

Coastal Zone Management – A Utility Viewpoint

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I think it would be appropriate for us to begin this seminar by looking at the question of why we are here. All of us, I believe, share an interest in exploring what Coastal Zone Management can and will do for our individual countries or states or cities. First I think, however, we should determine if it is really needed. We should ask ourselves what we want the program to do for us and future generations of our countrymen and not just what is required under federal program regulations. We do not want it to become just one more federal program to add to our list that in the final analysis will not add up to much. Let me start by showing you some coastal zone activities in the State of Florida in order that you might get a better feeling for what is happening in that particular locale.



Figure 1.

Figure 1 is a residential use of coastal zone, frequently found. Figure 2 shows a much more highly developed and carefully considered development. Note the dune preservation and the bridges across the dune, for example. Figure 3 shows an estuarine development which has been around for a long time and also shows the heavy population pressure which can be exerted on such zones.

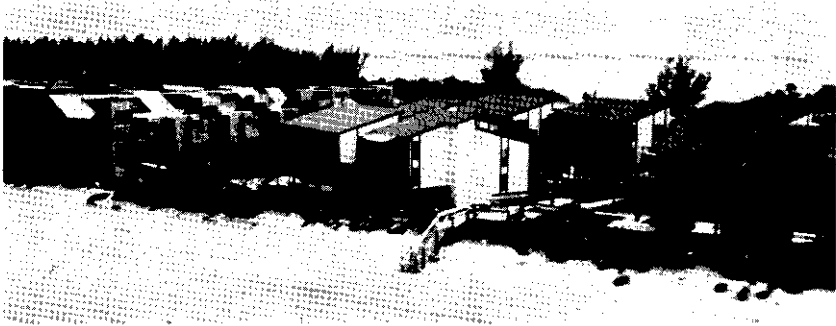


Figure 2.

Figure 4 portrays the utility's use of the coastal zone. Here you see an oil-fired generating facility at Fort Lauderdale, where highways, oil storage tanks, and generating facilities exist side by side. An aerial view of the entire Turkey Point facility is shown in Figure 5. In this cooling canal system there are some 168 miles of canals around which the cooling water travels over a 2-day period. The system is entirely closed off from Biscayne Bay to the right. To the right you see an area that has been deeded to the State of Florida by the Florida Power and Light Company and it is a lush mangrove area. Biscayne Bay is shown



Figure 3.



Figure 4.

to the north, and Card Sound is south. The utility's initial plan was to take in cooling water from this point, run it through once, and discharge it into Card Sound. It was the judgment of the courts and the Government that the use of this land for cooling canals represented a preferred environmental trade-off to the once through operation of the plant. A well known shrimp project is under way at Turkey Point. Here an entrepreneur has developed a very sophisticated technique for the intensive culturing of the Southeast Asian shrimp *Macrobrachium rosenbergii*.

Figure 6 is a view of a new installation at Hutchison Island, where once through cooling is used, showing the intake canal of the unit under construction and the discharge canal. This discharge canal breached the dunes during the construction period. The discharge goes through 8-foot diameter pipes which extend nearly a mile into the ocean. This is an excellent example of the dune restoration. This picture is about a year old, and I am happy to report that the restoration project has gone very well.

In summary, I am sure that some of you feel that some of the slides are examples of appropriate use of coastal zones, and perhaps others of you feel that some were inappropriate uses. Before proceeding further, let me make a couple of points which I think are very germane to this entire issue. The first point is the fact that the process of resource allocation is a *political* process and not simply an ivory tower exercise. As such, it must not arbitrarily overlap or supersede established governmental structures which have historically been responsive to the needs of citizens. Secondly, we must also continually remind ourselves that not all resource allocation decisions can or should be made exclusively in the public sector. Some level of governmental intervention is

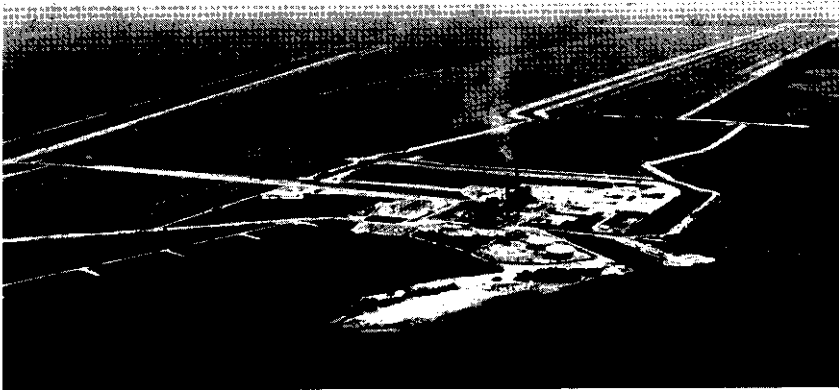


Figure 5.

obviously necessary, but the real question is how far do we go. Further, at what level of government do we place the power to make tough decisions where there are difficult tradeoffs?

