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NEEDS ANALYSIS SEMINAR IN COASTAL ZONE MANAGEMENT

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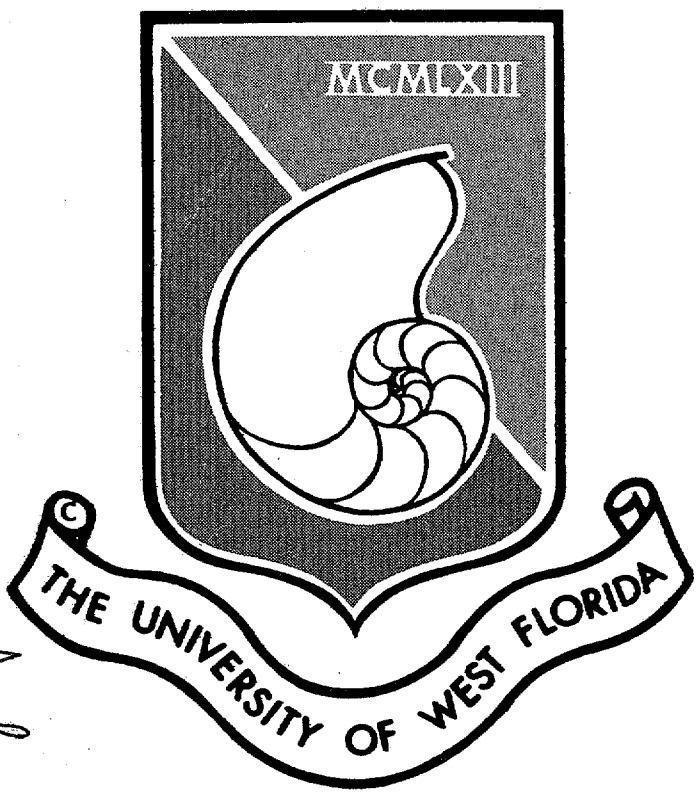

University of West Florida

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COASTAL ZONE
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A NEEDS ANALYSIS SEMINAR IN COASTAL ZONE MANAGEMENT

Held At

The University of West Florida

Pensacola, Florida

U.S. DEPARTMENT OF COMMERCE NOAA
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Preface

In 1975 the University of West Florida received an Institutional Grant under Title IX of the 1965 Higher Education Act to develop an emphasis in Coastal Zone Management in its Master of Public Administration Program. As a part of that grant, the University was obligated to conduct workshops, conferences or symposia for practitioners in Coastal Zone Management.

In planning for workshops, the Public Administration faculty discovered that the precise needs for professionals in Coastal Zone Management had not been identified. We could not effectively plan for workshops without identifying the specific needs for training, data collection, research and other forms of support. Therefore, we sponsored the Needs Analysis Seminar reported in this publication.

Professor Michael Bradley had been serving as a consultant to the Master of Public Administration program in developing the Coastal Zone Management emphasis, and we invited him to chair the Needs Analysis Seminar. An attempt was made to identify every professional across the United States in the field of Coastal Zone Management. We sought the names of professionals in both the private and public sectors and professionals at every level of government service. Over fifty individuals and agencies were invited to attend this seminar, and fifteen accepted our invitation.

This publication is a transcript of the one day session of the Needs Analysis Seminar. In editing the transcript, very few changes have been made. An effort was made to render comments into sentences which would be acceptable by the standards of good grammar; however, the participants have not had an opportunity to edit their remarks or correct the transcript in any way. Therefore, any errors appearing here are my responsibility.

The Coastal Zone Management program promised that copies of this transcript would be provided to those participating and those who were invited but unable to attend. We hope that this publication proves to be useful to practitioners and academics in the field of Coastal Zone Management. The University of West Florida invites comments, evaluations, and suggestions which we may use in strengthening the Coastal Zone Management emphasis in the Master of Public Administration program.

In closing, I must acknowledge those who assisted in making the Needs Analysis Seminar possible. First, we must acknowledge our great debt to Professor Michael Bradley. He designed the four core courses or seminars which make up the Coastal Zone Management emphasis in the Master of Public Administration curriculum, chaired the Needs Analysis Seminar, and offered the University of West Florida faculty his wise counsel in a dozen other ways we will not specify here. As the chairperson of the Needs Analysis Seminar he was open, gracious, and obviously informed of events in the field. A graduate of the University of Michigan's Natural Resource Planning and Conservation graduate program, Professor Bradley holds an appointment in the University of Arizona Department of Hydrology and Water Resources.

I wish to acknowledge the contributions of Jim L. Munro and Guenther G. Kress, members of the Public Administration faculty at the University of West Florida. Thomas L. Yancy, Television Producer and Director in the University's Instructional Media Center, transcribed our sessions. Gwendolyn Y. Bowman, Graduate Assistant, assisted me in editing the transcript. Ron Goley, a graduate of the M.P.A. program and a specialist in energy policy, acted as executive secretary by preparing invitation lists and coordinating human and

other resources essential to conducting the Seminar. Katherine L. Trine, Secretary to the Faculty of Political Science, typed the manuscript and prepared it for publication.

Donald M. Freeman
January 19, 1977

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Participants in the Needs Analysis Seminar

George W. Allen, South Atlantic Division Coastal Zone Management Coordinator, Corps of Engineers, Department of the Army

Michael Bradley, Assistant Professor, Department of Hydrology and Water Resources, University of Arizona.

Keith Buttleman, Senior Environmental Planner, Division of State Planning and Community Affairs, State of Virginia.

Jack Cowley, President, Florida Shore and Beach Preservation Society.

John Hall, Area Supervisor, Environmental Assessment Division of the National Marine Fisheries Service.

Dick Hickman, Southeastern Division, Exxon Company, U. S. A.

Jennifer Hodnette, Staff of the West Florida Regional Planning Council.

Chris L. Jensen, Executive Director, Florida Petroleum Council.

James B. Kirkwood, U. S. Fish and Wildlife Service.

Bill Martin, U. S. Geological Survey.

Gladys Matteson, Staff of the West Florida Regional Planning Council.

Duane Moxon, Superintendent, Seminole Indian Agency, Bureau of Indian Affairs.

Ernest Premetz, Special Assistant to the Regional Director, National Marine Fisheries Service.

Kenneth Prest, Environmental Engineer, Gulf Power Company.

John R. Thompson, Gulf States Marine Fisheries Commission, New Orleans.

Others Attending the Needs Analysis Seminar

Hank Becker, Public Service Education Fellow, CZM Program, University of West Florida.

Gwen Bowman, Graduate Assistant, CZM Program, University of West Florida.

Donald M. Freeman, Chairman, Faculty of Political Science, University of West Florida.

Ron Goley, Energy Specialist, M.P.A. Graduate, University of West Florida.

Ray Harry, Public Service Education Fellow, CZM Program, University of West Florida.

Guenther G. Kress, Assistant Professor of Political Science and Coordinator of the M.P.A. Program, University of West Florida.

Mike Lopez, Public Service Education Fellow, CZM Program, University of West Florida.

Jim L. Munro, Professor of Political Science, University of West Florida.

Diane Ricksecker, Public Service Education Fellow, CZM Program, University of West Florida.

Greg Sciavone, Graduate Assistant, CZM Program, University of West Florida.

Darryl Segraves, Public Service Education Fellow, CZM Program, University of West Florida.

Sandy Stairs, Reporter, Pensacola News-Journal.

I must say that this is a very impressive turnout!

I would like to welcome all of you to this seminar in Needs Assessment for Coastal Zone Management.

My name is Michael Bradley; I am now at the University of Arizona in the Hydrology and Water Resources Faculty, and I am a consultant for the University of West Florida in the Development of a Master's in Public Administration Program in Coastal Zone Management. What we are trying to do is develop a graduate program that is related directly to contemporary and future needs in Coastal Zone Management. One of the important parts of this program is this seminar. Let me explain this to you. The seminar will precede a larger formal meeting later this year. When we sat down to think about what to talk about later this year, we decided that we should talk about the needs of practitioners in Coastal Zone Management, and there are no persons better qualified to express those needs to us than you, who are the practitioners, and since we want to respond to your needs, we divided the meeting in two; this early one day session, the Needs Seminar, and a second session which may be addressed to the needs that we identify today.

We also will be trying to do a couple of other things this afternoon. I'll explain to you in my formal presentation a little later about the curriculum we are trying to develop: our Master of Public Administration Program. I will explain to you about other possibilities to attend our larger seminar. Perhaps some of you have people you would like to name who would be good candidates to attend our second seminar.

Generally, I hope that we will be able to have a good discussion this morning on some of the needs you feel are important in the evolving field of Coastal Zone Management. This is a seminar. I run seminars in a certain way, which is usually open, and you don't have to raise your hand to be called

upon; you can speak up. And one of the first things that I like to do in a seminar is identify everyone at the table so we all know who we are and who we are talking to, and since I require that of everybody else, I guess I'll start off and do that myself. I am Michael Bradley, and as I mentioned, I am at the University of Arizona and in response to a question that I always get "How did I get interested in Coastal Zone Management?" Well I am a coastal person. I was born and raised in San Francisco. I started my professional life as a Political Scientist, took an undergraduate degree in that subject and economics, at the University of New Mexico and for Graduate work was fortunate enough to go to the University of Michigan, where I completed my masters degree in Public Administration in the Institute there and a Ph.D. in the School of Natural Resources under the direction of some very interesting and unique ecologists and planning people. From Michigan, I was most fortunate to be able to spend a post doctoral year at the Scripps Institution of Oceanography in LaJolla, California which is a basic science research institution, one of the two largest in the country dealing specifically with ocean resources and ocean problems. From Scripps, I became a private consultant in environmental impact assessment and then went to my current position at the University of Arizona where I am dealing with ground water systems, ground water resources and their exploitation and use. I jumped at the chance to come to the University of West Florida and serve as a consultant and as an organizer of this seminar and meeting with the University of West Florida faculty to help develop this curriculum in Coastal Zone Management. I am problem-oriented and a pragmatist; I am not a theorist; I don't theorize "grand thoughts" about how things should be; instead, I like to talk to people who do it through their finger-tips and find out how things, in fact, do work. That is what I specialize in in teaching my students. I will have for you a brief

summary of what we think a Coastal Zone Management option in an MPA program should consist of after the rest of the introductions. But, I think it is necessary first that we get to know who we are and where we're from so perhaps we will start over here.

I'm Chris Jenson; I am based in Tallahassee with the Florida Petroleum Council. The Petroleum Council is American Petroleum Institute affiliated; we represent the supplying companies in Florida; we have a committee that deals with exploration and production, and that group of course is vitally interested in the Coastal Zone. Other than that, I have no academic credentials, other than that I came up the hard way, and started out my life with my father in a dairy farm business. How I got with Petroleum out of that I don't know; the only connection that I can see is that they are both liquid (Laughter), and they both use tankers on the highway. I was born and raised in Ocala, Florida and from there matriculated later at the University of Florida and then went back home to Ocala and from then on to the Florida Petroleum Council.

I am Dick Hickman, currently serving as the Environmental Conservation Manager for the Exxon Corporation out of New Orleans. My background and my entire professional career has been in the production end of the business and of course Exxon with operations here in Florida (and I would like to say, with hope for off-shore Florida oil someday) has a vital interest to Coastal Zone Management. I don't think that there is a great deal more that I can say; I am interested in being here to get some thoughts and hopefully, to have some input as to what we can come up with in Coastal Zone Management planning.

I am Artie Premetz, special Assistant for the Regional Director of the Southeast Region, National Marine Fisheries Service in the National Oceanic and Atmospheric Administration. Basically, we cover the eight South-atlantic and Gulf states and Puerto Rico and the Virgin Islands of this particular region.

I have been with the federal government some thirty years; I have worked with a lot of the types of people that are represented here, starting out as a research biologist at Woods Hole, Massachusetts in the North Atlantic investigations and following that was in and out of Washington for several years. I spent about eleven years as the Deputy Director for the Great Lakes and Central Region of the old Bureau of Commercial Fisheries. For eight years I was back in Washington again, just prior to coming here about a year ago. Basically, my interests have covered a broad spectrum; that is, anything to do with fisheries.

My name is John Hall; I am the Area Supervisor for the Environmental Assessment Division in Panama City, Florida. The Environmental Assessment Division is a Branch of the National Marine Fisheries Service which is a Branch of the National Oceanic and Atmospheric Administration which is a branch of the Department of Commerce, and as a result we end up pretty far down the line sometimes when it comes to figuring out who and where we are and where we operate. We are the problem-oriented branch of the National Marine Fisheries Service. Our Function is to respond to federally permitted or licensed actions in the United States and in the Waters of the U.S. Our primary area of responsibility involves getting back to these licensing and permitting agencies with official decisions in national environmental policy after 1960. We are a pretty busy organization; we average about 350 work situations a month, but that is not too bad; we have two people to handle it. Our area of responsibility runs from the East Pearl River of Louisiana through the Coastal Zones of Mississippi, Alabama, Florida, Puerto Rico and the Virgin Islands; so we are pretty busy. My background has been somewhat in research, somewhat in Oceanography and somewhat in applied Biology, as is the case right now. I graduated from the University of Iowa and immediately went to sea; I wasn't so sure I wanted

to do that at that time. I spent a couple of years on an oceanographic vessel in the Indian Ocean, came back, went to school in Paris; then I went back to sea again on the same vessel; I don't know what possessed me to do this, but we worked off the Eastern Pacific side. I came back, went to the University of South Florida in Tampa, got a Master's degree there, and I went to work at the National Marine Fisheries Serivce. I was in research until about a year ago, and then for some strange reason I decided I wanted to do this kind of business; but I must admit I enjoy it, and it does keep me busy.

I am Jack Cowley and I guess actually that I wear two hats. I am, first of all, employed by the Santa Rosa Island Authority here in Pensacola. The Santa Rosa Island Authority is an agency of Escambia County, and was established for the purpose of developing that portion of Santa Rosa Island which is owned by Escambia County. Now this Island, as most of us who live here know, is beautiful, is some fifty miles long, and is less than one-half mile wide in any one area. It borders on the Gulf of Mexico on the one side and Santa Rosa Sound and Pensacola Bay on the other side. The Island Authority I work for is charged with the responsibility of developing this portion of the Island in what it deemed to be in the public interest, and this has been my job for the last twenty-four years so I'm sort of a practitioner, you might say, having been concerned with trying to develop the beach with whatever information we could find. When we started out, there was very little information available about coastal problems and shore problems and erosion problems, and we had to learn a whole lot the hard way, you might say. The other hat that I'm wearing is: I have been associated with an organization that was established about twenty years ago called the Florida Shore and Beach Preservation Association. It was organized by a group of us who were concerned that there was a need for public awareness and governmental awareness of the importance of preserving

and of restoring Florida's beaches. So we established this organization, and we have worked in this direction for the last twenty years. We have made considerable progress; we feel that our efforts have been somewhat responsible for the establishement of the Department of Natural Resources in Tallahassee. They now have a Bureau of Beaches and Shores which is very effective. We think we've been successful in bringing to the attention of the legislature some of the needs for protecting and preserving our beaches, and I have the pleasure (the honor you might say since I don't know how much pleasure there is in it) of being the President of the Florida Shore and Beach Preservation Association this year. We are extremely interested in contributing what we can to this meeting, but really I'm looking forward to learning more than anything else.

I'm Duane Moxon, Superintendent of the Seminole Indian Agency, Bureau of Indian Affairs, Hollywood, Florida. I, like the gentleman down the table, grew up on a dairy farm, and I will say that one thing that it prompted me to do was to get an education, because I sure wanted to get away (Laughter). I took my undergraduate work in Agronomy and later did graduate work in Ecology at the University of Nebraska. I started out my career pretty much in soil science and got involved in the site and condition inventory of range and forestry areas in the Great Plains, Northwest and the Lake States. I was involved in the management of resources and then in general administration.

Bradley*

Next we have our host; I will let him introduce himself.

I'm Don Freeman, Chairman of the Faculty of Political Science. You all have corresponded with me in some fashion. Welcome to the University of West Florida; we appreciate your coming to help us.

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*After initial introduction; speakers will be identified by last name only as a headnote to the speaker's statement.

My name is Kenneth Prest, and my title with Gulf Power Company is Environmental Engineer, but I'm really not an engineer at all. My responsibility with Gulf Power Company is to head up their Environmental Licensing and Control Department and, within that functional capacity, I'm responsible to assure that in the construction, the planning, the operation of power generating units and their associated transmission lines that natural resources are considered as part of the planning as well as other economic and engineering aspects. It's my responsibility (subsequent to the planning, the construction of these system components, the power generation units and transmission lines) that they are all operate under Florida State and federal regulations. Therefore, I am involved frequently with state and federal regulatory agencies at all levels, both in the development of appropriate regulations as well as in the context of regulations that are not so appropriate. I am also responsible for developing various site environmental assessment statements (or environmental impact statements), for setting the objectives, and utilizing consultants and other informational resources to prepare these assessments. I try to make them as understandable and reasonable as they can be. My background is a little bit diverse: I have an undergraduate degree in Biology and I have worked with the Bureau of Commercial Fisheries, National Marine Fisheries Service at the Biological Laboratory in St. Petersburg, Florida. Since 1970 I have worked in the environmental field in utilities; specifically, two years with Florida Power Corporation in St. Petersburg, Florida managing the various environmental research programs that the company had at that time. Subsequent to my tenure with Florida Power Corporation, I went to the University of Florida, and got a graduate degree in Environmental Engineering Sciences. My emphases at that time were in two areas: radiological health, and systems ecology with HTO. That sounds a little bit weird perhaps in this

field, but the radiological aspect I felt was important; one aspect of power generation which I felt that I did not have an undergraduate or fundamental appreciation for was that of nuclear energy, so my emphasis in that subject was to train myself and diversify further in that regard. I feel that environmental problems are systems problems; they involve natural resource systems as well as human systems, or social systems. It's very important that we understand the basic fundamentals of system functions when we apply these to solving problems, so I have very strong personal interests in both education and in systems problems. I guess I have one other privilege too that has just come about very very recently; that is the opportunity to teach a course, PLS 500, in this Coastal Zone Management curriculum. And I'm really excited about developing this course and teaching it, and I am excited about the whole program. I have been looking for an opportunity to get back into education, to do some teaching and to try to bring some of the problems that we are experiencing from day to day in the electric power field and in the environmental field directly into the classroom and hopefully, elicit from the classroom situation some solutions we have overlooked by being, perhaps, dogmatic in some ways. So I am excited for the opportunity both to participate directly in the program and to be here at this particular seminar. I look forward to an outstanding day.

