasurer of Ahoskie Meat and Provision Company.

Walter Davis, 54, of Elizabeth City, a North Carolina native who has residences in North Carolina and Texas. He is president of Basin Products, Inc. of Midland, Texas and has a long association with the petroleum industry.

JUSTICE DOUGLAS INTERVENES IN CONTROVERSIAL GROWTH CONTROL PLAN

A federal district court order that overturned the controversial growth control plan imposed by Petaluma, Calif., was stayed by U.S. Supreme Court Justice William O. Douglas, acting in his capacity as circuit court justice. The stay was granted upon the request of Petaluma, and it is effective only until a response is submitted by the Construction Industry Association of Sonoma County, an association of developers who opposed the plan.

The Petaluma plan, which limits new housing in the municipality to 500 units per year, was declared unconstitutional in April by Judge Lloyd H. Burke of the U.S. District Court for the Northern District of California. Rejecting the city's

contentions that a growth limit was needed in order to maintain adequate sewage treatment facilities and water supplies, Burke ruled that it violated the fundamental right to travel.

Petaluma, arguing that a "strong likelihood" existed that it would prevail on appeal, requested a stay of the decision from the U.S. Court of Appeals for the Ninth Circuit, but the request was rejected. Following issuance of the stay by Justice Douglas, an attorney for Petaluma said, "Our intention is to reinstate the plan and to go ahead with it."

COASTAL PLAINS REGIONAL COMMISSION SUPPORTS DEEPWATER TERMINAL STUDY

An article in an earlier issue of The Marine Newsletter reported on the subject of deepwater oil terminals, often called superports. That article suggested that the Coastal Plains Region could not afford to delay consideration of the possibility of locating such a facility in its area.

The Coastal Plains Regional Commission and eight private corporations are now supporting a deepwater oil terminal feasibility study to explore the possibility of locating such a facility off the coast of the Carolinas and Georgia as well as a suitable site onshore for an associated refinery. Baychem Corporation, a petrochemical firm, has joined seven oil companies--Exxon, Tenneco, Cities Service, Ashland, Mobil, Shell, and Chevron--as the private interests sponsoring the feasibility study.

The prime contractor conducting the study is Robert R. Nathan Associates, a consulting firm which has had previous experience in the preparation of studies pertaining to this subject. The environmental part of this study is being conducted by the Coastal Zone Resources Corporation of Wilmington, North Carolina. J. Kenneth Schafer is the director of the study, which is expected to be completed in September.

NATIONAL WATER COMMISSION REPORT

Beginning with the June 1973 issue, the NEWS has summarized chapter-by-chapter the more important findings and recommendations of the National Water Commission.

Chapter 13

Federal-State Jurisdiction in the Law of Waters

The National Water Commission studied the relations between the Federal Government and the States and their citizens over water rights. State officials are troubled by the difficulties in coordinating Federal water claims and uses with State water law, administration, and planning. Owners of privately held water rights

fear that Federal actions (based on recent court decisions) will impair or destroy their property without compensation. Adjudication of the conflicting claims is made difficult by uncertainties about the ability of a plaintiff to bring a law suit against the United States.

In the United States, water law has evolved under a system of dual sovereignty. Accordingly, it is separated into the Federal law of water on the one hand and 50 independent sets of State laws on the other. Each State has developed its own set of water laws and the Federal water law has been superimposed thereon. At one time it was thought that, apart from the navigation power of the United States, water law was exclusively State law. For example, the U.S. Bureau of Reclamation for many years developed its irrigation projects on the basis of water rights obtained in accordance with State laws and procedures. Now it is recognized that every owner of a water right can be, and often is, simultaneously and inconsistently affected both by State law and by Federal law.

Sometimes State and Federal water laws are compatible and work in harmony with one another. Other times they are incompatible. When conflict occurs, it is not impossible to strike a balance to insure effective and efficient performance of the economic system to optimize the yield which society derives from its scarce water resources. Neither jurisdiction, Federal nor State, need be subordinated absolutely to the other, particularly if the result is a reduction in social and economic efficiency. Effective compromises are constitutionally possible.