The need for coastal zone management is derived from the fact that the coast has historically been a prime site for industry and major cities; due largely to their transportation advantage while at the same time it is the location of some of the nation's most significant recreational amenities and natural resources. One important assumption of the program is that with sufficient information and the proper mechanisms for making development decisions, these competing and often conflicting aspects of the coast can be reconciled. Two aspects of the U.S. Coastal Zone Management program are particularly crucial. . It calls for *State management* of the coast, and the effort is to be a *comprehensive* one. The U.S. Coastal Zone Management Act of 1972 requires that all federal activities, with the exception of national defense, must be consistent with the approved State program. The act does give the State some measure of power by providing additional funding to the State as an inducement to participate in the program.

The word comprehensive is also very important. It takes into account every activity having a significant impact on coastal waters such as ports, residential development, waste disposal and power plants. Even though the program is limited to the coast, the integrated and systematic management of land and water resources required by the program could provide the model for establishing an integrated management developed process for all Florida. I stress the word *model*. It will *not* be the complete answer in and of itself.

Now for some specific comments about the way utilities view the coastal zone management concept. First, why are utilities interested in putting power plants in the coastal zone? Well, a coastal zone setting provides an ideal location for a power plant; ready transportation for fuels, abundant cooling water, proximity to load centers, and so forth. And we all recognize that coastal zones, particularly in the State of Florida, also contain unique and fragile ecological resources and, being a high amenity area, they are coveted for residential, commercial, and recreational sites.

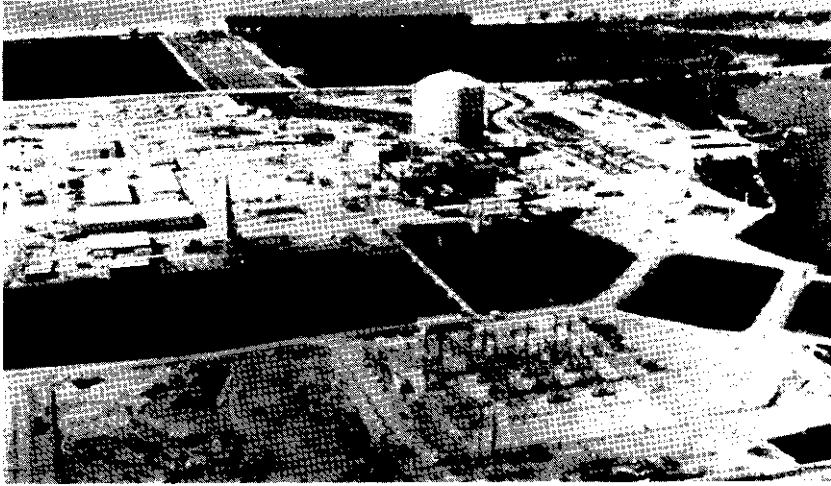


Figure 6.

Electric utilities are inextricably wed to the communities they serve. Insofar as coastal zone management benefits these communities, it will in the long run also benefit utilities. My understanding of coastal zone management is that it is not strictly an environmental protection program, but is instead to achieve a *balance* that at the very least preserves the economic values that provide a means of livelihood for coastal residents.

This balance should entail weighing the costs and benefits of management decisions giving serious consideration to the impacts on social and economic conditions, including the cost of potential opportunities foregone by pre-empted uses or users, particularly coastal dependent uses. And then there is the question of the impact of relocating or redistributing this pre-empted activity. In making these decisions, the program must consider how much Floridians would be willing to give up or to pay for environmental preservation and enhancement.

The art of balancing will be most crucial in the management phase of the program where permitting decisions will depend on the activity's consistency with the coastal zone plan, and on judgments of the "public interest" in situations where there are difficult trade-offs. Beyond the certification of power plant sites for which Florida already has a laboriously worked out process in the Electric Power Plant Siting Act, utilities are heavily involved in numerous smaller construction projects and are required to obtain and periodically renew operating permits for each plant. One major Florida utility alone processes several hundred federal, state, and local permits every year.

Balance is also a necessary feature of the policies that will serve as a basis for determining permissible and priority land and water uses in the coastal zones.

The continuing reappraisal of management policies is essential to the horizontal and vertical coordination of governmental activities needed to achieve management goals.

Finally, let us look at some of the problems that utilities see in developing and using land use or coastal zone management policies. First, it is not at all easy to foresee all future situations and circumstances which may arise in the implementation of these policies. Second, policies are not standards and regulations. They are frequently qualitative as opposed to being numerically measurable. Thus, they are not subject to ready verification to determine if they are being followed. Third, the interaction of certain policies in unforeseen perverse conditions acting at cross purposes is not just possible, it is indeed probable where many broad sweeping policies are applied at once without any means of pre-testing. Fourth, policies tend to be either ambiguous or absolute. They are subject to widely differing interpretations by differing parties. Then uncertainty and conflict arise. Fifth, although they certainly do not have to be, environmental policies are frequently negative; oriented solely around restrictions and punishments rather than positive inducement. Perhaps, it is much easier to identify what you do not like than what you do like.

To close on a very positive note, I am confident that a rationally administered coastal zone management program can be conducted to the benefit of both industry and government. To do so, however, these policies will have to recognize the potential conflicts which I have enumerated. I feel that conferences like this, which provide the opportunity for each side to express its views, will go a long way toward making for an effective coastal zone management program.