I'm Bill Martin, Environmental Staff Specialist in the U.S. Geological Survey in Metairie which is a suburb of New Orleans. We are the conservation division of the survey, which is also part of the Department of Interior. Our duties include acting as the regulatory agency for oil and gas operations in the Gulf of Mexico which, of course, includes a five state area, but primarily includes Louisiana and Texas. We have five district offices in the Gulf Coast area, along with our main office in Metairie. The environmental staff's

primary duties include handling: environmental impact statements, environmental assessments, and coordination of efforts with the other agencies. We work primarily with Fish and Wildlife, National Fisheries, and the Bureau of Land Management in coordinating the environmental stipulations which are required for the leases and the operations of all the production drilling in the Gulf. Basically, my background is as follows: I was born in Arkansas on a farm which I left to attend LSU from which I graduated. I worked in industry a number of years, both in South Louisiana and overseas, and in 1970 I came to the Survey.

I'm Jim Kirkwood with the Fish and Wildlife service in Atlanta. I'm the Coastal Ecosystems activities leader for the Division of Biological Services. We are responsible for the coastal zone management plans; working with the states and developing the plans in off-shore gas and oil exploration; and keeping the regional director advised. There are two of us in Region Four which includes six coastal states, Puerto Rico and the Virgin Islands. I've been in this job for about six months now; before that I worked for the Battelle Memorial Institute as a research Biologist; and before that at the Bureau of Commerical Fisheries in Alaska working with king crab and shrimp primarily. I have a Ph.D. from the University of Louisville in Ecology.

My name is George Allen, and I'm with the Army Corp of Engineers, but I am not an engineer. I did my undergraduate studies at the University of Michigan in Forestry, became a submarine officer, got interested in Marine Biology and went back to take a degree in that. I have been in the marine conservation work, having been Director of Fisheries and Wildlife for the State of Alabama, a job which I found does not involve fisheries-management so much as it does political expediency as well as people management. I joined the

Corp of Engineers as a District Biologist, and, in the process, have ended up at the Division in Atlanta where one of my other assigned duties, which I find is taking most of my time, is Division Coordinator for the Coastal Zone Management program as it relates to the Corp of Engineers. Our territory is very much like that of the National Marine Fisheries: from Virginia, down the South Atlantic Coast, over to the Pearl River in New Orleans. I am very interested to see what's going to happen today.

I'm John Thompson, currently with the Gulf States Marine Fisheries Commission: a five state compact chartered by Congress about twenty-six years ago to coordinate activities among five states along the Gulf of Mexico. We're alternately for or against the "feds" or the states. Before I came with them I was with the old Bureau of Commercial Fisheries for a number of years, had a short stint in academia, and did some work with industry. I have been with some aspect of fisheries for about twenty years now. I have degrees from Albion College in Michigan and Duke University in North Carolina; while at Duke I found that the South was a much better place to live than the North. I'm down here, I guess, for good, though I did spend a couple of years in Washington and a year or so in Gloucester.

(Bradley)

Well, that makes an even dozen of us and quite an interesting even dozen too. I'm certainly glad all of you came today, and I hope that it is worthwhile for all of us in the payoff.

In my outline of things to talk about, I have things broken out that don't break out very well. At least, they don't break out well in experience, and I'm sure they won't break out well in our discussion. But let me start by explaining a little bit about the curriculum we're trying to develop here in Coastal Zone Management. Once again, we're trying to develop a problem-oriented

curriculum. A student can go to school all kinds of places in this country and get theory till the world looks level and not have anything to back it up when he finishes his degree. But here, I think, the philosophy will be to leave theory behind and seek something that you have learned through application, you've learned through your fingertips, or you've learned about by talking to people who do it on an (8:00 a.m. to 5:00 p.m.) basis. We're trying to develop training for Coastal Zone Management. It's called a track; it means emphasis, in the Master of Public Administration Program. It gives us a great deal of opportunity, but some constraints too. Let's talk about the constraints a moment to get them out of the way. The Master of Public Administration degree is usually a two year degree program, and in some places, it requires a thesis but in some places it doesn't. Here it doesn't require a thesis, but it does require a practicum, a practical experience. Among the core courses, the basic fundamental courses required of all candidates in the Master of Public Administration Program, are some of the basics of that discipline: things like, institutional studies, the process of public policy making, and the process of decision making. And so several of the units that are available for the student are sort of absorbed in the fundamentals of the discipline of Public Administration. But after all, the degree is in Public Administration and it should be such; candidates should come through with the basic understanding of that field. This is an interesting degree to use for a new program in Coastal Zone Management. At times the MPA degree has been used for training city managers. Academics started offering the degree about thirty years ago after a reform movement in the country. They offered MPA degrees for City Managers and MCP degrees for City Planners and had a little different disciplinary tracks for both those fields. But the MPA degree has expanded in importance, particularly since the end of the Second World War, because the bureaucracy, and I don't

mean that derogatorily, the organized part of daily life, has expanded so much. You are all familiar with exactly what I'm talking about. We don't do anything alone anymore. We do it through our organizations; we do it through committees; we do it with memoranda; we do it with budgets; we do it with people management, and with political expediency too. So people have been looking at the Master of Public Administration degree for a number of years as more than just training for City Managers. I am not saying anything against that profession; it's an excellent profession, and an outstanding career choice, if that's what you want to do. I think we have a unique opportunity to develop within the MPA degree here, something a little different, something that will build and expand upon that fundamental public administration core, allowing less of the traditional but more of the highly relevant. For instance, one of the fields, if you want to call it a field, one of the things covered in a MPA degree for CZM, will be some sense of the role of natural science. Now, CZM, as I see it, is science management. You can't manage the use of resources, without understanding the scientific interactions of resources or the systems basis for the resources. My views are very similar to those of Mr. Prest. He studied with Howard Odum; I studied with his brother Eugene, and I know quite well what he's talking about, when he talks about natural resource ecosystems. It has been my contention from the start (when I came here as a consultant) that natural processes (by that I mean the natural processes in ecosystems, biological factors, and the flow of energy and material through the ecosystems) should be the number one fundamental "other thing" that a student in the MPA with a CZM emphasis studies. Then he has a sense of the natural role of the Coastal Zone; he has a sense of the tides and the weather, the fisheries and living resources, and where phosphates come from. So the first and primarily most important expansion of the traditional MPA degree program would be the area of natural processes, ecology and science. I have some sub-headings under that to give you

roughly an indication of what I mean. Subheading: ecosystems analysis. How do you analyze an ecosystem? How do understand how energy flows and or how important a bird is, or what difference it is that the sun shines or it doesn't; and I don't mean on a very sophisticated level, I mean on a well-rounded basic level. It has been my experience as a consultant, as a talker, as a teacher on natural resources policy that it's not the most sophisticated, highly complex, mathematical models that help an administrator on a day to day basis; it's his basic fundamental insight, it's his ability to organize what he sees, in terms of basic biological relationships, not whether he can integrate an equation to the Nth power or not, but whether he can look out there and visualize a food chain; that's what's important. The second natural process subheading I had identified, is something relatively new, called energy accounting, or net energy analysis, and I included this not as a rigorous requirement, but as an example of something we should discuss in a seminar for our students so they know something about this new technique. Ideas of energy analysis are deceptively simple; it's the kind of thing that once you hear it explained you wonder why we haven't been doing it before, and these ideas are generally attributed to the two brothers Odum, who several years ago started with their ecosystems models and basic energy accounting. They would look at an ongoing natural system, look at the energy going in and look at the energy going out to see how efficient the system is. They trained a number of students in the fundamental ideas of energy analysis, and the students were picked up by the Governor of Oregon, who in his executive office developed a whole planning scheme based on net energy analysis. All they do is transfer some logical and basic ideas of accounting over to energy and try to determine the energy costs and benefits of doing something or of not doing something. It seemed pretty esoteric, but three years ago it seemed pretty important and right up until the present time people who

talk about energy analysis and energy assessment are very much in demand. I get calls all the time from people in federal agencies who are now doing energy assessment and want to know about students who can do energy accounting and look at a project and determine the energy costs and benefits, as well as the dollar costs and benefits. Not that one supersedes another; not that you do one without looking at the other; but that you do with energy analysis a little something extra and you see your project in another light; rather than just straight money economics, now you look at a project in terms of energy efficiency. If this fundamental resource is going to be as scarce as we have a hunch it will be in the future, energy accounting just makes good sense to me.

And the third natural process I have identified is some appreciation for ocean sciences. Now, this is going to be a course in the Coastal Zone Management program but a difficult thing to get a hold of: a management scheme based upon a geographic interface between the land and water. There is nothing similar to it that I'm familiar with, but I think a student in this Coastal Zone Management program should be able to indicate, either by course work or by his own reading or research, a fundamental appreciation for ocean sciences. And, in my experience it's best to choose one of the ocean sciences and understand that well, and it helps you to understand the others. If you understand biological systems, you are more likely to understand physical systems. If you can understand the physical system it then helps you understand food chains in the biological system.

So that is natural processes: the first "other-thing" that a student in this Coastal Zone Management program would study or would be directed to read in. The second thing is policy processes and institutions. Now that part of the curriculum is pretty well covered here at the University of West

Florida. They do have an organized, well-run program in public administration; they have available seminars and courses for graduate students in organization theory, in budgeting, in decision making, in operations research, and so on. I felt the ongoing courses might possibly be expanded by some directed readings or seminars in things like natural resources decision making and maybe a seminar in case analysis dealing directly with natural resources problems. There are some excellent cases available; for example there are some dealing with fish and wildlife agencies, since a number of political scientists have been interested in fish and wildlife agencies for a long time. There is an excellent case on leasing off-shore oil rights in the Gulf as a matter of fact, and there are some other case materials available on other natural resources decisions. By the way, it's been the fashion for the past decade in the Political and Social Sciences to reject the case analysis approach and instead to focus most of the attention upon the quantitative approach, a movement which I applaud, but I don't think it should entail the rejection of a case analysis approach. Think for a moment about the important professionals in our lives: doctors, lawyers, and many important businessmen who run big firms and their training by the case analysis approach. The case analysis approach has been very successfully used at Harvard Business School; it's used in every medical school; all medical students have these living cases to look at, and that's exactly the way lawyers are trained. So I have made a pitch in the development of this curriculum that, especially in things like natural resources decision making, case material be used to try to let the student intuitively understand conflict and how many variables are operating in a decision situation. Most important, students need to understand what it is to be responsible for a decision once you make it. You can write an equation all day, and if it's descriptive that's fine, but it's a little hard to find

responsibility in there. I am more interested in the student having a sense of the responsibility of the decision once it's made.

Another thing to look at under the policy processes and institutions rubric might be science, policy and administration: that is, some appreciation for the role of science and the interface between science and administration, dimensions which have been very mutually antagonistic in times past. I have been at Scripps Institution of Oceanography, and I know basic scientists feel that the administration is just put there to frustrate them, or to block them from what they want to do, but I was also able to perceive that science is as much a bureaucracy and as much an administratively organized endeavor as anything else. Although the scientists still tell themselves that they are doing basic research, they still do it with memoranda, budgets, and you know, getting along with the department head, and what have you. And I have a hunch that science policy is something that might be important for a Coastal Zone administrator to at least know a little bit about.

My last sub-topic under policy processes and institutions is a favorite interest of mine these days: called long range, natural resources planning, which I don't know anything about. I'm interested in talking about long range natural resource planning because I don't know anything about it, and the more I talk about it, the more I find out that everybody is interested in talking about it and nobody knows anything about long range planning. How do we keep out of embarrassing situations and tight boxes, like the way we find ourselves with energy? How do we plan for alternatives in the future, instead of foreclosing options in the future, and things like that? So that's number two, basically: the area of policy processes and institutions.

Number three and I guess third most important in my scheme of things is economic processes. It seems fundamental to me that the coastal zone is a

very important economic resource, and to ignore the economics of what happens there is just to ignore reality to an extent that it will make you a very inefficient coastal zone administrator. Now I mean all kinds of economic things: the private market that operates there; the goods and services that are sold; not only industries there, but the recreationist who is attracted to the coastal zone; or the natural resources that are found there that have to be managed in such a way that the economic utilities are at least optimized some way and not wasted. Under this heading, I have listed things like natural resource economics; public sector economics, including cost benefit analysis; the economics of external effects, which is the economists' way of talking about the nasty second order consequences that happen when you only pay attention to the first order effect of what you want to do (like "I want to sell this product because it makes me a profit," instead of them thinking, "well there may be a second order consequence that I'm going to have to deal with also"), and externalities is just the term economists use to talk about that.

My fourth area (now bearing in mind this is going to be hard to cover in a two year program), is something I call natural resources and environmental law. Six years ago I wouldn't have included it in a public service education curriculum. I would have thought natural resources and environmental law is taught in law schools for law students and that's the way it should happen. During the past six years we have had things like the National Wildlife Policy Act of 1970, the Coastal Zone Management Act of 1972, the Endangered Species Act of 1973 and the Marine Mammals Protection Act of 1972 enacted. Energy legislation has been passed till the world looks level. I am positive that land use legislation is coming; it hasn't yet, but it will come. I think a coastal zone administrator without some fundamental appreciation of natural resources and environmental law will just be ill-prepared for the kinds of

things that face him in the future. Now I have in mind some topical headings under law; things like, land use planning in coastal zones, which I hope would be a way of integrating traditional fundamental concepts of law, like zoning and equity, and dealing with some of the new problems that we're facing in coastal zones and environmental impact assessment. I was interested to hear how many of you have had experience with that already. The law is only five years old, and it has not completely changed the way we do business, but I know of no other federal legislation that in five years has spread itself among all federal agencies, all federal actions and requires now a different way of doing business than before. I have had some experience with environmental impact assessment, and personally I'm not satisfied in a number of cases with the assessment, its quality, and so on; but putting that aside, I don't think you can argue that that law has been revolutionary in a very fundamental sense.

And finally, among the things I have submitted to the University of West Florida to cover in a Coastal Zone Management program, is what I call quantitative methods. Now here I ran into a little trouble; I reversed current practice; current practice would call quantitative methods the most important subject in the curriculum and to insist that everybody have seminars in statistical analysis, operations research and running computers; these subjects would dominate a great portion of students' organized class work. I reversed current practice for a reason. First, I think the previously mentioned substantive fields are more of what a coastal zone manager will need in training, but I have kept quantitative methods in because, from my own experience, I know that it is also necessary to understand the use of statistical analysis, the use of computer programs, and their applications to an administrative situation. But my contention is that it doesn't take half the organized course

work. You can get the training in one or two good seminars, just like you can understand, you can get a good appreciation, for natural processes in one or two good seminars that stress basics, that make sure you understand the basics and then don't lead you down the garden path of what all the theorists say is important these days, but give you a good, well-rounded basic education to quantitative methods. I had in mind perhaps a seminar in basic statistics to teach the student how to organize data; the seminar would not necessarily cover all the theorems and all the formulas, but how to organize data, how to figure out a mean or variance and build a regression analysis and make sure that the student understood those basic things and then maybe have some time on the computer. That is about it. Beyond that, I think the whole technology of quantitative methods is changing so fast that to try to take a student up to professional level and ability in computer programming right now would be to waste his time. The languages are coming out so fast, and they are becoming so sophisticated in themselves that they are becoming easier for an operator to use. The practitioner can talk practically in English to a machine now; you don't have to translate it into Fortran IV. I'm not guaranteeing the results; I am just saying it's getting easier to use a computer than it was in times past. (I noticed some smiles around the table and I'm sure we'll have some discussion about it later.)

Those are the five areas of competence I had identified for a student in Coastal Zone Management. The difficulty then was getting this organized into some kind of class work, some series of seminars. I have available for you a list of possible seminars to be given at this university, including an outline of each seminar, the topic outline of what the seminar should discuss and some possible sources, books to read, articles to read, and so on, and I'll share that with you in a moment. What I'd like to do is ask what I've left out.

(See Addendum I for the Coastal Zone Management Curriculum.)

(Prest)

I have one thing to add to the curriculum: perhaps, under natural resources and environmental law, there needs to be some emphasis given or an appreciation for the administration and regulatory process. That is not just the development of an impact statement, or the development of the licensing statement or permit, but an understanding of what happens to it, who reviews it? How is it reviewed? How is it compared to, or how is it shown to meet the law? How does it get a public hearing? What opportunity does it have to be counteracted or rejected? Who are the people that are reviewing an application? What kinds of backgrounds do they have? The process is the thing, so to speak; it's what happens to that application as it goes through. How are regulations developed? Who makes input to regulations? How do you change a regulation? I've had people comment to me that my company, Gulf Power, had requested several years ago a variance from the air regulations, and the very word variance was almost construed to be immoral. Once a law is on the books, you meet that law regardless, but a variance is a part of the process. The law does certain things, and it doesn't do certain things. It meets certain needs, and it doesn't meet certain needs. More people need an appreciation for the process of administration and the whole regulatory process.

(Bradley)

I think this is a very good point.

(Premetz)

Well, we've gone through quite a bit here, building a gerneralist. I've got a basic question, "What are we going to do with him?"

(Bradley)

I've heard of this before: train generalists, and what are they going to do?

I'm building, in a sense, generalists in Water Resources at the University of Arizona, and, from experience, I know what they do. They go off and write environmental impact statements. And I wrestle with the problem; I mean, I am not trying to be cute. You've got a choice: to educate a young person for thirty years somewhere, or for the first day somewhere. You've got to make real trade-offs; you don't get the thirty years unless you get past the first day. And the first day is when the boss looks at your record and says "Gee, this is all great, but what are you going to do for me?" On the other hand you can hire all kinds of people. Organizations that I've been associated with have all kinds of people employed that have told the boss specifically what they can do on the first day. I'm a Civil Engineer; I can design that bridge to withstand the storm for certain climate; I know where each rivet goes; I know where each nail goes; I can put it down on a blueprint, and that's what I can do for you, and I'm worth a Civil Engineer's salary. And you know as well as I do that there are people that have had their first day's experience for twenty years over and over, and I think if I had to (now I may be wrong, and I'm certainly open to feedback), if I had to choose, I would rather try to orient the person for thirty years, rather than his first day.

(Premetz)

Well, basically, I asked the question for one reason: I think what we have to start with is identifying the job opportunities for people of this type. In other words, with this type of training, how are we going to use them? Another thing seemed to come through to me in this discussion: your discussion is focused on developing MPA's, and I think the MPA program that you have can be extremely useful in exposing people in other disciplines to the Coastal Zone Management concept. For example, a biologist working in a laboratory, doing research, can get a better appreciation for coastal zone programs. . . a hydrologist,

or whatever. In other words, you can help the people that are in the sciences to gain a better appreciation for the relevancy of the information they are generating, how it's going to be used, and how it's going to be tied in.

Another thing that came to mind too was the possibility of setting these people up in some sort of internship program or work experience, or sending them out in field study teams, where they can really get down and sink their teeth into real problem areas. Now, I am sure many of the federal agencies would be very happy to make these sorts of work experiences available. In other words, they want somebody else to take a good hard look at some of the problems they are trying to solve. Whether they use the information gleaned from interns or not, it does give them practical experience, and sometimes it does come up with new and useful ways of doing things.