One expert has observed: "If (Federal Law) fits with the state law into a single pattern it creates no problems. When it and state law clash, when gaps appear, when federal law upsets that which state law has set up, when federal law undoes the tenure security that states give to property rights, when federal rights override instead of mesh with private rights, then there is federal-state conflict in the field of water rights. There is confusion, uncertainty, bad feeling, jealousy and bitterness. To a substantial degree, this is what exists today.

No law can be enacted to give an absolute and unqualified assurance as to the future. Virtually all property rights carry with them some uncertainties. But, to the extent that the law can be formulated to minimize future uncertainties, or at least compensate for them, it serves the socially useful purpose of encouraging long-range planning and development, both private and public, for optimum use of resources.

The Commission believes that the conflicts described above can be settled and the uncertainties they generate can be resolved by appropriate congressional action. Accordingly, it recommends the adoption of a proposed "National Water Rights Procedures Act," the principles of which are set forth in the Commission Report.

Their recommendations are intended to preserve Federal powers but to hold the Federal Government accountable in court for injury to individuals owning State-based water rights. The recommendations also seek to integrate Federal water rights into State water rights administration.

Although the principal effects of the proposed Act would occur in the West, where water rights are highly systematized, Eastern States would also be benefited by it. States with permit systems could include Federal uses in its records, and Eastern water officials and water rights owners would be entitled to sue the United State when water rights disputes arose, since the proposed Act would waive the defense of sovereign immunity. Moreover, Eastern water rights owners would be protected against noncompensable takings under the navigation servitude and would have the benefit of the proposed Act's eminent domain procedures in connection with Federal water resource development.

To achieve the reforms which the Commission believes should be made with respect to Federal-State relations in the law of water rights, the Commission proposes a "National Water Rights Procedures Act" covering the problems (a) conforming Federal water uses to State procedures; (b) future use of water on Federal reserved lands other than Indian Reservations; (c) the navigation servitude and the rule of no compensation; (d) eminent domain procedures; and (e) sovereign immunity.

VERY HARD WATER

A cannon which shoots a one-quart jet of water at the velocity of 9,800 feet per second is being developed for the Department of Transportation's Federal Railway Administration. The experimental model was designed under contract by Terraspace, Inc., of Rockville, MD, for possible use in tunneling work. When aimed at a cube of sandstone, limestone or granite, the rock breaks; and furthermore, the bit doesn't wear out. At this stage, however, it's a one-shot operation. The challenge is to give it a machine gun capacity for field work. Pressure of the jet reaches 650,000 pounds per square inch (psi) and the jet of water breaks rocks in much the same manner as a pick breaks ice.

According to the designer, Dr. John Cooley, the efficiency at pressures in the region of 500,000 psi is comparable to the best current tunneling methods. The cannon is powered by an oil hydraulic system that compresses nitrogen gas. Upon firing, the gas accelerates a 143-pound, seven-inch diameter piston up to a speed of 140 miles an hour in a distance of one foot. The energy is transferred to the water which is effective out to a range of several inches from the end of the nozzle. The

slug of water coming out of the nozzle has a jet pressure nearly four times higher than the pressure against the nozzle walls.

NATIONAL HOME SEWAGE DISPOSAL SYMPOSIUM

The American Society of Agricultural Engineers (ASAE) is planning the National Home Sewage Disposal Symposium at Chicago's Conrad Hilton, December 9 & 10, 1974, preceding the ASAE Winter Meeting there. The meeting is planned for the purpose of exchanging information and discussing problems associated with the design, operation, and regulation of individual home sewage disposal systems. Ten other organizations are cooperating with ASAE in this venture.

The proceedings will be published following the symposium; these are intended to provide a "state-of-the-art" summary of current knowledge, equipment, maintenance and installation methods. The complete program is available from ASAE Headquarters, at 2950 Niles Road, St. Joseph, Michigan 49085.

POSTDOCTORAL RESEARCH OPPORTUNITY

The National Research Council and the Environmental Protection Agency (EPA) recently announced the establishment of the NRC-EPA Research Associateship Program. This program provides opportunities for basic and applied research to be conducted in the EPA National Ecological Research Laboratory at Corvallis, Oregon. Awards will be made on a competitive basis.

Regular Associateship appointments will be awarded to persons with less than five years of postdoctoral research experience. Senior Research Associateship appointments will be awarded to scientists of demonstrated accomplishment with more than five years of postdoctoral experience. The program is open to both U.S. and non-U.S. citizens.