One area that seemed to be missing in the list that you gave us was an area I'll call Social Anthropology, the people factor. Now, we talked about biological systems; we talked about economics; but there is still another factor, and that is the social factor: what turns people on, what sorts of things do we have to do, and this is another area that could be cranked in. For example, showing the relevancy of the social factor to the present time, Congress has under consideration bills to extend our jurisdiction out to 200 miles. We are being enjoined by this legislation to manage on an optimum-yield basis considering the biological, economic and social factors. Now what are those social factors? What kind of criteria do we apply in making a decision for the allocation of a particular resource for a particular use? Many people are wrestling with these problems, but I think that it's time that you got the academic community involved and really sink their teeth into this. How do we optimize our resources?

(Bradley)

That's a real good point, especially your point about the social effect.

(Jensen)

I'd like to emphasize a little more what I call the "political realities" of Coastal Zone Management, because what you will produce is a frustrated individual, unless he understands the politics of society. I was in a meeting a couple of weeks ago where conservationists and environmentalists were talking, and it was their concern that they were producing very capable individuals, but about the first year out in the real world, they become very despondent because they haven't been taught to cope with or to understand the political process and all the procedures one must go through to achieve something.

(Bradley)

An important part of that is the regulatory process.

(Jensen)

Well that's politics, once it gets to the board level. If you're dealing with staff, that's a different thing, but once you get to presenting it to a board, then all these other forces come into play.

(Bradley)

That's right, and then if you don't have the social presence to be able to appreciate the political siutation, where the power lies and who to smile at, you will lose. That's a trivial example of what you're talking about; I know that the social anthropology that you are dealing with here, and discussing, is a little broader than my example.

(Jensen)

Well it gets back to something else, and you've got to remember that I'm a dairy farmer (Laughter). Let's take a situation where you want to zone something; let's go back to basic urban zoning. Urban zoning is influenced in it's final

form as to whether it's commerical, or residential or preservation, or park, or what have you, by the political, or financial circumstances of the politician that is making the decision, and he's making the decision on behalf of the people he represents. He doesn't represent the staff; he's got his voters out there, and if the voters don't approve it, then he's going to get the message and he's going to disapprove it. Let's talk about one particular instance in Orange County, where they had a development approved in Swanton; it was strictly political; everybody knew that it was wrong; advice from everybody was "don't do it! don't do it!" The specialists said "you've got a problem with water management, don't do it!" But the politicians voted it. You've got to realize the pressure that the decision maker is under and what causes that pressure.

(Hall)

This would fit very nicely under your case analysis approach.

(Bradley)

That's the point I was just going to make; the whole reason behind the case analysis approach, is not just to spend seminar time with some of our students saying that the mathematical derivation of the water analysis of Miami-Dade County looks like this, but instead, saying the zoning board, faced with pressure from a large-scale housing developer on one hand and the Santa Rosa Island authority on the other, might operate this way, or might respond to the pressure of other interests.

(Jensen)

But the real fact of the matter is, it's not the developer, it's the man that sold the land to the developer that's putting the pressure on us.

(Allen)

Having got lumps all over my head in this process, I would like to point out

that every time I get through getting another lump, I sit back and wonder what happened and try to analyze it and try to adjust so I won't get another lump as a result of the same problem occurring again. And you (Bradley) while you claim to be a pragmatist in some points, I don't think you can overlook basic theory. Every time something goes haywire, whether it's in the field of social studies, or whether it's in the field of biological management, or political science, it's not the first time that it's happened; nobody develops anything new; you might develop a variation of a familiar theme, and if you look back you will find that somewhere, somebody had the same thing and had enough sense to put it down on paper, and people read it, believed it, and it became a theory. And I don't think you can overlook it. I mean Aristotle came out with a good one a long time ago with his Golden Mean theory, and if coastal zone management isn't a direct application of Aristotle's Golden Mean, I'll eat my hat!

(Bradley)

I think your point is well taken. I don't want to give the impression that I'm a non-theorist, in your sense of the theory, because when I stress basic appreciation and understanding, I think that theory is what I was talking about.

(Prest)

I'd like to comment on that, because I think that Mr. Premetz and Mr. Jensen and also you Mr. Allen are all on the same track. In terms of describing a program and my perspective of some of the basics that would be involved in a systems orientation, I would like to discuss the relationship of organisms (both biological organisms that are not people and biological organisms that are people) as they interact. I see two major systems, and I think this is the theory that we need to begin to develop for an understanding of systems theory. There are two major systems theories, one includes natural resources and how they function with their energy input and energy being dispersed as

heat and so on. They run, or they function on this basis. Well social systems do the same thing. They are organizations of people, and they have certain needs, food requirements, fuel requirements and so on, in order to exist, to build houses, to build industry, to relate to each other, and they give off certain waste products and so on. And in the process of functioning (that is, of existing as a social interaction), we get such things as economics; we get such things as politics and regulations, we get such things as the law and the methods of trying to measure and understand social interaction. So, my perspective of a unifying approach to Coastal Zone Management and any natural resource or environmental management would be a system's approach. That would be our basis upon which to learn as much as we can, both empirically and otherwise, how systems function, generically and to see the relationships between natural systems and man made systems. That's not to say that we'll be able to predict with any precision or accuracy what's going to happen next; but we'll have a good idea as we begin to look at changes or project changes whether this change is going to be to the betterment of mankind, including his relationship to natural resources, or to the short-term or long-term detriment. We won't have the answers, but at least we will be going in the right direction, and we will have some theory or basis on which we can look back and make comparisons.

(Bradley)

That's one of the best pitches for systems analysis and systems ecology I've heard recently.

(Hall)

Taking another approach to the curriculum, I think you ought to be pragmatic to begin with by defining just what the heck are the laws that we are going to be operating under. What's apparent now is that we have a lot of federal laws and we have a lot of state laws that are enacted. Many of us are operating

under these laws, and what happends is they write a new law like the Coastal Zone Management Act and you end up by saying "Well here's our new law, but as long as it doesn't effect the way the other laws operate, it's o.k." I think one of the things you're going to have to start out doing is just telling these students that these are the constraints that you're going to have to operate under. And once you make that point, then you can get into systems analysis, but at least lay the legal foundation of what this field is all about.

(Premetz)

I think you have brought up one point, when you mentioned state laws. One of the things that strikes me here is the absence of people at the state level, particularly in natural resources. Were these people invited?

(Bradley)

I believe there were a lot of people invited at the state level, but unfortunately we couldn't fund people at this first session. It's not a big trip, but a guy would probably need per diem paid. I have a hunch that's what happened. If I can do it at all, they surely won't be missing from the second meeting because with the Coastal Zone Management Act a lot of it is supposedly going to be done by the states. And that's not only a source of jobs; that's going to be one of the real sources of initiative and interest, we hope. The same is true with land use planning, and through experience, the same is now true in twenty-two states with envirionmental impact assessment.

(Jensen)

To bring you up to date on something that is happening within the state, let me tell you that you have one agency developing a plan that is required and then you have another agency that is going to implement the plan, and the hierarchy doesn't really know for a certainty whether that agency is going to implement the plan. So you do have some confusion in Tallahassee right now.

(Bradley)

Well, apparently that's happening not only at the state level; we have a letter from the Interior Department, Bureau of Outdoor Recreation from a fellow we invited who couldn't come. He offers a thought in his letter on the "needs information" for a university program in Coastal Zone Management. Let me just quote this to you; I read it this morning, and I said, gee this is great. "It seems to me that Public Managers involved in Coastal Zone Management need to fully understand that the key to the successful implementation of the program is careful attention to all aspects of coordination, communication, and cooperation, between and among the public and the private institutions and the effective people in coastal zones. A great difficulty here is that a university curriculum is generally lacking in the knowledge of techniques that effectively and efficiently promote coordination, communication and cooperation." And that's a very well taken point. I am not sure I know how to teach techniques, but I certainly recognize that here's a fellow in the field, working on a day to day basis, and he says what we don't have is people who are integrators, who are coordinators, who really know how to gather diverse bits of information and diverse logics and diverse responsibilities and mold them together into a package that is Coastal Zone Management.

(Thompson)

This is very true, having hired and sometimes fired and promoted otherwise qualified people, I found the hardest thing to find was a person who could communicate and who could gather these various bodies of information together into a whole. We had a lot of Biologists we could send to sea and forget about.

(Bradley)

Yeah, they are the ones who do that first year over and over.

(Thompson)

Yes, we could not send them out to various commissions or various bodies because of their limited skills and overspecialization. I am a little bit worried about starting out to build an educational program at the graduate level for generalists; this should have come a long time before graduate school, I believe.

(Hickman)

I think that points out the need for use of the case study approach, because I think that you can see a lot of mistakes that have been made or a lot of favorable things that have taken place by studying the processes that have gone on before.

(Premetz)

Yes, basically all Coastal Zone Management is a system of trade-off analysis, if you are planning and managing. You've got to take a look at all the options and figure out what the tradeoffs are going to be. It isn't like back when I first started out working on some of the pollution problems in the Great Lakes Area. The retort that you usually get; well what do you want? Fish or Chops. The public said both. I don't know whether to answer it the same way today.

(Allen)

There is one thing I think you should keep in mind, and I am sure that you are aware of it, and that is that not all people are basically inclined to be what you might call program coordinators. There are some people that could go to school for a thousand years, and all they would learn to do would be to irritate everybody else. (Laughter)

(Bradley)

I think I know what you're talking about. (Laughter)

(Allen)

Then there's the fellow that's just got a natural flair. The man that appreciates the fact that agency coordination is not done through agencies; it's done through individuals in the agnecy. And going to school . . . this is something that the faculty can determine if the fellow has it or not; I mean, you watch some people go and they come into a meeting and they stand there like a stump; you might as well have sent a recorder. Then you run into the guy who has diarrhea of the mouth; you might as well have sent a parrot! (Laughter) Somewhere, again, we come to the mean, and just sending a boy to school or a girl to school is not going to do this; it's going to take some experience; in fact I dare say that after a person has worked in his particular field of endeavor for about ten years, and little by little he reaches out and touches the other sectors with which he's going to be involved; only then will this individual be able to be an organization coordinator, and all the degrees in the world isn't going to help.

(Bradley)

Ten years ago I didn't see that, but you know after a few years experience, that the more experience you get, the more you see.

(Martin)

For your MPA candidates, what will most of the undergraduate degrees be in?

(Bradley)

Apparently there is not a restricted entry undergraduate degree; in fact, among the students taking the Coastal Zone Management seminar, I was introduced to a couple and one of them is in Biology, Marine Biology in this instance. Degrees could be in Economics, could be in Political Science, could be in Engineering, could be in other basic sciences; earth science would be a good background.

(Martin)

I was thinking that the Engineers, Biologists, and Geologists with an advanced degree (similar to the Oceanographers who may have a Biological or Geological B.S. degree) might have an advantage over some of the others as far as job opportunities.

(Bradley)

Yes, that is a fact, and one of the things that I'm really interested in talking about a little bit is job opportunities from another's perspective. What kind of internships are available, and what are your impressions about when a person should enter an internship, and what is he likely to take away from it? But let me make an observation before you make your point. One of the hardest things in a seminar like this is getting people talking but I notice we've done that pretty well. It's an interesting subject and I didn't anticipate any difficulty

(Fifteen minute Coffee Break)

(Bradley)

Well, I have another couple of announcements. A question was asked this morning about having no representatives of the state planning agencies with us. We do. I would like to introduce Keith Buttleman, who is with the Division of State Planning and Community Affairs in Virginia. And I also understand that we have a representative of one of the Florida Regional Planning Councils here, and I would like to introduce Gladys Matteson who represents the West Florida Regional Planning Council.

During the break, I had a few minutes to talk with a local reporter for the newspaper who informed me that it sounded like a very interesting thing we were trying to do. Her experience has been to come through a Journalism

curriculum and then be told when she got her first job to forget all that stuff that she had learned in college; college didn't prepare her at all for what she was going to be as a working, on-the-job reporter, which is directly what we were talking about before.

I would like to take this opportunity to say two more additional sentences about theory. We got ourselves into a box about theory, and the way that we express the box is this: We say to each other, well that is a good theory but it doesn't look good in practice, and how many times have we said that to one another? That is malarky. A good theory works in practice; at least that is what I consider a good theory. Something that works in practice; that is why I think it's vital to talk to practitioners and people who practice when trying to develop theory, which is the point made here this morning. Aristotle's Golden Mean has, in fact, worked in practice for a couple of thousand years. That is what is a good theory: not because of the way it was expressed, or the rigor and precision of the elements, or the way it could be put on the board, but because it in fact worked in practice. These kinds of theories, I remain convinced, can come out of case analysis.

Now case analysis <u>can be</u> a deadening experience. The cases can be poorly written; they may not explain conflicts; they may not offer insights that help you build theory; those, I would immediately, like you would, reject. On the other hand, some cases are excellent. They deal with the realities of decision; they deal with who is responsible, and what pressure was placed where, and why the pressure was placed there, and why the decision was made the way it was. I think those types of cases are excellent heuristic devices for graduate students.

(Prest)

Also of importance is the way those cases are communicated. One of the things

that impressed me about the orientation and direction of this particular needs analysis session is that it draws on the outside community; that is, those practitioners in the field, and when you combine the experience and the practice that is currently evolving outside of academe with the case and its communication, it certainly has a lot of meaning.

(Bradley)

Okay, we have an hour before lunch. I propose that we do the following. I have available for you, xerox copies of suggested proseminars for this program. What I'd like to do is pass them out to you and be open for comments from you on this at any time. That is today, or after you have taken them home, or back to the office, and had an opportunity to look at them. If you see something that looks silly or something that looks like it needs to be expanded, please jot down a couple of notes and ship them back to us here so that we can use that feedback and try to develop proseminars that pay off for these graduate students. It's a two year commitment that they are going to make, and we don't want them to be the kind of people that go out on that first day I was talking about and have their boss say to them, "oh you came through the courses in coastal zone management at the University of West Florida; forget all you learned; it's all different." We would rather have them be the kind of people he recognizes as someone who knows what it's all about.

A couple of other ideas were tossed about during the break that I thought I'd share and solicit some comments on if there are any. We were discussing agencies that might have been invited and for some reason or another couldn't show, and we discussed the usual federal agencies like the Bureau of Land Management and the Bureau of Outdoor Recreation. An agency was suggested to me that I hadn't considered, and that was the U.S. Forest Service. The point was made that the Forest Service is doing land management, often in Coastal Zones,

as a great number of forest properties have their terminus in the border of one edge of a coastal zone. And the point was made, and I thought it was a very well taken point, that we should contact the district forester in Atlanta and see if they might have a representative in our next meeting.

At this point a general unstructured discussion followed, and the following suggestions were offered from the floor for functional participants in the next seminar:

1. The Florida Department of Conservation and Natural Resources
2. The Office of Coastal Zone Management of (NOAA)
3. Navy Department
4. The Coast Guard
5. The Department of Defense
6. The Environmental Protection Agency
7. The Florida Marine Patrol
8. The Federal Highway Administration, Department of Transportation
9. The Federal Power Commission
10. The Bureau of Land Management

(Bradley)

Okay, we were talking about regulation and regulatory process. Most regulations of interest in the coastal zones I would assume would take place in the environmental planning agencies. On the other hand, some regualtions are likely to take place before public utilities commissions; for example, regulations for the placement of pipes and lines and wires.

(Prest)

In terms of power generation, I don't believe there is an environmental regulation on the books today, in the state or the federal governments, that doesn't have some effect on power generation, right on down to the Environmental

Protection Agency, the Corp of Engineers, the Coast Guard (oil spills), or even out West with the Bureau of Land Management and pipeline corridors, and so on. The power generation field, as an example, is an industry which is diverse in it's own right. The power generation field is one of the most, if not the most highly regulated industries, certainly in the United States, and I believe, from my calculations, it's got all the environmental problems. I don't believe that I can name one aspect of the environment that's not impinged upon by electric power generation, from people to politics, to economics, to water pollution, air pollution, solid waste formation and so on; so it is a real problem in itself. I mean it's highly regulated.

At this point it was suggested that the regulatory agencies and related interest agencies be invited to the next seminar. The group also suggested that the following be invited to attend:

1. The Economic Development Administration
2. The Federal Energy Administration
3. The Department of Housing and Urban Development
4. The Department of Commerce

(Bradley)

You know, if you're like me, I do my best thinking between 2:00 and 2:30 in the morning; I wake up with this idea and scribble something down, and in the morning I can hardly read it. If you are somewhat like that, and you think of another agency; or better, if you think of a specific person that you have had contact with that would be interested in coastal zone management and would like to attend our next seminar, put it on a post-card and send it to us; we will be glad to invite someone who would really offer some insight and substance to us.

The second thing that happened during the break, it was a very lucrative break, was we discussed briefly the thing we're going to talk about now, which is internships, jobs, and stuff like that. Somebody brought to mind something that had completely slipped my mind or I hadn't thought of it, and the idea was: cooperative education programs. The idea behind cooperative education programs has been very successful in Industrial Management, Engineering and in some Agricultural fields. The idea is that the student takes a little longer to complete his formal course requirements, but he goes through organized (through his fingertips) work experiences along with his degree. Perhaps he takes two years in the basic sciences, for instance, and then a year in industry, to be followed by a year back on a little bit more advanced level in the basic sciences, and then a year in industry; and in his senior year he is again taking the advanced sciences (Chemistry, Biology, Earth Sciences, whatever), and he goes out, hopefully, to his parent agency, more than likely, with a background that that industry or that agency appreciates, because they have had a hand in his training. They know him. They know he knows what they do, and I am not making a pitch, but maybe all education should be cooperative education. I think that we should explore the possibilities of cooperative education. Maybe you gentlemen know more about that than I do.

(Thompson)

This particular school is one of the pioneers in Florida, in cooperative education. We had two or three other people in Fisheries, and they turned out very well.

(Allen)

I would like to ask you a question. I have got two boys at the University; I am going to send them to this school of yours, and it's going to take him, the way you've got it lined out now, it's going to take about eight years to get

through college, and he's going to go out there and he's going to get a great big job that's going to pay about $9,000 a year, and I am going to tell you to go jump in the lake. I will send him to medical school, where he can go out and get $90,000 a year. I mean, you've got to be real careful, that what happens is not a repeat performance of what seems to have happened in many other resource professions. When I went into Forestry, my field, they told me the world was going to be waiting for this little old boy when he stepped out of that University. It was waiting for me, but I don't know what for, because I had to shuffle to get a job. Four or five years ago, I would have had to pay a Ph.D., anywhere up to about $18,000 a year to get him to come to work. Right now, I can go out and hire a Ph.D. for $15,000, and he's damn glad to get the job.

(Kirkwood)

This brings up a very interesting thing; I think with the advent of the National Environmental Policy Act, that the technical people, such as myself, have really dropped the ball; the reason being that we absolutely cannot communicate with our bosses, with congress, with the legislature or with the general public. As I was telling some of the students over there, I probably lost one of our best friends, who was a nuclear physicist, who had over two hundred technical publications. We were talking to the governor and the legislature in Alaska, and he was asked a question concerning the probability that the nuclear device that they were going to explode would blow Amchetka in two. It was the largest device ever exploded underground, and he got involved in the theory of probability. Well each one of the Senators understood probability as well as he did, but they didn't care about the technical terms, and finally one of them asked me to tell them what he was talking about; so after it was over, he wanted to know what had happened, and I said "well hell, you can't communicate, that's all." And

he couldn't. So, don't forget that in your curriculum; teach your students how to write and talk.

(Bradley)

Certainly my experience has been very much the same. As I mentioned before, I organized teams of people to write environmental impact statements in California for a number of months, and I had Foresters, I had Geologists, I had Sociologists, and I had Economists who could tell me a little bit about their basic discipline, but I had nobody who could synthesize that information into what the National Environmental Policy Act of 1969 asks for. They have five little requirements; you can talk about the impact; you can talk about the irreversible and irretrievable commitments of resources, and the long range, and all that stuff. I wound up doing that sheer frustration, damned hard work, because nobody else could do it. I fully appreciate the necessity for good communications and am more and more getting to the point where I appreciate the necessity for good written communication skills. Every year I write more memos; every year they seem to get longer, and they seem not to be doing the job, and I am convinced that somehow it is within me. I can trim those memos down and they'll do the job, and that kind of insight is valuable for any kind of professional training at any professional level and certainly at this one.

(Kirkwood)

Well, I think that that's where there's a gap. For the highly technical person is unable to do a job; we aren't going to go back; or people I know are not going to go back and learn how to write and read.

(Bradley)

But Mr. Allen's point is well taken too. I don't think we should develop a four year curriculum for a two year degree, but for some people, some students

going through their curriculum, the opportunities may be such that they would have the opportunity to do cooperative a couple of semesters here, a couple of semesters on the job, and a couple of semesters back in school; but I don't have a sense that that is going over, or that you think that would be particularly valuable.

(Cowley)

We have been talking a good deal about communications, and I think this is valuable no matter what you do, but there is one aspect of it that we haven't really touched on that to me is very important and that is in the field of public relations. If you are going to be in public administration, no matter how good a program that you worked on and how good a program you developed to sell to the politicians, if you don't get that across to the public for them to support you, you're a dead duck to start out with. The University here, I know, does have a field or a School in Public Relations, and it is very possible that this could be worked into the curriculum. My personal experience is that if you don't sell the general public, and get the general public behind whatever it is you are doing, Public Administration is just not going to get anywhere.

(Bradley)

From my limited experience, I think a lot of Public Administrators would agree with you these days. It used to be the case where a man went into a bureaucracy and he disappeared. He had what we academicians call tenure, guaranteed job security, and there he was making decisions on the third floor of some building behind a nameless door and was all powerful, but unaccountable.

(Premetz)

He doesn't disappear; he just hit that damned bureaucratic door and knocked himself out.

(Bradley)

Well he hit a number of things including that National Environmental Policy Act that we were talking about recently and including a much more sophisticated, not general public, but organized public-oriented agencies, and including people who work in foundations and small associations like Mr. Cowley does. They are getting very sophisticated people who make demands.

(Jensen)

In regard to your question about "would a cooperative education program fly?" just let me add from what little bit I know about my industry (petroleum) that I would say it would be very difficult to work with industry, because you want to get experience in Coastal Zone Management or work, and industry is going to employ a man for whom that is just one part of his duties. I think that you'd have to rely on governments with their special programs rather than an industry, because when a student goes to work for an oil company, he is going to be like Dick Hickman over here, and the student's going to have a lot of responsibilities other than just coastal zone management. Coastal zone management is just one facet of Dick's operation, and if he wanted someone to get experience in coastal zones they ought to go to work for Dick and not even see the coastal zones for the entire six months.

(Hickman)

I guess this is one thing I'd like to talk about here. It seems to me that fundamental to all of our discussions here, at least for me, is some definition of the job market (or, what are the opportunities--who are these people going to be working for?) and that should occur before you define what you are going to teach them. And, as I listen to the discussion, I feel like most of the opportunities for these degree candidates are probably going to be in the government, federal, state, local, or whatever it may be. So I guess to some

degree, I share Chris's (Jensen) opinion here. I am not too sure that there are too many industrial jobs, Ken (Prest) there may disagree, but what tends to happen in a corporate enterprise is that you get a whole gambit of things you are looking after. As Chris says, coastal zones may be one small area.

(Bradley)

There is a problem here. The degree we are working under is a Masters in Public Administration.

(Prest)

Is that more of a pragmatic thing, because monies have been appropriated for work in coastal zone management; so in order to get these funds, we need to structure a program that has at least the words "coastal zones" involved?

But I would like to make two comments on that; I agree and disagree with both comments; I certainly think there is a need for a cooperative education. I look at that from two perspectives. First of all, what is education for? My interpretation would be that it is to train an individual to function in some intrinsically responsible way in society, in this social system. I mean provide some productive role, productive function, to do something, to apply, or to make a contribution. Alright, we certainly ought to be training people to fill needs within the social system and supportive of the development of the system. At the same time, we recognize that people, historically, coming from the academic community into the business or governmental communities have lacked the experience necessary to function adequately. Leaders realize, and we are beginning to realize more and more, and we talked about it earlier, that there is another dimension that goes beyond theory and raw data appreciation. There is a need for understanding the meaningfulness of what you have learned. Let me give a short example, one in many cases: for a particular environmental assessment report, based on a particular amount of data, you may spend $10,000

to obtain the data by hiring consultants or by doing the work yourself, and if the data are misapplied, or if they are not applied through the right channels, or in the right time frame, that $10,000 has gone down the drain. They are absolutely worthless, the data, the knowledge, the information is zero. But, by the same token, if that $10,000 is placed and applied and the information that is gained from that $10,000, was applied in the right way, through the right channels, at the right time frame, it can have the leverage of $100,000 or $1,000,000 in terms of accomplishing a particular objective. So there is the dimension of experience that historically, the academic community has not had, has not contributed to the student's education; so to me, one of the steps in building that experience would be a cooperative education program. It does two things. It benefits the student because he is able to get first-hand experience; he is able to interact directly with the people that are making the decisions, with the people that have the problems that they see they can't solve, with the people that are challenged by areas that they have no traditional background for; and the student is able to experience first hand the frustrations that are evident. By the same token, when that person is ready to go on the job market, he becomes more valuable to that agency, whether it's industry or government, which hires him. Again, as George said earlier, when he used an arbitrary example to say that it takes ten years of experience in an agency before you become able to function in it; when you stop to think about it, it takes a lot of expense to fund somebody's education for ten years before he's able to function. So, if we can shorten that process, if we can make public funds (because institutions and schools are public agencies) shorten that process and industry shorten that process both cooperating for their own benefit as well as for the benefit of the student, then the student comes into that industry or comes into a functional role in society in a shorter period

of time, with more experience, and he's more valuable, and, therefore, less education has to be spent on him after professional entry. So, I think there is a real need for properly directed cooperative education.

(Allen)

The reservation that I have about it is that I can see where it's of help to the student, and his old man who is paying for his education, so this might be some help in that respect; on the other hand, if a co-op student comes to my office and goes to work with me, as you say to learn my frustrations and to learn my techniques and on and on and on, I can assure you that most co-op students when they go to work for either industry of for a federal or a state agency, that administrators do not associate with students; they do not deal with, nor is time given to explain to these students the reason why the administrator does something; and, even if he did, it may very well be that the administrator couldn't really tell him why he did it; it was just a good gut feeling that he has developed over fifteen years of making mistakes. I think the only thing that's going to be beneficial for the cooperative experience, is it's going to acquaint him with techniques; it's going to acquaint him with mechanical procedures; it's going to acquaint him with the philosophy behind the organization. For instance, the philosophy of the Corp of Engineers has often times been stated as opposed to that of the Department of Interior. It is not! And the deeper you get into it, the more you find that this is not so. And this you may understand, but as to the reasoning behind the thought processes of the administrator, the cooperative student's not going to be exposed to it.

(Prest)

Well, just in learning what you just outlined briefly, I see an expansive amount of experience that an individual could gain in a relatively short period

of time. Just physically being there and not doing anything but observing just what's going on around him, can't help but to impart to him a better appreciation for why $1,000 of data are not solid. Even after that short period of time he would be more valuable to you later, because you would say that he would be coming in with that appreciation and could function better.

(Allen)

You'll find that a lot of the problems are not solved, because the guy that's supposed to do the solving is a "dummy head."

(Jensen)

Let me enter into this discussion and re-emphasize, that I don't think that you will be able to count on industry to participate in that part of your program, because industry is going to be dealing on a one shot basis here and a one shot basis over there. There is not going to be continuing work in the coastal zone area, and you talk about a cooperative program with industry. Take summer jobs as an example: a Geology student coming out of college can get a job with the petroleum industry, and he ends up looking at core samples from drill cuttings from all over the world. Wherever they're drilling, they send them in to the headquarters, and he's in a room by himself analyzing all these rocks. He probably doesn't become associated with anybody other than his immediate supervisor for the entire summer. As a Geologist, he's looked at a lot of rocks, but he hasn't learned much other than just looking at a lot of rocks. But, these are the areas where you can give a person some exposure to the oil industry: the Engineering field, Geology, and this type of thing. However, when you get into a broad field such as coastal zone management, a corporation isn't exposed on a continuing basis to coastal zone problems to the point where it could be a beneficial part of a student's program. In industry, it's hit or miss, or wherever the fire is now (Laughter)

(Hall)

This situation depends entirely on the attitude of the management toward co-op students. If they want the co-op students to do something for them and to learn it properly, they will put them in a position to do this. Most of the time, it doesn't work out that way.

(Jensen)

You can even have a manager or a vice-president, who says "o.k., Mac, this is the program; I want you to be enthused by it." Just like some executives say, "I want you to participate in the Florida Petroleum Council." Right? There is a corporation which even sends a letter signed by the president saying, "I want you to participate in the Florida Petroleum Council because we put a certain number of dollars in that organization." This process falls flat, because the guy down there's got another superior who says "I want you to sell so much gasoline" or "I want you to do this particular task." And that's the guy that he gets his promotion from, not the president, and that's the way he goes.

(Hall)

Well, I have worked with industries in the permitting and licensing processes, and believe me if they had been a little better informed as to the federal laws that were affecting them a great deal, things would have worked out better, at a much more rapid pace, with considerably less expenditure of dollars. And frankly, if I were to hire somebody, I would like to hire somebody who has had experience with industry and in housing, and in social anthropology, and in things like this. I really would. We need a broad based man.

(Jensen)

But, if we have a problem there, we'll dip into the federal employee "till."

(Laughter) We'll hire one of your people away from you to work with us on permits.

(Premetz)

This is a problem: You mentioned you'd like to get these broadly trained and talented people, but you can't get them because under civil service you're going to have to try to get people with specific skills, like a certain number of hours in Biology or things of this sort; and boy, this is stifling as heck. Trying to get, you know, broad talent in the generalist that you can use is almost impossible. (Laughter)

(Bradley)

Let me summarize. It seems to me that we've been saying that cooperative education for a Master of Public Administration in Coastal Zone Management would probably be more appropriate in a public agency. An industrial manager would be dealing with more problem areas at any one time than just coastal zone management and the degree structrue that we have outlined here probably wouldn't be specific to his professional needs at a relatively high level. Given this curriculum for a "generalist" in coastal zone management, what I am trying to address here is the problem of "how you get some students past that first day," and I'm still not convinced that cooperative education could work. I have got a little bit better insight now about where it might work better, but cooperative education is more than just a one-way street; it can be more than just a student going into something; it can be cooperative education the other way too. It occurred to me that if industry couldn't take students, maybe industry could contribute faculty to teach in the MPA program. One of the things I had in mind as a dimension of cooperative education was guest lecturers in the program. If we're going to talk about the political realities of licensing, and the policy process, and the regulatory process--if we are going to talk

about the economic and resource realities of petroleum resources or copper resources, or water resources, then it seems to me that one of the best and fastest ways to get the good information to student's ears would be to make provision for guest lecturers. I mean, for men like we have here today, to come in and tell these students a little bit about what it's like at Exxon Corporation as opposed to the West Florida Regional Planning Council. I'd like to throw this idea out for consideration; is there any comment on that?

(Buttleman)

I'd like to comment just on using practitioners as lecturers and tie that to your earlier discussion bent toward case studies or a case study approach. The two seem to fit right together, and I would suggest that in bringing in guest lecturers it might be very appropriate to combine the two. Bring in a person who has experience in the area of the case you are studying at that time to present the case from his point of view. That way, you not only get the case itself but you get, hopefully, an insight into the biases, the attitudes, or the point of view of that person; and that would probably be more meaningful than someone who is just brought in to talk on a general subject.

(Bradley)

It would be a good place to originate cases too; I can think of no better source of cases than an industrial manager right on the firing line and seeking one of these leases for offshore drilling in the Gulf, or the industrial manager on the firing line when an accident happens or something.

(Matteson)

I have a question, but it is off the subject a little bit. What will be the percentage of students in this program who are full-time students, and what percentage of these people already have a job, and are coming back to, you know, just try to strengthen their present position?

The few people who I know in a Master's Program are people who have graduated, have been working, and had a nice job for the last three years, and they say "Oh boy, I'm going to go back and get a masters degree."

(Bradley)

Okay, let me try to answer you. What we have been trying to do is design a program for the person before he has had significant job experience. I can think of nothing more ludicrous than to bring a person back to the University after five years of practical experience and put him in a three month internship program in a city somewhere, running a statistical analysis that nobody else wants to do. But I think a program could be structured in such a way that it could serve both constituencies. I don't see why we have an either/or situation. The person coming back might take a different course sequence, might-not take an internship (based upon an assessment of his past work experience), and might even have that experience count in the credits that are set aside in his degree program for the internship or a practicum. Especially, if he can demonstrate that he's performed responsible duties or that he's been an initiator of policy or he's in a decision-making capacity or something like that, then certainly an internship would be unnecessary. And probably a whole range of mixes of training are possible between the naive, pure undergraduate coming into the program and the old hand coming back after ten years out on the firing line. The two extremes would have entirely different perceptions and entirely different experiences. By the way, we are getting more and more job experienced people back into higher education; we are getting mid-career fellows. At the University of Arizona, practically one-third of our students are mid-career people coming back. They are an invaluable resource to the educational process. They have specifics; they have examples; they have things they have learned through their fingertips; they have a lot of this gut feeling that they can pass on

that you can hardly get any other way. We don't contrast them to our naive twenty-two year olds coming in, because we have pretty good undergraduate students coming into our graduate programs also.

That's what I would anticipate here, hopefully. Also, we have more women coming into the natural resources fields, and I'm behind that too; there's nothing male about natural resources, although that was never pointed out to me when I was coming into the field.

One other point I am trying to develop in my mind, as I give advice to Dr. Freeman, and the Public Administration faculty is: I am trying to develop an MPA program that is a generalist program, yes, but that should serve the recipient of that education for the next thirty years. I can't guarantee what a graduate of this program will do for thirty years. I can look back thirty years, well at least fifteen years ago, when I was a professional marine. I had no education; I had no desire to go back to school. And I am sure that anybody that has lived beyond the age of twenty-two realized the futility of trying to think ahead to what you'll be. You're not going to be at your first job, or it's very unlikely that you'll be at your first job for thirty years, but that's not to minimize the importance of the first job. To students these days, that first job is important in a depressed economy in hard times; construction is down; taxes are up; you know the drill. But, on the other hand, I would feel very reluctant to try to structure a degree program specifically for that first job so that it prepares him to do that first job over and over again once a year for twenty years. And that's why my program has a generalist bent.

(Allen)

When a young man comes back in mid-career, as you say, he's coming back for a degree. And, he wants to get this degree, and he wants to get back out again,

and he wants to go to work. Are you going to be able to give him any college credit for the practical experience that he's had? If you don't, what you are doing is: you're putting out a boy that's never been out of school, and a man that has already had five, six, seven, or eight years of experience, and you're shooting them both through the same funnel. I feel that the latter guy has gotten experience and that he certainly should be given credit for it.

(Bradley)

I totally agree!

(Premetz)

Well, many Universities and Colleges do.

(Bradley)

Yes, and more and more are doing that through thesis credits, or through independent credits, or an assessment of an individual's past experience. I had the pleasure of serving as the master's degree chairman of a retired army colonel two years ago and the field of expertise in which he was taking his master's degree was Water Resource combined with Administrative Leadership. So there we were, trying to tell Colonel Streeter about leadership. He had been a combat veteran, an Army Colonel, and he had come up through the ranks; so we in fact did give him credit; he did directed readings; he did seminars that interested him, and we wound up giving him degree credits for twenty years of leadership as part of his program. I think that's an excellent way to do higher education, to be that flexible. I think that flexibility comes about through, more or less, a broader general program.

(Freeman)

Yes, now this is one of the problems that educators haven't faced up to these days: are we in the business of educating or certifying? In some cases at the University of West Florida we are adopting sort of a mixed strategy. We do some

certifying here, because we can give up to ten hours of credit by examination, or we can waive a particular requirement. Let's say a student has good competence in the use of computers. We could waive the required course in computer applications and substitute something else for it, giving enrichment in an area in which the student needs enrichment and not try to duplicate training just because of a course requirement. And, we can actually waive the internship that is required in our program on the basis of demonstrated experience. One of the problems, of course, is determining exactly what a candidate's experience is, because there are all types of jobs a person might have had, which might not really be accepted for an internship. Well that's basically where we are at West Florida right now. But, the question that came up a few minutes ago that I would like to hear your reaction to is this whole manpower resource planning business. That is, the human resource needs in coastal zone management. How good have manpower projections been? Those I have seen have not been in depth and with the precision to be very useful to me. What is your experience in this matter? Should we invest some effort in manpower and needs assessment in this area right now and try to project trends for future?

(Prest)

Let me just comment on that. It's interesting that I am not sure whether that will be valuable or not. Let me cite one example: I was talking to John Hall during the break, and he recognized (we recognized together) that there is a need for administrators in the coastal zone management area. In fact, his agency, in his very division, has twenty-one openings; at least they had twenty-one openings, with money to be appropriated for those openings, but what happened was that the funds were cut off. Funds were not released to support those openings. There is a need; we have a Coastal Zone Management Act; we have twenty-one approved openings, but we have no money to fund the openings, and,

therefore, we can't hire people to fill those openings. So even though you recognize that there is a need for trained people, it comes down to economics, as to whether or not they can be funded or will be funded.

(Hall)

Well, when you are speaking of a federal agency, it comes to the Office of Management and Budgeting; that's what it comes down to. (Laughter)

(Martin)

If I may comment, the Geological Survey will be hiring people in the next two years. Most other agencies in the Department of the Interior it seems are cutting back. Of course, most of the people in those agencies which will have to cut back, other agencies will try to absorb. I heard a story yesterday that in the next two years the Geological Survey would hire up to five hundred people for the West Coast, East Coast, and Alaska.

(Bradley)

Yes, but it's very difficult to anticipate which agency will suddenly bloom. Of all candidates for growth, five years ago I didn't think it was the U.S. Geological Survey.