Stipends for Associateships are: regular--\$14,000 per annum; and senior--to be determined individually. Stipends will be subject to income tax.

Applications must be postmarked on or before September 15, 1974. Supporting documents must be received by October 1, 1974. Awards will be announced in November 1974.

Research Opportunities will involve a study of the effects of environmental pollutants on all components of the terrestrial ecosystem. Specific areas include ecological modeling, soil-litter decomposition, and plant resistance to air pollution effects.

Application materials and further information on detailed areas of research are available from:

Associateship Office JH 606
National Research Council
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

STATE ATTORNEY NAMED GENERAL COUNSEL OF WATER RESOURCES COUNCIL

Theodore S. Farfaglia has been named by Director Warren D. Fairchild as the new General Counsel for the U. S. Water Resources Council. From 1973-1974, Mr. Farfaglia was with the North Carolina Department of Justice where he served as Special Assistant to the Attorney General, Environmental Matters, and was responsible for establishing its Environmental Law Division. Prior to employment with the State of North Carolina, he served 10 years as Judge-Advocate on active duty with the Air Force. While with the Air Force, he was thrice nominated as the Outstanding Air Force Judge-Advocate. He was also the 1972 Air Force nominee for the Outstanding Young Federal Lawyer.

Mr. Farfaglia graduated from the University of St. Louis with honors in 1963 and is a member of the Missouri and North Carolina State Bar Associations. He did his undergraduate study at Fordham University, including a year in Milan, Italy, as a participant of the Fordham's Honors Program.

The United States Water Resources Council, an independent Executive Agency of the U.S. Government, is composed of the Secretaries of Interior; Agriculture; Army; Health, Education, and Welfare; Transportation; Chairman, Federal Power Commission, with participation by the Secretaries of Commerce; Housing and Urban Development; Administrator, Environmental Protection Agency; Attorney General; Director, Office of Management and Budget; Chairman, Council on Environmental Quality; and the Chairmen, River Basin Commissions. Council activities encourage the conservation, development and utilization of water and related land resources on a comprehensive and coordinated basis by Federal, State, local government and private enterprise.

WATER RESOURCES CONDITIONS IN NORTH CAROLINA FOR JULY 1974

Scattered showers throughout the month caused a wide range in streamflow conditions across the state. Streamflow in the mountains was excessive (in the upper 25 percent of record for the month). Although flows were generally in the normal range in the Piedmont, streams were much lower in the Coastal Plain where most flows

were only about 1/3 of the long-term average for the month. Flows had receded considerably by the end of the month, and on July 31, flows ranged from about normal in the mountains to only about 1/4 normal flow in most of the Coastal Plain. No significant flooding occurred in the state during the month.

Ground water levels generally declined during the month, although most levels remained above the long-term averages.

. . . U. S. Geological Survey

SEWAGE TREATMENT PLANT AND SEWER CONSTRUCTION COST INDEX (1957-1959=100)

<u>Location</u>	<u>Plant</u>			<u>Sewer Cost Index</u>		
	<u>Values</u> <u>June1974</u>	<u>% Change</u> <u>June1973</u>	<u>%Change</u> <u>Mar.1974</u>	<u>Values</u> <u>June1974</u>	<u>% Change</u> <u>June1973</u>	<u>% Change</u> <u>Mar.1974</u>
Atlanta	182.73	9.4	5.1	198.73	11.0	4.6
National	202.53	10.8	6.1	224.62	12.5	6.7

WATER LAW REPORT PUBLISHED

A report entitled "Water Law in Relation to Environmental Quality" has been published by the Colorado State University Environmental Resources Center in cooperation with the U.S. Office of Water Resources Research. The study is a review of state and federal water-related laws affecting fish and other aquatic life and habitat. Copies are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia for \$4.50 per copy. The order publication number is PB 226-816.

FISH AND WILDLIFE ACT AMENDMENTS ON WAY?

A bill (HR 14527) to amend the Fish and Wildlife Coordination Act was reported by the House Merchant Marine Subcommittee on the Environment to the full committee July 31. HR 14527 would broaden the existing Act by providing for citizen suits, new reporting requirements, additional consultation on projects affecting fish and wildlife, and requirements for federal entities previously exempted by the Act.