(Martin)

Right now the conservation business is booming.

(Bradley)

Five years ago it would have been the State Department and the Department of Defense, and right now they are not booming nearly as much as other agencies.

(Martin)

The environmental subject is certainly important in all areas, and is much more visible in the papers and on TV especially in California, Alaska, on the East coast and in the Gulf area; so certainly there seem to be openings for this type of individual we are talking about here.

(Kirkwood)

I would like to mention one thing about the job market responding to the gentlemen who says that there is very little chance in production-type companies. Now there are other types of industries, too. For example, I worked for Battelle six months ago, and the people that worked with task leaders, or program leaders would call when working on an environmental statement; we wrote the report which the government agency put their name on and then it became a statement.

(Bradley)

I'd like to support that. Private consulting firms are good potential employers. Of course, in California we joked with one another and we called the California Environmental Quality Act the Environmental Consultants Equal Opportunity Act. (Laughter)

There was no way of projecting the boom in small consulting firms in that one state (California) during the three year period from 1971 to 1974. What is most interesting is to go back and look at the yellow pages of the telephone directory; in 1971, you could look under ecology and they practically misspelled it but in 1973 there was a page and a half in the San Francisco directory and two or three pages in the Los Angeles directory, of consulting firms; private consulting firms working with industry and with agencies, firms working mostly with land developers, and with people doing housing contracts in California. They all had a few things in common. Somehow in their title they cleverly worked in the words "environmental" or "ecology" and "systems." It doesn't matter what the connectives were; somehow they had that language in there. And they all had little rag-tag offices and a staff of seven or eight and a couple of girls to type and they did these environmental impact statements. Seven years ago, there was no indication on the job market horizon that that

would in fact blossom as a way of getting entry jobs, especially for young professionals. Let me conclude once in a professional meeting that the National Environmental Protection Act was actually welfare, welfare for the middle class; it has kept a lot of people off the welfare roles who would be very uncomfortable socially if they were, in fact, one of the engineering or professionals out of jobs. Who could have anticipated that it would have been the National Environmental Protection Act that would come galloping to the rescue in all directions at once. I am also interested, though, in developing the kind of curriculum that may be available to, or of interest to, a person in what I would call association management. I mean, not all public administrators should work for a city, or a county, or a federal agency. More and more, professionals, it seems to me, are working for local associations: for example, associations of counties, associations of regional governments, conglomerate planning agencies, associations of health, safety and welfare, or other general associations. And, I would feel very remiss if we developed a program here specifically directed toward the U.S. federal service register requirements, although I recognize the importance of meeting those requirements in getting your first job. I think there is more to administration than just the federal bureaucracy. I am not trying to talk down the federal bureaucracy, but it seems to me that private associations, foundations, research associations, have become a place where (in this depressed, highly organized economy) a number of our young professionals may hang their hat for a couple of years, to get experience and to feed their families.

(Prest)

Particularly in a time when most organizations want to have as few people on their staffs as possible to keep down the expenses, they are going to have to look for people with diverse backgrounds, who can function in many settings,

who can be flexible, who can work in one particular area even though he may not have the specific background, and who is motivated and has the initiative to build himself. Candidates will need at least the fundamentals, so that they can go out and talk the language and further enhance their own ability. If a candidate is flexible enough, he is not afraid of challenge; he can handle a lot of different areas; he can work with all sorts of people; he can communicate, and because of that an employer can maintain a small staff. An employer can work with a smaller staff if they can maintain people with a lot of diversified backgrounds, a lot of contacts, a lot of information sources, and so on, so that they can handle the many tasks that they have to handle.

(Bradley)

I would also like to remind you that we were talking in very broad terms about the Master of Public Administration degree. Granted, it is oriented a certain way, (to public administration and public bureaucracies), but I am not so concerned about that in the long run. For a number of years, the director of the Ford Foundation was a Medical Doctor. I know of one university president who has a Master of City Planning degree. It seems to me that it is less important exactly what the title on the diploma says, and more important what the person is. I have had limited experience, but I am developing the opinion that our biggest scarcity is talent, particularly, talent to organize ideas, communicate them effectively and operate well within the administrative structure.

(Moxon)

I have a feeling some of our best candidates or beneficiaries of this kind of program would be a trained specialist who wants to become a generalist.

(Bradley)

I gather that you are saying, sort of as a student, that you would like to come back and take this program. My next door neighbor in Tucson is the Vice-

president of a firm that specializes in pipelines, and they go out and hire all kinds of consultants to help them write impact statements and other reports. I think that that's a good point, well taken. A generalist now is becoming practically a "specialism" in itself, in that you serve a number of constituencies. I think that you have to be the kind of generalist that has something to be a generalist about.

(Cowley)

I think there is still a good field too in city and county public administration. I belong to the International City Manager's Association; we get a monthly publication which includes lists of vacancies, and I have never failed to see less than two or three pages of pretty good jobs that are going vacant. Many times the City Managers move from one place to another either because they get a promotion or the council may not be satisfied with them; but I think that there is a real need for professional City Managers, and if they have a Master's degree with the training we have been talking about here today, they would be invaluable.

(Allen)

Most of the population of the United States is around the Coastal Area.

(Bradley)

Well, that's one projection that I think we can look forward to. The trend is to the edge. The people are moving to the coast.

(Cowley)

Not only that, but you've got rivers and bays and lakes, as well as the ocean front. It's hard to get away from the coastal area unless you get out in Arizona.

(Bradley)

Our water is just underground; it's under the surface, but it's there none the less.

Let me see if I can summarize the discussion. We started out talking about cooperative programs. I think we have pretty well concluded that process industries wouldn't be a place to put students in, but they might be a place to take some extremely valuable talent out on a short term basis, as adjunct professors or lecturers.

(Jensen)

When you talk about lecturing, do you mean someone who may come in for a week and go into something in depth?

(Bradley)

My preference would be to get someone in for a quarter or semester. Let him come and let him get back into academia again. But you then run into the case where, you know, good people can't leave their jobs for three months. Good people are invaluable where they are; that is why they are where they are. So I suppose the answer to that would depend upon the individual and what he can give. Most visits would be practically "welfare" from industry to public education, because I am sure that this University and my own University couldn't possibly pay the man a salary competitive with what he makes in private industry.

(Jensen)

A lot of times too you can't cover a subject (say mineral development on the offshore or in a coastal zone) in one lecture; it's a multi-faceted operation, and you'd need at least a week.

(Bradley)

Granted. We'd need bargaining sessions between our University as the recipient and that person, whatever it takes.

(Allen)

I have an arrangement with the University whereby I give a lecture once a week;

and the University has agreed to pay the transportation, the Corps of Engineers has agreed to let me go down there, and nobody seems to be in a great big sweat about it except myself and these sharp kids who start asking me more questions than I can give them answers to. But, it can be arranged; there's no problem; most organizations, including corporations, recognize this as a piece of public relations work. Because if the fellow's intelligent enough to be asked to go down and lecture to a group of students, he's not going to be so stupid as to cut the throat of the guy who's paying his check, and you can be sure that he's going to promote his own organization, even if he doesn't do it deliberately. If nothing else, promotion occurs by association, and I don't think anybody will object to this.

(Jensen)

I think you're right George. Our organization, I believe, and members that make it up, would appreciate the opportunity of having interface with the student to gain some perspective on the men they are going to be dealing with in the future. That's why I wanted to explain the term (lecturer or adjunct professor), because you can't get that interface and have the proper impact in either direction by just having one exposure.

(Thompson)

This one week that you are speaking of could be spread out over a semester or quarter.

(Jensen)

It could be a day, a week, or what have you; but, if you are going to have a top executive give his time, sometimes it's easier for him to give a concentrated block of time rather than make a trip every week, particularly when you are traveling over a great distance.

(Bradley)

There's an historic problem in communication here. Historically, public universities have not been really responsive to private industry as a source of people who come in to give lectures, and that is extremely unfortunate in my opinion. As important as industry is in the country, and as important as it is in the coastal zones of the country, I think industry should have considerably greater opportunities to give lectures, help develop case materials, help counsel students, and in general share with a developmental program in coastal zone management. As a matter of fact, I was delighted when we had some industrial representatives with us here this morning. I think it's extremely unfortunate historically that we in public education have not developed good, communicative relationships with industry, and we'll just have to mend that fence. Moreover there is often a lot of talent in public agencies that goes unappreciated; people aren't asked to lecture, though they have excellent lecturing skills; I think it's just a matter of people knowing that the talent is out there, that the opportunity exists and then somehow getting those two ends of the wire hooked up.

(Martin)

I think the Geological Survey would be very happy to furnish people.

(Bradley)

Not to knock down other federal agencies, but the survey has more high quality scientific types per population of the agency than just about any other federal agency that I know.

(Joking remarks from other agency representatives are omitted)

(Kirkwood)

One of the things I'm sure you've thought of is that when you send these

students out to organizations (such as the Fisheries and Wildlife Services) and they don't have any technical training, that the agency in question be clearly informed in advance. Arrangements should be made as Battelle had with Ohio State; stipulations, or some kind of agreement should be made about what those students would do, and how often they would be checking with their major professor, and with their field supervisor.

(Bradley)

Well I have a hunch it's something that we'll learn by doing. I don't know whether we need guide books set down or rules set out about how to run co-operative lectures or cooperative education programs or internships for graduate students. I think the philosophy of this department is why don't you give it a try. Now that's the first step.

Gentlemen, it is twenty minutes until twelve, and I am certainly open for any other comments. After lunch, we might have a few more minutes to discuss some of the questions that could be specifically addressed at a later conference, and I am particularly interested in questions that you as practitioners would like to see researched and see our efforts directed toward. And, perhaps in summary our rough ideas about this MPA program after lunch.

And, we would like any further reactions you might have to this MPA program in Coastal Zone Management after lunch.

Luncheon Break

Luncheon at Scenic Hills Country Club
Pensacola, Florida

(Bradley)

The public administration staff is compiling a bibliography on works or materials related to coastal zone management. That will be ready shortly and will be

mailed to all participants. It will be mailed with the understanding that it's an opportunity for further feedback; you can comment; you can add; you can delete; you can make whatever feedback you feel appropriate. Send it back to us or keep it for your own files, whatever you'd like to do.

Let me see if I can summarize this morning. We are developing here a Masters of Public Administration program in Coastal Zone Management. It is one which I think is unique in that we are trying to solicit through you input from industry, government agencies and other constituencies what this curriculum should contain and how it should be oriented. I'll pass out to you a list of proposed seminars. I'll also pass out to you the MPA degree planning sheet here at the University. You can see for yourself the courses that are offered, the courses that are required, and the courses a student may choose as electives or a field of concentration when the coastal zone management curriculum is developed.

I am also passing out Guidelines for the Internship.

These handouts will give you a better feel of what the MPA degree program is like at the University of West Florida.

Now, this morning we were talking about the degree program in coastal zone management. There has been a lot of discussion so far on the kinds of courses we should offer, on the possibilities of cooperative programs, on-the-job training, and internships in jobs, all topics which I am sure we haven't covered in their entirety.

Now a general summary would go like this. It seems there is a need for coastal zone management programs, and this MPA looks like a flexible academic vehicle to meet that need. It seems there is a need for a realistically-oriented program, one at least appreciative of the problems that current and future coastal zone administrators will face. It seems that there is a need for a

generalist background for these people, not a narrow person trained in a specialty. It seems that there is a need for more concentration (either formal or informal) on the critical problems in communication and critical insights into the political realities of the decision-making process.

There also is a need for jobs, and we discussed this tangentially this morning. We talked about students going into either public agencies or industrial organizations; we talked about practitioners from agencies and organizations coming back to the University either as a student or as a resource person, as a lecturer, or as an adjunct professor--we hope more practitioners will be so involved in the future than has been the case in the past.

Are there any questions now about these things we've covered? Have I left anything out?

(Allen)

Have you polled the field to determine the actual personal needs?

(Bradley)

No, I have not.

(Allen)

Have you established a demand?

(Bradley)

No.

(Allen)

That's an embarassing question: I shouldn't have asked.

(Bradley)

Well no, it's not; it's a legitimate question; I didn't, because I am not the generator of the demand. I'm not the guy commanding these people, and I probably won't be. I think it's not really so fly by night as it seems on the surface.

(Allen)

We may be on different slants.

(Bradley)

Say some more please.

(Allen)

What I'm saying is have you contacted for instance the Geological Survey or the Department of Interior and said, "within the period of the next ten years how many of our graduates will you need?"

(Bradley)

Not yet, although that will be done, and I think the way has been facilitated here this winter. Contacting the U.S. Geological Survey is not likely to be too fruitful. You know, you can call up and get a secretary and say I want to talk about jobs for coastal zone management people, and you get about that far. Or you might call Mr. Martin and say "you were a participant in our seminar; maybe you could help me with these jobs that you were telling us about; maybe you can help me contact the right person." Through this process we can find out where these jobs are. That, I think, is the effective way to find job opportunities.

(Premetz)

I think there is a real danger in any program that you develop, and in any perception that you might have of the job market of being too narrow. For example, as I look at coastal zone management, as a concept, it's no different from many concepts that have been advanced in the past. We've been in the planning field for years; they called it something else previously. Coastal zone management is the thing that seems to be in the foreground at the present time; it's merely because we've got an Act, the Coastal Zone Management Act, which has set up an agency with funds to fund a planning study. Basically,

that planning study (perhaps) will go on for the next couple of years. After that, what I would rather call Resource Planning and Management as a function will continue. I would rather call it that than coastal zone management. Now when you address needs, looking at the federal agencies, you're looking in the long run to that resource planning and management function. When you address needs in the short run, you are perhaps looking at the planners at the state level who now have the job of trying to put together Coastal Zone Management plans. And, these are the positions where in the short term your people might go but if you're building a curriculum that's going to have some permanency, and that's going to have some relevancy over the long term, you've got to address more than the planning function within coastal zone management. Furthermore, you've got to be sure that people don't perceive what you're doing as simply designed to meet the immediate need to fill in or flesh out that planning function, but rather that you are looking to the future and looking toward a continuing need for broadly-trained people of this type. For example, we can see these types of people right within our own organization, not necessarily even tied to coastal zone management; they have the public administration focus, and they also know a little bit about the business world; they know a little bit about the resource world, and things of that sort. They are broad generalists that can function very, very effectively in review functions such as in our environmental assessment division or other things of this sort. They can draw on the expertise in Biology and other fields which they have available to them. But where we're lacking is in the broad types of people that can assimilate all the relevent subject matter and can make some judgments that can lay things out in solid fashion for decision-makers; that's what you're looking for. I'm not saying change the name of your program or anything like that, but I think it's important that the character of the program you're

advancing here is thoroughly understood.

(Hall)

This disucssion gives the impression that all we are talking about is someway to speed along and facilitate the coastal zone management process at a particular stage, and this is one of the difficulties I had preparing myself to respond to your needs question, because we have a responsibility under the law itself. The Office of Coastal Zone Management is in the same department I'm in. I'm in coastal zone management right now, de facto, even though it's not under the law. So it gets a little bit complicated there.

(Bradley)

There are a number of ways, I think, to address that problem; we sort of tangentially did it this way. First, the degree is a Masters of Public Administration, which is certainly broad based. What is general about the Master of Public Administration? The core of the administrative process (as I explained to you this morning) is there, just like the requirement for all MPA candidates. I mean, the student takes the administrative process courses, the decision-making courses, the impact analysis courses, but the MPA candidate may choose to take a specialty in coastal zone management. He could opt for a specialization in City Management, and some do under this degree. He could opt for a specialty in hospital and health management; some do under this degree. In times past, students have opted for specialties in natural resources management under this degree; I did that myself once. That was in vogue the year that I went to graduate school. I mean that's what they called it in those days. We didn't have the National Environmental Protection Act; we didn't have the Coastal Zone Management Act. We didn't have these specific legislative entanglements telling us what we were going to do. The reason I'm practically inflexible about not making this a specific technical course of study and

keeping it a generalist curriculum; but I do not want to produce students that are not readily absorbed by the job market. However, I'm still not talking straight to Mr. Allen's problem, and frankly I'm not sure I know how to assess the job market for coastal zone management.

(Hickman)

Is that a subject you want to address in your subsequent seminar?

(Bradley)

Let me ask, would that be something to address in the big seminar? Would that be the kind of thing we could ask people to give a little more organized presentation on? Maybe a guy who knows something about manpower assessment or someone we can identify who might have a handle on the subject can come and talk specifically about manpower needs.

(Hickman)

Well, I think this kind of gets down to the core of the problem I was asking a while ago. Trying to define the need for these people is the same question put a different way. Do we have any kind of assessment? I'm having a little hard time trying to get a handle on what we need here until I know who is looking for these kind of people. With some answers, then I think we can shape the program a little better.

(Allen)

I presume that the other federal agencies have got the same situation that I have in my own particular office and pertaining to public administration of the coastal zone. I am thinking of the young men that are already working in my office that have degrees in sanitary engineering, recreational development, planning, etc., etc., etc; and I am thinking about how many years it's going to be before they retire or move out of the top of the system and make room for these graduates that you are putting on the market or anticipate putting on th

market; and I am thinking that your first graduates are going to run into a problem when they get out into the field. I refer to the age old problem of experience versus formal education. I think many of your graduates are going to be very frustrated in the mental positions that they are going to be forced to handle because a man with a Civil Engineering degree has been doing this very work for seven years, and here comes a young man with a degree in coastal zone management, and he looks at a Civil Engineer doing this work, and I can assure you that the engineer isn't going to move over. I just think it'll be a number of years before the full demand is going to be realized.

(Jensen)

What you're saying George is it's a long range demand thing that you're looking at, not a short range one, because by the time you produce your first student, short-range demands are going to be filled.

(Allen)

That's right. And another thing about trying to get a manpower assessment or a job assessment that we agreed upon this morning is: most of our work is going to come through public agencies. Now, the tremendous boom in private consultant firms is a passing fad. You look at that same page in the yellow pages seven years from now and you will find that it has diminished considerably. So, who knows what the Office of Management and Budget is going to be like six years from now? Who knows what the budget is going to be like six years from now? And keeping this in mind, who's going to predict anything? Our work load is growing, and our people are getting fewer.

(Prest)

Doesn't that apply to any specialty that you go into? Strike the work specialty; I mean in any educational discipline that you go into, you are going to be faced with the possibility that the demand for your job is not going to be there

when you graduate. But the general emphasis in this curriculum, in exposing students to a generalist education, will make them more flexible to fill roles that will have different specialties, so they'll be able, with a little motivation on their own part, or maybe with an added course or two, be able to readjust themselves. The fact that they are more diverse in their training, should mean that they will be able to fill a need, or fill a role, that perhaps is not there now.

(Bradley)

I think this is interesting, because in fact the short range demands for students will probably exist among people like us sitting here at the table. I mean it is more your perception of what these students will bring to your office door the morning after they graduate; it's more your perception than anything else which will determine the likelihood of their being hired. I mean, what makes you hire a Civil Engineer to handle coastal zone management problems? It's not because his background is purposely or specifically directed toward the coastal zone, but because of something else. What would make you hire a coastal zone manager, or a person with an MPA degree, to do that kind of work, might be a sense that his experience is more appropriate to the kind of work you'll be facing, and I think that's why we're here.

(Premetz)

Primarily, you're comfortable with somebody that has come up through the same discipline that you had. There is that too, it's a fact of life.

(Bradley)

But then, we can't all be Civil Engineers. Unfortunately, we can't all be lawyers either, and most agencies are headed by lawyers. I'm torn on the question that has been raised; it's really a quandry. Specifically, next June where are we going to find openings for the graduates out of the program. And, I

don't know

(Cowley)

When this degree is granted, will it be a master's degree in Political Science in coastal management planning? Or will it just be a simple degree in Political Science?

(Bradley)

I think the degree conferred will say Master of Public Administration.

(Cowley)

Alright, now. That's better.

(Bradley)

The degree may be what you tell to the employer and he says "degree?" "What do you do?" You're a Sanitary Engineer, but what do you do? You're a civil engineer, but what do you do? Do you design bridges? Or streets? Or what?

(Cowley)

Right; but wouldn't that qualify a graduate to get into not only the coastal zone management field, but also in any other fields related to public administration of all kinds? He wouldn't necessarily be obligated to work for the federal government, the state government or anything else; he could go to work for some private sector organizations. Many counties are going into a county manager system and have been chartered like cities; there is a big field there. To me, the person who gets this degree with the training that we've talked about here this morning, with the experience that I've seen people get in working with these types of jobs, he could just fit himself into many many openings.

(Bradley)

Well, that's comforting, but of course, we are back to the problem again of the frustrated graduate. The way that I have approached this in the past is: I don't promise graduates that they are going to be complacent specialists when

they finish a program like this; I don't think it's truthful to say so. I've been frustrated in my life, and it's terrible when you're going through it, but you learn a lot. As a matter of fact a good illustration is the very thing that I was mentioning this morning about consulting firms: most people staffing those consulting firms are frustrated Physicists, or Engineers, or some other frustrated type. They can't get a job in industry today, and local government has budgetary constrictions; therefore, they wind up writing environmental impact statements. Now although this will hopefully be one short time in their life, of perhaps two or three years, their experience is one of frustrations. It can also be one of broadening. My own experience has been that I learned a lot from being frustrated and having to listen to a businessman talk because he was my boss or because I was doing a contrast with him, and I'm not afraid to say students, "yes you're going to be frustrated, and the jobs are probably going to be boring, and tough to get."

(Cowley)

I think any student going out to work today is going to have a hard time avoiding something that he isn't going to be frustrated with. Take the example of the medical profession and the problems of malpractice today. We've always thought that in the medical profession, once you got out you had it made; well I know some doctors that are retiring from active practice and going into other fields. I don't think you can tell a student that because he's got a master's degree in a particular field that he's going to have a job made; it's going to depend on the individual and what he does with his degree. Quite certainly, he's going to be frustrated; who isn't?

(Bradley)

Well I think that's right and let me mention another example of the current reality basis of education. Oftentimes in the past we have given the

impression about education that "boy, just finish this engineering curriculum and you'll have it made; you'll be a specialist and make all this money the rest of your life." All you Aerospace Engineers. . . (Laughter). There we are with a bunch of Aerospace Engineers; they in fact turned out to be pretty damn good sanitary engineers, when through frustration they have to do that to feed their families.

(Allen)

With all the stuff they had been puddling around in, they ought to become experts in Sanitary Engineering. (Laughter) To ask a very embarrassing question to every public agency that's here: do any of us have a job that you can possibly think of within your own personal sphere of operations, the qualifications for which may be filled by an MPA graduate?

(Several Panelists)

No

(Allen)

Do YOU?

(Hall)

I think I might with a little redirection in some of the curriculum.

(Premetz)

He's asking a question of whether you could actually hire somebody right now?

(Hall)

Oh, could I hire somebody right now?

(Allen)

If a young man walked in and said I'm a Biologist, or I am a Marine Biologist, or I am some other scientific field, or I am an MPA: do you have any job with the formal qualifications, classification or description that would fit the MPA? Could you hire the man? The point that I'm trying to make is: you're

going to have to do some re-orientation, or somebody is going to have to do some re-orientation in that big, old, cold, cruel world out there, or you won't have a job available because there is no position description written for the man; see what I mean?

(Bradley)

Well, I've helped cities and counties write personnel "specs" before. Usually when the job "specs" require a master's degree, the description sounds like this: you should have a Master's degree (either a master of arts, master of science, master of engineering, master of business administration, or a master of public administration, in one of the following disciplines: Accounting, Economics, Mathematics, or some other relevant field). I am biased about an MPA degree because I have one. It hasn't prevented me from feeding my family for fifteen years, but I recognize the resistance on the part of a lot of people to the idea of an MPA degree. The MPA is kind of a nebulous, in between, professional thing that is really not a master of science, not a master's of arts, not a master of laws, and it's really not a what have you. I see no way around that except through a little contribution to the education of people likely to hire an MPA. I have a hunch that, if you sitting around this table had an opportunity to help develop a curriculum, you would probably be more receptive to a graduate of an MPA program.

(Premetz)

Well really to follow upon what Goerge is saying, once you get a curriculum, once you get people coming out of the system, then we had better redesign specific positions within the federal sphere, and perhaps even at the state level, to utilize these people. We may surely recognize that if we can have a guy with all of these talents, and we do recognize that, that it would be extremely helpful for certain jobs that we have to do, but right now the

qualifications for authorized positions call for a Marine Biologist or something else like that.

(General Response from all Participants)

Yes.

(Allen)

I can't hire a kid; I don't care how good he is.

(Prest)

I'm going to raise a question and just throw it out on the table. The question is: How many people in your organization are executing the responsibilities that were set out in their job descriptions. (Laughter) The point being: in many cases the individual is doing far beyond what is actually set out in his job description, or maybe even something quite remote from what is actually set out in his job description. There are a lot of reasons for this; it's not important what the reason is really; the job description gets the man into the organization, and if what he does meets the needs of the organization as it changes to meet the stresses of its environmental politics or what have you, then well and good. The organization shifts that man around, and he does different things. So, throw these remarks out for comment.

(Allen)

Be that as it may, we still have to get the job description written so that we can get him there to start with.

(Premetz)

"Specs" have to be written along the lines of the requirements of the job as set forth by Civil Service Commission.

(Buttleman)

This whole discussion is kind of illustrative of the fact that this group right here is highly biased toward the federal government, apparently because many

state representatives were not able to make it. But in response to the question: "Could any of the people whose training fit the description of what we're talking about here?" In Virginia we could hire one or more today, if we didn't have a hiring freeze on, (Laughter) but it's not the job description that's the problem, it's that we don't have any money; but, that's a little bit facetious; we could hire them on contract; we can do it a lot of different ways; and I think that this is the point: that the job description is just to get the person in, and then the real assignments are made. That's really valid, at least from my state's point of view. I can't really speak for any other state, but I think a major point is that the Coastal Zone Management Act (which is the cause of all the words and the phrases we're throwing around here) is basically designed to set up state programs; so it's the state governments that are going to be doing a lot of this. All of the federal agencies are still mission-oriented toward their own missions; they are not going to be totally redirected toward coastal zone management, but states that are successful in developing some program are going to have a special little section of state government that is dealing with coastal zone management depending on how they design the program. We could hire people: generalists with a Master of Planning, Master of Public Administration or even with a bachelors degree, but we still have a hiring freeze. (Laughter)

(Allen)

Most of your employment on this particular problem is going to be at the state level, because the damn Act says it should be.

(Bradley)

Actually, there's nothing easier to change than a job description. The real crux in hiring is the interaction between the prospective interviewee and the guy who's going to hire him. How can you train people to go in and take a

personal interview and get a good evaluation for the job? That's just not possible; you train people for other things, hopefully skills that are important out there in the real world. You know they're going to be frustrated, and they're going to have to knock on doors and have several experiences before they find a home; but looking back now, I wouldn't want to keep that experience from other young people.

(Freeman)

I think we may be oriented to the particular people who happened to come to the session today. Many people who were invited, and who are particularly involved in coastal zone management functions at the state level (for example, all the North Carolina People, South Carolina People) were committed or involved in substantial meetings or programs of their own which were being held simultaneously with this one. For example, all the North Carolina and South Carolina people were tied up in other meetings. We had twenty-five or thirty people who responded to the invitation to come and said they could not come; many people were blocked by budgetary constraints. In every case they said in the letter "please send us a transcript of your meeting; please send us a bibliography; please keep us up to date with what you're doing." The fact of life is, as best we can tell, there's only one program "in the same ball park" as this program in the country, and that one is the Master of Marine Affairs at the University of Rhode Island.

What we found when starting to design this program and requesting some of the grants that have helped to get it started was a clear need. We had several agency heads write us to say that we don't have the generalist who can look at the whole problem; what we have right now are narrowly trained persons trying to do generalist things and having a very difficult time doing them. Unfortunately, at the same time we launched this program we've come

into an unusual time in our economy. It will be interesting, of course, to see where we come out on the economy. I would add one other comment too: when you read lists of advertised jobs in the public sector, in those long lists, two-thirds or three fourths of the listings say "MPA, MBA, or Masters in Civil Engineering plus three years of experience." Well, a couple of years ago it said two years of experience; occasionally, you now see four years of experience; and you are talking about jobs that require a salary of $15,000-25,000 a year. Obviously, you enter the job market these days in a position with a Master's degree with a likely salary somewhere about nine, ten, or eleven thousand dollars, depending on how lucky you are, and then you earn your experience credits, and you do some "job hopping" around the country to find a niche where you really can be in a more responsbile position, but all of us do that, and I think we're really talking about an economic situation all over the country which is affecting the number of new entry positions available. I have one hundred and fifty to two hundred people who ask me for an appointment in my department each year. I have no new line items--it's a difficult time for highly trained people and will be until the economy opens up again. We're all stuck with budgetary constraints unless we're in energy rich states, and even they have some budgetary constraints.

(Bradley)

Well, I think that several points have been made and are well taken. I think that we all understand that public bureaucracies are growing; they are the growth part of the economy, and it's not because people just love to make bureaucracies; the fact is that public functions are becoming more important. We're understanding that we're collectively responsible for more things, like our wastes and the management of our lands, and the preservation of the wild things that we have to protect and let live out there some way. But we're also responsive to organized industrial production and the need to somehow get those meshed together in a

way that let's all of us live together.

(Freeman)

To follow up what I said before, I think the final point is that we do not have a systematic assessment of manpower needs. That's the problem right there, and I want to be hard nosed about it. Too many manpower studies that I have seen aren't systematic enough, and based on hard enough data, and detailed enough to really inform me. Maybe those kinds of studies are really not possible.

(Bradley)

The federal government does publish through a bureau of the Department of Labor a little thing called job descriptions which projects in the future the demand for various occupations, like nursing and medicine. It's real interesting to go back to 1968 to read the entry on Physics and basic science; we still had the Apollo man race rhetoric you know; Physics and basic applied physical sciences were just going to be an area of fantastic growth in the future, because we were going to visit Mars and beyond. Now that has been changed, and considerably reduced, and the "in" fields these days are other critical areas: health care and natural resources programs, and this is in fact a natural resources program. I don't think the coastal zone problems will evaporate, whether we hand them to a Civil Engineer to do, or whether we hand them to a person with an MPA degree to do. Truly, I think the people with an MPA out of this University might spend a couple of years with an independent engineering firm writing impact statements or might have to take a job as an assistant city manager somewhere because that's the job open that year--not because they will be doing what is really their fundamental interest, coastal zone management, but if we are all moving to the coastal zones or the deserts, and we all seem to be doing that, I can't accept the argument that problems will diminish, and I can't accept the argument that any less-trained people will be able to do the job. We know from experience that

good people are scarce; it doesn't matter what their degree is. Our scarcity is talent, finding it and using it, and it always will be. Any further enlightenment or comments on that? That's really a sore subject, and one that I always have to respond to, and I never do a good job, because I don't know about a job tomorrow.

(Hall)

If you had asked me the same question in October, I could have responded about a terrific looking job market with our organization; if you had asked me during the first week of November, I would have answered the same way I answered today. It's not possible to tell him how things will be tomorrow.

(Bradley)

Well, it's not possible to tell when the decline will break or when we're going to be on the upward curve, or whatever the hell the Economists try to tell us about it; and the economy improves things are just tough.

(Martin)

Well, unless a freeze or something is put on as far as the federal end of it, the energy related industries look good.

(Bradley)

Right; and as a matter of fact the Coastal Zone Management Act did pass; funds were allocated I think two years ago for the first time, not as much as was authorized to be appropriated, but some funds. Jobs are going to exist in some states, and if budgetary politics is a matter of "getting the camel's nose under the tent and build in the future," then I think there's probably a strong argument to be made for coastal zone management at the state level to continue to grow. Once I have said that, I still don't know where to send a guy for a job.

(Hall)

When do you anticipate having your first graduates out on the streets?

(Freeman)

By September of 1976.

(Bradley)

On the streets, no; in the jobs, yes. (Laughter)

(Panelist not Identified)

That's the spirit!

(Hall)

Could you tell me a little bit about this internship business? Is this where the student goes out in the field at his own expense for gaining experience.

(Freeman)

At West Florida we ask that a basic stipend be paid the intern. First of all, the intern should be a full-time employee, under the direction of the agency. We do ask some things of the person directing the intern in the field; that he first of all outline the particular program of work that the student will be involved in and communicate that to us; that he correspond from time to time with our director; we, of course, insist that it be meaningful work, be full-time work and not be a cheap labor situation; and we ask for basic stipend to be paid. If the job is in the local area, we usually ask for about $250 a month, which is obviously survival money. If the intern is placed in a large urban area, we would ask for up to $500 a month. We have had, I think, two interns out of fifty who were not paid a stipend at all. The answer to Mr. Hall's question, in short is: usually some stipend is paid.

Internships have ranged from working as a staff member for a legislator to minority affairs officer for a state, and placements have been made from one end of the country to the other, in all sorts of positions. The one biggest liability I guess we face lately is that many agencies say "hot-dog we got another intern here; and there are about three or four big projects that we've

been trying to get done; and we haven't been able to get them done, and what's more, I see in your transcript that you know a little bit about research and you know a little bit about this, that and the other; you're just the person we need." The agency head sticks the intern at one desk and leaves him to do these things. But, in general we have had pretty good success with internships. The best internship director in the field is a man who also had a good internship himself; he understands it, and he is committed to giving his intern as good an experience as he had in his training.

(Prest)

I have a question. Why do the internships have to be limited to governmental agencies, public agencies or quasi-public agencies? Why can't you get just the same quality of training in the private sector in a corporation which must deal regularly with public agencies? It's one perspective to see policy from the public agency out; it's another perspective to see policy from the outside into the public agency, and it would seem like the experience would be just as good, if not more legitimate, to be in a private industry that allows the intern to interact with the public agency in his area of interest.

(Bradley)

In answer to your question, there is no reason, theoretically, why we couldn't have internship programs in a power company, other energy company, or in a firm of consultants, or some other private organization with operations and interests in the coastal zone. The reason we don't is probably a matter of economics. . . . Well, why don't we have two or three in Gulf Power. Personally, no one has approached me.

(Bradley)

Consider yourself approached. (Laughter)

(Allen)

How many of your interns have stayed with the organizations or companies in which they served their internship?

(Prest)

I know of at least two people in my company, not in my department, that worked as co-op students with us and have stayed on as employees after that co-op experience because the company liked the contribution they were able to make. You know, it's really interesting in terms of my experience in the utility business: when you hire somebody we have about a six month probationary period (and I guess a lot of agencies have this) and yet that's really not a probationary period, because once you hire somebody, it's difficult to let them go or fire them, unless they are really incompetent. However, with a co-op, you've got a real unique opportunity because you've got this guy working, and if he's really not doing a good job, you can let him go, and if he's doing a good job, and if he's meeting your needs and filling a void, then you can hire him. He's actually had a probationary period. By the same token, you've got some good quality work (in most cases that I've had experience with) from a man while paying him very little. When you get back down to the economics of the situation, there are great savings.

(Allen)

How about your University of West Florida interns?

(Freeman)

I'd say that roughly one-fourth to one-third have continued on with positions in the agency they worked interning in.

(Allen)

This to me would indicate, to a certain degree, the desirability of the product. If a student goes there and works as an intern and he is retained, it would indicate to me that the agency is very satisfied with his performance.

(Freeman)

Well, I think one of our problems is the tendency to place interns in our region, which can't absorb all the interns as continuing employees. Actually, there is a good deal of federal funding for internships and the federal government encourages them at the state and local levels. For many agencies it's a shopping venture; they'll bring in three or four interns, knowing there will be one line item at the end of that pipeline. A lot of our candidates are married and have families. When a professor says "you should go off to Oklahoma or California for your internship" the student says "you said $250 a month didn't you?" They they say papa's tired of paying the bill's, and they are running out of money, so they are more likely to try to get a local internship.

(Bradley)

I'd be against using the retention of an intern as a measure of success. I went through an MPA program, did internship work for the State of New Mexico, and reorganized the personnel specifications for the professional urban and regional planners in a summer and a week. I worked pretty much on my own, and did what we all considered was a pretty satisfactory job, but then went on to take a better opportunity I had to go to grad school. It's not necessarily true that the only good intern is a retained intern; it's more a learning experience on both the bosses' part and the intern's part, and I think that's what it should be. It is not necessarily a bad mark against your record if some internship experiences don't work out very well. You have to learn negative things as well as positive things. You become a positive person after you have experienced some negative things for a while.

OK, I don't want to turn off the discussion of possible internship and job opportunities, but I do want to cover some other things before the end of the session, notably, what you would like to have covered at the next meeting.

One of the rules of the game is that you are our core and will be invited to our next meeting. The next meeting will be a little more organized, a little longer, maybe two days, and we'll probably have presentations. Let me say a few words about meetings. You know if they're too long they're a drag. If the presentations are good and directed right to the problem under discussion, they tend to be very valuable for everybody: you share ideas, learn things, you get to know people, and you get to see some new faces.

What I have in mind for the next meeting is to bring together a mix of people--perhaps we will solicit from you the names of volunteers that you would like to hear make presentations, and perhaps we will have an organized presentation from the students so you and the rest of the participants can see who the students are and what they are doing, and finally, we will probably have some outside people come in and make presentations.

Let me say a word about presentations. They can range anywhere from a formal paper prepared for podium reading, to a slide presentation with a commentary, to more of a situation like this one where you tend to read notes and speak about your experiences; in other words, a little less formal. I enjoy the second kind better, but I wouldn't want to restrict us entirely to that; I would want to make the podium available for people who prefer doing it that way. The presentations should directly relate to your needs, at least as much as possible. That is, when we send out the invitation letters to people to come to the second seminar, those people will be invited to give presentations directed toward coastal zone management: the kind of research that needs to be done there, the kind of problems that exist there, and perhaps one or two presentations on how this MPA program at West Florida might help solve the problems of coastal zones.