HR 14527 would amend the existing Act to require that whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, widened, the channel deepened, or otherwise controlled or modified by any federal

department or agency either directly or by extending federal assistance through grants, loans, or contracts or by issuing permits, licenses, contracts, or leases, such agency must consult with the Fish and Wildlife Service, the National Marine Fisheries Service, and the agency or agencies designated by the appropriate state as having the administrative authority concerning the affected wildlife resources.

The language of the bill, which would cover all federal departments or agencies, including wholly owned Government corporations, is designed to bring the Tennessee Valley Authority under the requirements of the law. The existing Act exempts TVA.

The language of the bill, which requires consultation with the Departments of the Interior and Commerce and with appropriate state agencies, would broaden the existing law, which requires consultation only with the Interior Department.

HR 14527 also would require any involved federal department or agency to request a written report from Interior, Commerce, and appropriate state agencies. The report would state any views, comments, objections, and recommendations regarding a proposed project. The involved federal agency or department would be required to notify the public when it initiates consideration of a project.

Under the bill, any report prepared by Interior, Commerce, or state agency would have to be based on written findings of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service concerning direct and indirect effects attributable to the proposed project on fish and wildlife resources and project alternatives, modifications, or abandonment. The report would have to specify, to the extent practicable, measures recommended for wildlife conservation and development, lands to be utilized or acquired for such purposes, the results expected, the damage to fish and wildlife, and the measures proposed for preventing, mitigating, or compensating for such damages. Federal agencies and departments could not use estimates of losses in monetary terms as justification for adopting any recommendation in a report.

The appropriate federal agency or department would be required to comply with the recommendations of a report unless the head of such department or agency specifies in writing why adoption of any recommendation would be contrary to the public interest.

HR 14527 would require the appropriate federal agency or department to fund as a nonreimbursable cost the costs of providing, operating, and maintaining measures to prevent, mitigate, and compensate fish and wildlife damages. The agency or department also would be required to fund other costs, including those necessary for land acquisition and for operation and maintenance.

The bill would further amend the existing law by requiring that a federal agency carrying out projects on its own land would be subject to the same requirements as a federal agency carrying out projects on other lands. This provision is designed to cover such agencies as the Bureau of Reclamation and the National Forest Service.

HR 14527 would authorize citizen suits under the existing Act. The bill would authorize any person to commence a civil action against any person alleged to be in violation of any provision of the law or any regulation, order, or permit issued pursuant to the law. Action against a federal agency or department could be instituted for alleged failure to perform a mandatory duty.

WATER RESOURCES LEGISLATION IN THE CONGRESS

New Public Laws

House

H.R. 13221 Authorizing approximately \$13.9 million for the saline water conversion program for fiscal year 1975. Signed July 10, 1974.

Bills Introduced

Senate

S. 3365 To amend the Land and Water Conservation Fund Act of 1965.
S. 3366

House

H.R. 15875 To amend the Land and Water Conservation Fund Act of 1965, as amended, to establish a Save Outdoor America program.

H.R. 16008 To amend the Outer Continental Shelf Lands Act to insure that the Federal Government has available to it reliable information on the nature and extent of energy resources in the undeveloped areas of the Outer Continental Shelf.

H.R. 16082 To amend the Land and Water Conservation Fund Act of 1965 to increase the authorization of appropriation for the Land and Water Conservation Fund.
H.R. 16113

H.R. 16228 To amend the Coastal Zone Management Act of 1972 to broaden the planning and operating capabilities of the various States receiving grants under that Act so that they might better manage the development of energy-related activities in their control zones.

NEW PUBLICATIONS RECEIVED BY THE INSTITUTE

(Residents of North Carolina may borrow these from the Institute for a two-week period. Where individual copies are desired, readers are encouraged to request copies from the organizations issuing the publication. The addresses are provided by the News for this purpose.)