I think we should talk about questions to be answered by the later

conference. What kind of questions would you like the presentations to be directed towards? Now, manpower assessment was one offered. Any others? How about research as practitioners? Do you have ideas about the kind of research that could or should go into the field of coastal zone management?

(Martin)

You mean research into archived data?

(Bradley)

Well, research can range far from all of that empirical analysis. I think we're all sort of starting from point zero with coastal zone management. Nobody knows what coastal zone management is, and some of the money that's going to come for coastal zone management will be directed toward research, somewhere, either in universities, or in contracting agencies, or in consulting firms (that write contracts and get grants to do research for these agencies). I can think of no better place to find out what kind of research might be needed by coastal zone management than at our next conference.

(Prest)

How about modifying that a little bit and saying something like, we're going to try to strike a balance between pure and applied research in coastal zone management.

(Bradley)

How about the topic or question of bridging the gap between planning and implementation?

(Unidentified panelist)

That's a small one (Laughter); we could take care of that in fifteen minutes.

(Hickman)

I'd like to talk about considering the thing that's being wrestled with right now; that is, how do we define the coastal zone? That's a problem that all the

states are wrestling with now. Where do you legally define the set back line? What does the issue involve?

(Martin)

Texas and Louisiana have set their's tentatively; I'm not sure if they're sticking with it though.

(Kirkwood)

Oh yes, that's taking up the subject of political boundaries.

(Premetz)

Another would be legislation relating to the coastal zones; you know, it's not only the Coastal Zone Management Act; we've got dozens of other Acts that relate to the area in some manner.

(Bradley)

OK, let's discuss legislative coordination. Just talking about defining the coastal zones: California has theirs defined in different ways in different areas of the state; a thousand yards inland, or the nearest and highest peak of ground, depending on where you are. I think that's really a fundamentally important question: how do you define a coastal zone?

Let's consider the legislative coordination now.

(Prest)

Coordinating legislation among state and federal agencies responsible for the coastal zone: I want to get the state and federal agencies in here.

(Hickman)

Well, I'm not sure you ought to limit it just to state governments. I think there are other agencies and levels of government involved.

(Prest)

Yes, what I mean are various levels of regulatory bodies and agencies.

(Martin)

We have a way of doing that now; of course, its good to explore. My experience

has been with the Assistant Secretary of the Interior, or Special Assistant to the Secretary of Interior in Albuquerque who coordinates all this information with the state agencies through the various units of the Department of Interior. That's worked very well so far, because as I mentioned earlier today, Texas is further along than any of the other Gulf Coast states on this. So far we've had no problems there. There were some problems of coordination with bringing summer programs in, but maybe that's been ironed out.

(Kirkwood)

One of the most frustrating ones is the relationship with economic and environmental values. You know what I mean? That would take a panel though. We have made some kinds of judgments relating to economic and environmental values when taking up every impact statement; each time we do it, I am more satisfied.

(Bradley)

The relationship between economic and ecological values is a topic then.

(Prest)

OK, we should take up economic and natural resource allocations in use. Economics comes in based on allocations and use of natural resources. That's the basis of economics isn't it?

(Bradley)

You see, you're avoiding the emotion-filled words and the controversies over the emotion-filled words. I think it's better to say "economics and ecology," because that's how people identify the issue.

(Prest)

But, that's really not the issue. That didn't solve the problem. The problem is still there; the thing is to recognize what is the basis of the economy.

(Kirkwood)

I'm saying what is the basis of the environment?

(Prest)

Or what is the environment?

(Kirkwood)

It's not economics?

(Premetz)

Forget both of them. It's what turns you on. . . it's social and political.

(Kirkwood)

You're right, because every time you've got an acre of marsh-land that is not worth much you want to put a pipeline across there, and there's plenty of marsh-land, but if it's the last acre, it might be worth a great deal.

(Bradley)

Alright, let's take these then: economic and ecologic values. I think you're right: ecologists and economists find themselves as specialists in the allocation of scarce resources. You ask an economist "what do you do," and he says "the allocation of scarce resources is what Economics is all about." Then, what is a scarce resource, in money terms? It's something that you pay a price for, and so on.

Whereas, an ecologist, or your general run of the mill environmentalist, would take the entirely different view and say tne scarce resources aren't in the market place at all, and especially not what is left of the coastal zone. It's the scenic beauty; it's the beauty of the sunset out there; it's having fish when you need it; it's a beach free of oil; it's all these other issues.

(Kirkwood)

All my life, I've heard that you can't add apples and oranges, but we're doing it. You can't compare it, but we're doing it everyday.

(Premetz)

And coming up with peaches. (Laughter)

(Martin)

May I ask one other question? This goes back to manpower for a minute, and I'm just throwing it out to see what the other federal and state representatives think. Would it be worthwhile to consult the Civil Service to get their opinion on the rating of this type of degree?

(Moxon)

You mean on position standards and that?

(Premetz)

Well, there's no problem at the entrance, because there are enough general registers that people can get on. But when it comes to trying to get people into higher grades, or into specialized jobs, you have difficulties, because we don't have standards developed at the present time. But that's hardly a matter worth developing; I mean, it can be done. If the demand was there it would be recognized, but they are not going to develop it for a handful of people . They have to really see a critical need, or large numbers of people, before they go ahead and develop those standards.

(Freeman)

Maybe there's somebody in the country that's already studying this subject. Tell him to come and share this with us.

(Prest)

Can I try another one? How about something on the effect of the evolution of environmental regulations? Historically, our regulations have been based on piecemeal or acute problem-solving, and what we really need now is a different system where we meet specific needs but we also keep in mind long-term productivity or long-term planning and so on. So the regulations need to be dynamic; they need to be used in a dynamic process and revised according to the changing ethics, attitudes, mores, and so on of the people.

(Bradley)

It's a little awkward to talk about research needs for coastal zone management. There will be money for pure and applied research. I have a hunch, in times past that we haven't articulated the applied research we need, and so, you know as well as I do that, in your offices every morning there are volumes on the bookshelves about the feeding dynamics of some particular species under conditions of environmental stress; this is great; the guy has scientific information; he has a beautiful model; often he runs the data on the computer and goes through pages of equations to show exactly what he did, but he tells me very little about what that means for our coastal zones. He tells me very little about particular coastal zone problems like how to license a power plant, or act intelligently when we're in a public hearing. I think it's incumbent upon us all to articulate our research needs a little better. I don't see how else we'll get the research findings we'll need.

(Premetz)

Well, I would rather that you had said "your information requirements" or "your information needs" rather than research, because it isn't always "research" at this point.

(Bradley)

That's a good point; that's a real good point.

(Premetz)

For example, when we talk about the kind of criteria you would apply to any developmental situation in coastal zones, that isn't necessarily research; but, it is research to the point that you have to go out and find out from the scientists what the requirements are, and you have to crank this information in so that when the planner goes out there and decides what he's going to do, he knows what to look for, he knows the things he's got to consider, and he knows

what information he's got to get from one source or another.

(Bradley)

Alright, scratch "research," and include "information." I think that's a good point. I fall into that semantic trap myself. I leave my office and my secretary says, where are you going? I'm going to the library to do some research. I'm going to read the magazine, you know, but that's not lecturing; that's research. (Laughter)

(Premetz)

Let me try something out for size. Try to draw a parallel between what we have been trying to do and taking a look at extended jurisdiction. Basically, we see a series of systems that are interrelated. First, there would be your information system or the information you need to get the job done. Next would be your allocation system: in other words, what do you do with that habitat based on the information requirements or the information you've developed? In exercising that responsibility you have a communications system, or a coordination function has to exist. Then you have a control function: there are a number of agencies that are responsible for keeping this system honest, for enforcement of laws and things of that sort. And then, last but not least, you have a utilization system: in other words, how do you facilitate the development of the coastal zone, or how do you develop it for the benefit of the people? Now, I can see parallels in all the things you are doing; once you use those terms from management, I see all of these things coming to the foreground. Because, when we're talking about fishery management, I see those five distinct functions in systems, whatever you want to call them. I see them as very closely interrelated. I think, basically, you can almost structure your discussions in this fashion. You know, in other words what your're going to be doing is building a model for coastal zone management.

(Bradley)

Then your suggestion is that we structure the presentations in our next meeting in some organized way. OK. Let's say, that it's very tough to do that because you have to invite guys to talk about things out of context. They are going to want to talk about things that they are into.

(Premetz)

Well, maybe this next one isn't the time; maybe later. You know maybe you have to develop and move toward something, but basically, if you're developing a curriculum, I think this is going to help you greatly because you have a total system of coastal zone management, and know where the gaps are, and know where the needs are, and know what kinds of background these people have to have if they are going to function in this system.

(Bradley)

Let me say once more what would be a good thing to do at this next meeting of ours.

I think it should be the kind of conference that addresses itself in substance to what you need. I can't ask you to come unless I am satisfied myself that we are going to try to address your needs. Why should I waste the taxpayers' money to have you come, if it's not directed toward your needs.

What we'll need after the coffee-break (and at any time up until and including the next meeting) is any idea (any glimmer, and 2:30-in-the-morning idea that you sit straight up in bed with) or what would be a good subject that deals with your needs, that we can invite a guy to come here and talk about. Or maybe you'd like to talk, which would be terrific. Lot's of glory; no money; but we'd certainly be interested in your experiences and the things that you have to say.

COFFEE BREAK

(Bradley)

Let's do one or two things and then wind this up. First, Dick Hickman said to me that he couldn't articulate an idea he had and then he proceeded to articulate it very well. It's an idea he had about the importance of urbanization in the future of coastal zones, and instead of trying to second guess what he said before, I would like to ask him to please articulate that to the whole group.

(Hickman)

Well, perhaps because Ken Prest and I both represent some form of the energy business I thought that some of our attention might be directed specifically to energy, and yet it is my position that while the business does have some impact on the coastal zone, it is by no means the only impacting agent.

Perhaps the most significant impact, as Pogo says, "is us." I refer to urbanization. I think that we need to give serious consideration to some sort of demographic "resolves," or to some sort of theory about what populations want to do, and the needs of urbanized areas, and how you manage urbanized areas. Certainly a coastal zone management program needs a course of study in urbanization. Just consider urbanization and recreational needs: you know people are going to use the coastal zones and even recreation areas require a certain amount of development and cause a certain amount of change in coastal zones. I just didn't want us to lose sight of this subject, and I think the urban areas need to have a significant consideration in any program of this nature.

(Hall)

The recreational thing is definitely very important in coastal areas.

(Hickman)

Well, I know for sure that it's not very advantageous to have two hundred dune buggies out running over the dunes and things like that. I came from South Texas to my current job, and we had that sort of problem along Padre Island and

the press of people was a problem, in general. I think most of you (if you've seen the population growth curve in the world) know we've got a problem, and we know that people have got to settle someplace, and we've got to manage our population somehow. I didn't want people to lose sight of the fact that it's the influence of population growth even without industry--thats our problem. If we have to do it all by hand, we've still got to control man's own residues, which, I think, are going to have a serious impact. And, residues not only impact on the land, but impact on all fishery areas and nursery areas along the coast.

(Bradley)

You have made an excellent point and one, I think, we sort of strayed away from, and it was good to be brought back to it.

Also, during the break, Dr. Freeman gave a hint to me that I think might be valuable for our consideration. I have been talking about our next meeting as though we have to have organized presentations from the podium or around the table like this. Now, if the meeting is going to be a day and a half or two days long, I'd like to know if you think workshops the second day would be a good idea? For example, we could have a group of six people, perhaps, sitting at a table dealing with one specific issue from all the needs of coastal zone managers. Like: How do you define the coastal zone? or, How do you get a handle on urban growth and anticipate it's future implications for the coastal zone. We could be working out some ideas instead of just listening to "canned" ideas from some speaker, even though he knows what he's talking about.

(Prest)

I'd like to make one comment on that: workshops can be very effective or very ineffective. I have participated in both kinds. One way that a workshop can be an effective experience, is if the individual has an opportunity to plan for that

workshop, to organize his thinking, and prepare to participate. Although I did not participate in a particular one I have in mind (it was a conference held in Atlanta several months ago on nuclear energy centers) as a part of the application or registration for this conference, they sent out a flier that was a very detailed presentation of the topics that were going to be covered in these workshops. Because this was a workshop session, they tried to structure it and raise questions, raise problems and raise ideas which would stimulate thinking and organization of thought by the individual participant so that when he came to the workshop, he was prepared to contribute rather than just spend time "mulling over" ideas that hadn't crystalized. So, if a workshop is used, I would recommend that we do a little planning and fore thinking in preparation of a stimulating flier to prepare participants.

(Bradley)

That's a good point. And at least we now have an indication of some possible topics to be discussed. Some of these look like they are naturals: the hard ones. I think it would be easy to get someone to talk about the evolution of environmental regulations; anybody who's had their eyes open for the last ten years pretty much knows a little bit about the evolution process, and you can write a paper, you know, on how the National Environmental Protection Act came about, and then the Coastal Zone Management Act followed by the Endangered Species Act, and the Marine Mammals Act and summarize it, but it would still be the kind of thing that works well on paper and as a public presentation. While urban growth and its future implications in the coastal zone might be the kind of thing that you discuss in a workshop situation and get some genuinely stimulating ideas.

(Prest)

Even the evolution of environmental regulation could be very effectively handled

in a workshop; after an opening section how it was and happened in the past you could ask the questions: where is regulation going in the future? How are we going to use regulation effectively so that it doesn't become burdensome and expensive?

(Premetz)

Yeah, what we're doing now is getting sort of an academic treatise, and basically, I don't know how much that's going to help you design a curriculum for students. Now basically, as I view it, probably the best approach that you might have if you're going to have a workshop is to take representatives of the federal and state groups and have them give you a presentation as to what they are doing, what their job is, and what kind of things they do. You, as people who are training students to do jobs that are in demand, ask the practitioners to tell you how to do your job better. Maybe we don't see the forest for the trees in many cases. Here's the job to be done. Here's what we can do for you in training people that can fill that niche; and you see the relevancy then of public administration to the job that we have to do as individual agencies. Now I think that sort of dialogue is going to give you a lot more help than going into projections into the future and urbanization and things of that sort.

(Hall)

We're putting ourselves in the position of telling people what we think we need to get from schools.

(Premetz)

But I think that comes out logically, if you tell them what job you've got to do. Here are the program objectives. Here are the things that we have to deliver within a certain time frame. Here's our job. Alright, at the present time we have got such and such talents; OK, then how can we effectively work this out?

(Prest)

That's for the immediate future, but we're talking about educating students a year, two years, three years or four years. So what we need is a short as well as a long range set of perspectives.

(Premetz)

We've been in business for a little over one hundred years now, and we haven't changed what we're doing.

(Prest)

Your commerical Fisheries has changed; it's going from supporting of commercial fisheries to (inaudible remarks). (Laughter).

(Hall)

The technology hasn't changed a great deal.

(Prest)

Maybe it should have changed. (Laughter)

(Hall)

If you think about fisheries today, it is not commercial fisheries where the research is being used; it is in recreational fisheries where the research is really big. The importance of a single sea trout maybe measured by the forty to fifty bucks that it costs that fisherman that goes out and catch it.

(Allen)

To go back one step even before this. I think these are very pertinent to be kept in mind: What I would like to know is who is going to be at this seminar? What is their professional level? In how much detail do you want the problems to be presented? How many are going to be there?

(Bradley)

Well, before today, I would have had no sense about the next meeting. After today, I have kind of a rough sense about the next meeting. I have a sense

that we are going to be the people that really carry forward the ideas, and I have a sense of the kind of good quality thing we can do. We will probably invite some outside speakers (academics) and it all depends on whether we can get them. Agency people: again, it all depends on whether you can get them. We'd like to have people that can make good formal presentations on areas of interest, but I am still convinced that it's sort of those of us around this table that count, because although I am the one responsible for this curriculum, I would really get a sense that you are helping me and that it will sort of reflect what we do here. Those who will be there will include the students, some outside speakers, and other agency personnel. The reason that more agency personnel will be here is because there will be a little bit of funds available next time to maybe defray gas or motel bills or other expenses, and I think some state agencies, especially, will be more happy to send some of their people if they get some help with the per diem.

(Hickman)

Mike, it's getting late and I'm going to have to run pretty shortly and catch an airplane, but let me pass on a couple of thoughts in regard to speakers and some people who have been through some of these things. Ah, number one, I believe it was the University of Florida that just recently put out a study on the coastal impacts of potential for offshore drilling in the state of Florida; now, there were a number of people who participated in that study and evaluated impacts, and there may be somebody (I am not familiar with the particular writers), in that group who you may know that may be worthwhile to invite to present here. I know what kind of people they are using, and they can tell you what kind of problems they ran into, and what kind of people they need. We have already talked about agency-type personnel; I don't think we should overlook the possibility of having somebody from one of these consulting firms

come in, and I have in mind specifically somebody from Woodward-Clyde who, for instance, has just done a very massive study for us (for the American Petroleum Institute that is) regarding impacts largely in the coastal zone to the Mid-Atlantic. They can give you some conception of the type of people they use, and what they need, and the sort of approaches they take in a problem when trying to evaluate environmental and socio-economic impacts, and how they proceed basically as they lay down plans that this is going to occur. So I offer those as possible people who could contribute something to the second meeting.

(Bradley)

Thank you; it was a good offering. You know, what I want to do at the second meeting is to make it the kind of thing that if you come to again it will be worthwhile. My inclination is to say let's pick up this professor and that professor and another professor and let them tell us about what they are doing. And let each one lay his ego out there and tell you about what he's into. I just don't see that as being very interesting. That's why I am after you to articulate what you think you need, and maybe we can't give it to you, but at least we can start that way; we can try. We can invite the kind of people you think you'd like to listen to, and we can talk about the kinds of things you think you'd like to talk about.

(Prest)

In terms of developing that topic of <u>the things that you think that you need,</u> I think that it's also important to reflect on why you are not able to obtain information or satisfy needs at the present time. Whether it's the way systems are organized or people are organized; whether knowledge is available; and knowledge may not be limited, but it possibly can't be collected within the time frames and dollars available. . . . You know these are the types of things that

effect our ability to accomplish a particular result in the administrative process. Too often we go to conferences and seminars where we talk about what we're doing, but never really talk about how we're doing it or the problems we're having doing it, and why we are having those problems or how we can circumvent those problems or the cost of those problems, or the meaningfulness of the information gained when collected a way. We talk about the substantive or policy things and forget about the process, so I'd suggest that as an area to be explored. Why can't we satisfy needs at the present time? What are the stumbling blocks?

(Freeman)

When you (practitioners) are doing your job, what are the problems that you can't solve? When you are doing your job and you reach up for a reference book or for a body of data and they're not there. . . , what are those bodies of data? What should be the agenda for research and for data collection in the area of coastal zone management? Who is creative enough in this whole new area that you might want to hear them talk (that is, think right off the top of their head)? What are the names of three or four of the leaders in this field who we could get around a table with a room full of people listening to them interact with each other? I gather that the Odums are exciting people to a lot of others. Are there other people like that? Is there some one person, or is there any particular group of politicians from Washington worth listening to?

(Allen)

Do you want a frank answer to that??? (Laughter)

(Freeman)

Is there any group of politicians powerful enough in Washington so that you have to listen to them?

(Hickman)

Now, I can support the panel-type thing; I think more than individual speakers, I would prefer to hear them banter about between themselves on some of their problems. We should get people of similar backgrounds or at least with similar types of problems.

(Allen)

You can get four people. I think any of us here at the table could name a number of groups of people who are impressive in their fields, who are accepted authorities in their fields, and not a single damn one of them agree with each other. Now you get these four people at the table and turn them loose and you are going to get the most interesting, informative sort of experience that you can. You get Dr. George Romsfeld and Gordon Gunner or two other similar fellows together, and you probably have got more brains (right there in a bundle) about the fisheries business than anywhere else in the United States, and none of them agree with each other. And if you can't learn something from that group, why you are absolutely dense. But the point is: are you trying to have a meeting to inform us? Or are you trying to have a meeting for us to inform you?

(Bradley)

Well, it's going to go both ways, I think. I mean, we can't inform you because we're not informed yet. And you can't inform us completely, because you are not informed yet about what we are trying to do. That's why we broke the ice here today. As Don Freeman offered some suggestions to think about. . . also think about next time you get frustrated and some employee of yours turns in a report that just doesn't meet the requirements of the National Environmental Policy Act of the Coastal Zone Management Act, or if you think to yourself I wish I had some idea as to who could do "X," write down what he should be able to do and let's talk about including that kind of training in a curriculum like this.

(Allen)

I'll tell you what we need is somebody who knows how to write an environmental impact statement. I review approximately 150 of these things a month, and 149 of them are garbage. When I have read three of them, except for a few numbers, I have probably read them all.

(Freeman)

Let me ask you to clarify that statement. Are you saying that they don't know how to write? Or are you saying that they don't know how to write environmental impact statements?

(Allen)

They don't know how to write, for the simple reason that they don't know the fundamentals of English or even how to spell.

(Bradley)

Well, that's the fundamental problem compounded; and ninety percent of them haven't read the National Enviornmental Policy Act, so they follow a little formula. They don't know how to write an impact statement either. And then, unfortunately, these consulting firms I talked about in such glowing terms are welfare recipients. They say the same thing over and over; he's exactly right; you read one impact statement, and you've read them all. They all have a list of the common indigenous birds, and they list the birds, and then to show you how scientific they are, they put in the latin name, and that becomes the ecology section of the impact statement. It's most frustrating. (Laughter)

(Allen)

The brown pelican has become an endangered species all the way up to Nova Scotia because nobody has ever seen one of them. (Laughter)

(Freeman)

Well, I'd like to know some more things we can include in future conferences

and what your needs are. One of our particular burdens is: we have some money, a Title IX Institutional Grant, to inform practitioners. Our responsibility is to run workshops or symposiums for practitioners, to invite all relevent people and to follow the rule that there'd be no cost to them for coming. One of our problems, when we got started in coastal zone management was we found out that we didn't know exactly what you and other's out in the field needed. Of course they're our needs too. It's a two way street. So this is one of the reasons we wanted to get you together, to see if you can tell us more about what you need and what is important for us to put on our agenda next time.

One of the questions in my mind too is arrangements. When is it best to try to run this workshop? What days of the week are easiest for something like this? Is it better just to pull out of your job and come during the week; I gather that seems to be the best thing to do rather than come on a week-end. Would it be better to meet out at the beach?

(Unidentified Panelist)

I would say so.

(Freeman)

Should we meet on the campus, or in a motel or conference center? Do you have any preferences about those things, or should we just do our best on those questions?

(Martin)

I think for as far as federal employees are concerned, we might prefer areas where the motel rates are a little bit cheaper. There's a per diem problem.

(Freeman)

I think for the next one we can do something about that. We can negotiate.

(Bradley)

Now this is a good seminar size, but should we run two seminars or three?

Should we have double this many people, if we can get them? Triple?

(Hickman)

If you get many more than you got now, you have got problems.

(Bradley)

Well, thats been my experience too; yet, you hate to be an elitist group and only the select few.

(Allen)

If you include all the ones supposed to be here who aren't, you're going to have a pretty large group.

(Freeman)

If you have a fairly large group to hear the discussion on the formal side, you can then break up into smaller groups and go out and brainstorm for solutions to problems.

(Moxon)

The American Assembly system or something like that?

(Premetz)

Then you propose to bring it back together too?

(Bradley)

Well, I'm really counting on your experience. I don't have much experience in running these things, and I've stopped going to most of them because they waste my time.

(Premetz)

I'm interested in one thing that you said; the grant that you have received is designed for you to set up workshops for practitioners; now what would you consider to be practitioners? The people that are now involved in coastal zone management and planning? At the State level?

(Bradley)

Well those, but not exclusively. For instance, I wouldn't exclude Mr. Cowley though he works for an association. I wouldn't exclude people from industry; you know that Dick and Chris both have been a source of great insight today and I strongly support their continued contributions.

(Premetz)

Looking at it from the standpoint of a representative of a federal agency that has certain responsibilities related to coastal zone management, but more directly related to living-working resources which are affected by coastal zone developments, if I were looking at this sort of a program at the academic level, what I'd like to see would be something that is aimed at the practitioners. You've got people in the planning agencies that are trying to develop plans that reflect the needs of all the other agencies. For example, I would like to get them to consider the fisheries values in the coastal zone. Someone else would be looking at mineral values. But, as I mentioned earlier, these people need to have some criteria that they can apply to the development of the plans. What has the guy got to consider? The dialogue would give extra pieces through that plan, and they at least would have to recognize what has to go into the process. As an offshoot of all of this kind of dialogue, I think you academic people will get a feel for the kinds of training that people in coastal zone management will require.

It's sort of an indirect way of doing it, but I think you must recognize the problem of involving people (whether at the federal or the state level) that have their job to do; and there are times when people look askance at going to meetings until they can see the relevancy of the particular meeting or the particular workshop to the organizational mission. Now I can see some relevancy, I have no problems with committing the time, but, quite honestly I would like to see us try to get more out of it. And this might encourage some of the

people that are actually involved in coastal zone management planning to attend too.

(Prest)

I have a suggestion. We have been talking about the needs of agencies and industries in particular; perhaps the needs of the people in general ought to be an emphasis. Certainly, public agencies are set up to meet the needs of the people, not the needs of the agency so much. And, if we discuss the needs of the people, perhaps we ought to include active community leaders which are non-partisan and are not in the governmental agencies. Mr. Cowley is certainly performing that function here, but get a couple of more people like those who are going to help us implement policy, that convince the lay public that this is indeed the right plan. In my experience (coming from industry to the public) there is a jaundice view about industries pushing something, and I know some governmental agencies have the same problem. If they try to say "this is what we ought to be doing," the public response is "you're not going to force me to do that." So what we really need in relevant roles here is the community people who don't have an intimate role in government or industry, but are active political leaders and active community organizers.

(Allen)

It might be good to get the head of the League of Women Voters' committee on environmental matters. Most of these state League organizations have an enviornmental policy consideration group, and, needless to say, these women can ask more damn questions about the environment. They are very, very good.

(Bradley)

And all of them are very good questions.

(Allen)

That's right. They are a super group. They are hell to try to snow-ball, but

they're a great bunch. They've got a vital interest in this subject.

(Bradley)

Good point!

Well, I promised we'd break up formally by 3:30, but I think we are going to run over a couple of minutes, because I would like to take the opportunity to briefly summarize.

We've got here a developing MPA program focused on the interest that we all share: coastal zone management and coastal zone planning problems. We've got here what is unique in my experience: an opportunity for hand-picked practitioners in the field to have an input into the program, to tell us about needs, to tell us what they think of certain courses, and to tell us what they think about certain emphases and things like this.

We've got an opportunity to get together again on a little larger scale at our next meeting, with perhaps more formalized presentations, perhaps some small groups in workshops, perhaps some opportunities for advanced preparation for all of us, at least maybe the titles of the kinds of things we'll try to stress so we can crystalize our thoughts. The point was made a couple of minutes ago that before we come to the next meeting, we should be able to talk specifically about problems--not generally the way we did today. Most of all, we have got a group that for seven and one-half hours today patiently sat around the table and talked to everybody about this problem, in a way that I have not seen too often before. I think that we've got a rare seminar here. If I had a seminar to teach like this, I would be delighted; it would be a lot of fun. I'd like to encourage all of you to come to the next meeting and help us develop this coastal zone management program, and, to a degree, regardless of the title, it is one you'd be proud to hire a graduate of. I am convinced that since that's the case, we'll be on the right track here.

Panelists adjourned to the residence of Jim L. Munro. The Munro's hosted panellists for cocktails.

Appendix I

The Core Courses and Seminars in Coastal Zone Management for the University of West Florida Master of Public Administration Program

Prepared by Michael Bradley as a Consultant to the M.P.A. Program

Listed below are the catalog entries for each course or seminar. Following the catalog entries are the outlines for each course or seminar.

Proseminar in Coastal Zone Management PLS 500 (5)

The coastal-zone as a resource system; integration of social, biophysical, economic, and political factors; case focus upon land use, water quality, environmental planning, growth management, and long-range natural resources planning.

Land-Use Planning in Coastal Zones PLS 601 (5)

Land-use legislation; strategies and policies for land-use planning including ecological factors, planning methods, and legal considerations; environmental impact assessment; energy planning.

Science and the Coastal-Zone PLS 602 (5)

The application of natural science to coastal-zone management; basic science necessary for rational policy-making; science policy and administrators; outside speakers and visiting scientists will present current material to the seminars.

Politics in the Coastal-Zone PLS 603 (5)

Actors, conflicts, and values in coastal-zone planning and development; examines market forces, agencies, perceptions, and policy-making processes; multi-value integration into the planning process; outside speakers from business, public agencies, and interest groups.

PLS 500 Proseminar in Coastal-Zone Management (5)

This seminar deals with the coastal-zone as an integrated resource system, integrating the social, biophysical, economic, and political factors of the development and conservation of coastal resources.

I. The Coastal-Zone as a Biophysical System

A. Physical Considerations

1. The Air-Water Interface
2. The Land-Water Interface
3. Ocean Dynamics

B. Biological Considerations

1. Ecosystem Analysis

a. Energy flow
b. Material and Nutrient flows
c. Populations
d. Communities
e. Human Ecosystems

II. Social Resources in the Coastal-Zone

A. Population

1. Migration to Coastal-Zones
2. Second order consequences

B. Amenity Values

1. Recreation Activities
2. Beauty and Environmental Quality

C. Educational Resources of Coastal-Zones

1. Science and Oceanography
2. Organized Research
3. Educational Trends and Prospects

III. Coastal-Zone Economics

A. Traditional private markets

1. Manufacturing
2. Housing
3. Small Business

B. Public Economic Goods

1. Public goods and services
2. Non-market allocations
3. Externalities and spill-over effects

IV. Coastal-Zone Politics

A. Public Organization

B. Planning for coastal-zone resources use

1. Traditional allocative planning models
2. Concepts in innovative planning
3. Long-range natural resources planning

C. Democratic Participation

1. Professionals and their roles
2. Organized interests
3. Public hearings and citizen activity

V. Cases and Applied Analysis

A. Land-Use

B. Environmental Planning

C. Growth and its Management

D. Long-range Planning

VI. Summary and Integration

Required Texts:

Hite & Stepp, Coastal-Zone Management

Florida, California, and Oregon legislation

The Eastern Gulf of Mexico, 1973

Kormondy, Fundamentals of Ecology, 1971

Odum, Ecology, 1974

Special section on land-use, Natural Resources Journal, 1975.

Warren, Biology and Water Pollution Control, 1971

Materials and cases on growth, long-range planning, environmental planning

Materials on migration patterns, economic markets, scientific research and education

Henning, Environmental Policy and Administration, 1974

PLS 601 Land-Use Planning in Coastal Zones (5)

This seminar examines land-use planning in coastal-zones, using primary materials as required reading. Incorporating ecological factors, planning methods, and legal considerations, the seminar will discuss current and anticipated developments in land-use planning and management.

A. Planning for Land and Resources

1. Basic Natural Resource Processes
    a. ecosystems
    b. management and crops
2. Basic Planning
    a. allocative, comprehensive planning
    b. resources planning
    c. organizational doctrines
    d. changing toward innovative planning

B. Land-Use Planning Legislation

1. Federal proposals
2. Oregon
3. California
4. Maine and Vermont
5. Florida
6. Methods: regulations, zoning, permits

C. Environmental Impact Assessment

1. NEPA and the state laws
2. Major issues of conflict: impacts, alternatives, and an adequate statement
3. The impact statement as information for resources planning
4. Beyond NEPA: new approaches and concern

D. Net Energy Accounting

1. The net energy concept

2. Planning with energy alternatives

E. Summary and Integration

Materials: NEPA and state laws

Guidelines

Law review articles

Court decisions on NEPA

Planning examples

Freidmann: Retracting America

Godschalk: Planning for Turbulence

Michael: On Learning to Plan - and Planning to Learn

PLS 602 Science and the Coastal-Zone (5)

An examination of (a) the application of science to coastal-zone management, and (b) the scientific method and its use in rational planning of coastal resources. A team taught seminar with a member of the natural science faculty.

A. Science and Coastal-Zone Management

1. Scientific Knowledge and its use
2. Integrating scientific knowledge into plans and decisions

B. The Scientific Approach and its Value

1. Scientific Methods
2. The Logic of Science
3. Scientific Change and Paradigm Shift

C. Integrating Scientific and Other Considerations

1. The Scientific Basis of Resource Planning
2. The Socio-Economic Basis of Resource Allocation
3. The Political Basis of Resource Policy
4. Integrating the Impossible: management for multi-valued objectives by planned change

PLS 603 The Politics of the Coastal-Zone (5)

Actor, conflicts, and values in coastal-zone planning. Market forces, agency doctrines, differing perceptions, and inherent values in coastal-zone development. Invited speakers and outside participants will offer a variety of legitimate logics to seminar participants.

A. Actors in Coastal-Zone Development

1. Public Agencies
   a. management and planning agencies
   b. research agencies
   c. regulative agencies
2. Private Actors
   a. property owners
   b. developers
   c. resource-users from outside

B. Conflicts in Coastal-Zone Development

1. The Conservation-Development Conflict
2. Utilitarians vs. Beauty-nuts
3. Recreationists vs. Industrialists
4. Urban forces vs. Rural
5. Conflict resolution as necessity, opportunity, frustration

C. Values in the Coastal-Zone

1. Re-expression of values
2. Resolving the irresolvible
3. Multi-value integration into planning and management
4. Value change and forecasts
5. The discomfort of strongly-held values - the unrecognized reality of coastal-zone management

D. Summary and Integration

Required: "The ubiquity of values in the planning process"

Jantsch on organizational planning

Michael, The Unprepared Society

Sir Geoffrey Vickers, The Art of Judgment - Social Systems and Social Change Making Institutions Work

Additional readings

Appendix II

GUIDELINES FOR THE PUBLIC SERVICE INTERNSHIP PROGRAM
FOR STUDENTS IN THE MASTER OF PUBLIC ADMINISTRATION
PROGRAM AT THE UNIVERSITY OF WEST FLORIDA

General Information

An internship of at least one quarter (10-12 weeks) duration with a governmental jurisdiction, public agency, or quasi-public agency is an integral part of the M.P.A. program. The student receives ten academic credit hours for the successful completion of the internship. Career objectives may require a longer internship, an internship split between two or more agencies, or more than one internship.

The student should begin his internship after he has completed his course requirements.

Objectives of Internship

The internship is expected to provide the student with a learning experience designed to give him exposure to an understanding of the environment, the functions, and the tasks of government and of particular agencies. Specifically, the internship should accomplish the following objectives:

(1) The intern should get an exposure to the performance of specific administrative tasks, such as tasks in personnel and finance administration, planning or other tasks performed by the agency.

(2) The intern should get an exposure to the process of policy making in the agency.

(3) The intern should gain an understanding of the relationship between the agency he has been assigned to and the total governmental unit of which this agency is a part.

(4) The internship should be clearly related to the student's future career objectives.

(5) The internship should be designed to enhance the administrative abilities of the student and to aid in his future development as a quality public servant.

The Role and Responsibilities of the Academic Supervisor

The academic supervisor has the responsibility to:

(1) work with the governmental agency in developing and designing the internship;

(2) select qualified students, in cooperation with the agency, and provide them with the necessary orientation to the educational opportunity of the internship;

(3) communicate with the intern on a continuous basis, and where possible, engage in on-site visitations;

(4) make arrangements for the joint evaluation of the internship experience by the student, the academic supervisor, and agency representatives; and

(5) evaluate the paper the student will write as the final phase of his internship.

The Role and Responsibility of the Participating Agency

Governmental agencies wishing to participate in the internship program have the responsibility to:

(1) designate appropriate staff to coordinate the intern's assignments within the agency;

(2) participate in the selection process to assure that the student's academic background, work experience, career aspirations, and interests relate appropriately to the on-the-job assignments;

(3) develop an orientation for the intern, the faculty supervisor, and supervisors within the agency, who will be responsible for the intern;

(4) assure that the intern is involved in meaningful tasks, which permit acceptance of responsibilities and maximum professional growth;

(5) assure the participation of the intern in auxiliary opportunities, such as staff meetings, conferences, hearings;

(6) assure that the intern has accessibility to top management;

(7) assure that the in house intern supervisors provide appropriate supervision of the intern;

(8) participate in reviews of the internship assignments, adapting the program when necessary to meet the intern's capabilities or the needs of the agency;

(9) make arrangements for the evaluation of internship assignments (involving the intern, the academic supervisor, and the agency supervisor in the process); and

(10) give feedback to the academic supervisor concerning the internship program.

The Role and Responsibility of the Intern

The intern has the responsibility to:

(1) particpate in the selection of an internship which relates closely to his career objectives, academic background, and work experience;

(2) consult regularly with the academic supervisor to discuss his on-the-job learning experience;

(3) consult regularly with his agency supervisor to discuss and evaluate his work; and

(4) write a paper at the completion of his internship. For this purpose the student is encouraged to keep a diary, or a daily record of his work,

impressions, ideas, proposals for change, etc. In the paper the student should address himself to:

(a) description of his assignments,

(b) evaluation of his work experience,

(c) analysis of the operations of the agency,

(d) analysis of the relationship between the agency and the total organization,

(e) suggestions for improving problem solving in the agency,

(f) suggestions for improving the internship program.

The paper should be made available to the academic supervisor and the agency. The student should be given an opportunity to discuss the paper with the academic supervisor and agency representatives.

(5) And, finally, the intern has the responsibility to recognize that outstanding performance as an intern will insure similar opportunities for other students in the future.