Abbreviations used throughout as follows:

ASCE	- Amer. Soc. of Civil Engrs.	USDA	- U.S. Dept. of Agric.
BWAR	- Board Water & Air Resources	USDC	- U.S. Dept. of Commerce
EPA	- Env. Protection Agency	USDI	- U.S. Dept. of the Interior
ERC	- Environmental Research Center	USGPO	- U.S. Gov. Printing Office
NCDNER	- N.C. Dept. Nat'l. & Econ. Res.	USGS	- U.S. Geological Survey
NTIS	- Nat'l. Tech. Information Serv.	WPC	- Water Pollution Control
NWC	- Nat'l. Water Commission	WQS	- Water Quality Standards
OWP	- Office of Water Programs	WRC	- Water Res. Center
*OWRR	- Office of Water Res. Research	WRRI	- Water Resources Res. Institute
SCS	- Soil Conservation Service	WRSIC	- Water Res. Sci. Inform. Center

Water Resources Planning

- "A Case Study in Interstate Resource Management: The California-Nevada Water Controversy, 1955-1968," (Cont. #147), May 1974, by W. T. Jackson, et al, WRC, U. of CA, Davis, CA 95616.
- "A Study of How Water Quality Factors Can Be Incorporated Into Water Supply Analysis," (IWR Cont. Rpt. #74-2), July 1973, by Ernst & Ernst, avail. from NTIS, USDC, Springfield, VA 22151.
- "Social, Economic, Environmental, and Technical Factors Influencing Water Reuse," (PRJERO25-1), Dec. 1973, by A. B. Bishop, et al, WR Lab., Col. of Eng., UT St. U., Logan, UT 84322.
- "The Demand for Agricultural Water in Utah," (PRWG100-4), Sept. 1973, by M. H. Anderson, et al, WR Lab., Col. of Eng., UT St. U., Logan, UT 84322.
- "Conference Proceedings: Interaction of Land Use Planning and Regional Water Quality Management," Feb. 1974, by E. R. Kaynor, WRRRC, U. of MA, Amherst, MA 01002.
- "Management and Administration of Ground Water in Interstate Aquifers, Phase II," June 1974, by M. W. Bittinger and Assoc., Inc., P. O. Box Q, Fort Collins, CO 80522.
- "The Market Structure of the Southern California Water Industry," June 1974, by L. D. Schelhorse, et al, Copley International Corp., 7817 Herschel Ave., P. O. Box 1530, La Jolla, CA 92037.
- "Planning and Analysis of Metropolitan Water Resource Systems," (Tech. Rpt. #84), June 1974, by E. A. McBean, et al, for OWRR, WR and Marine Sc. Cntr., Cornell U., Ithaca, NY 14850.
- "Conference on Recycling Treated Municipal Wastewater Through Forest and Cropland," (EPA-660/2-74-003), Mar. 1974, by W. E. Sopper, et al, PA St. U., for EPA, avail. from USGPO, Wash., DC 20402.
- "National Water Commission: A Review of Some Issues, Proceedings of a Seminar Series," (Bul. 75), July 1974, by P. M. Ashton, WRRRC, VPI & St. U., Blacksburg, VA 24061.

- "Studies in Environment - Vol. V - Outdoor Recreation and the Environment," (EPA-600/5-73-012e), Feb. 1974, by B. Kimmelman, et al, Homer Hoyt Inst., for EPA, avail. from USGPO, Wash., DC 20402, Price \$1.40.
- "Elements in a Decision Framework for Planning the Allocation of Coastal Land and Water Resources With Illustration for a Coastal Community," (#36), 1973, by R. N. Allbee, et al, WRRRC, U. of MA, Amherst, MA 01002.
- "Systematic Development of Methodologies in Planning Urban Water Resources for Medium Size Communities, Economic and Environmental Impacts of Surface Runoff Disposal Systems," (T.R. #39), Dec. 1973, by W. L. Miller, et al, Purdue U., WRRRC, West Lafayette, IN 47907.
- "Report of Proceedings at Public Hearing Concerning the Reclassification of Various Streams in the Catawba River Basin," Nov. 1973, NCDNER, Water & Air Quality Control Com., BWAR, Raleigh, NC 27611.
- "New Classifications Adopted and Assigned to Various Waters in the Catawba River Basin," BWAR, Raleigh, NC 27611.
- "Report of Proceedings at Public Hearing Concerning the Reclassification of Various Streams in the Chowan, Pasquotank, Lower Roanoke (From Caswell-Person County Line to Albemarle Sound) and Tar-Pamlico River Basins," June 1974, NCDNER, Water & Air Quality Control Com., BWAR, Raleigh, NC 27611
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