Planning Methods

AN ANALYSIS OF METHODOLOGIES FOR ESTABLISHING PRIORITIES FOR THE USE OF CHESAPEAKE BAY WATERS

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The Chesapeake Bay is a natural resource which yields a flow of many and diverse goods and services. Competition by both the private and public sectors for use of these goods and services has been increasing rapidly during the past few years. Consequently, the establishment of use priorities through analysis of trade-offs among the competing and conflicting uses must become an important part of the decision-making process in order to determine the optimum use of the area for any activity when that activity competes with other uses. In view of increasing scarcity of Chesapeake Bay waters for allocation among competing uses, if more water quality improvement is selected for example, then some other product or service such as agricultural production or water-borne transportation value may be foregone or more commercial transportation may mean less surface recreation activities. In economic terms, the foregone values of a product or service or damage to these from an action are referred to as opportunity cost and must be included in any economic analysis.

Because of the nature of their profession, economists have been insisting that economic analysis of trade-offs among competing and conflicting uses be included in the decision-making process. But now the physical and biological scientists as well as management agency personnel are more and more asking for analysis of the economic implications of environmental related changes and what effect these changes will have on the overall economy of the area. This concern stems partly from a realization that economic analysis is a must for effective decision-making but also from a realization that the Reagan administration is demanding an analysis of the impact of any changes on the economy.

A fairly large body of knowledge exists on theory underlying use priority analysis and the application of that analysis to water projects

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of various types and sizes. But this analysis has not been successfully applied to water use decisions in the Chesapeake Bay area except in a few isolated, specific cases.

The primary objective of this resource allocation process is to gain efficiency and equity in the use of scarce resources by allocating them to the highest valued use. Determination of highest valued use should be based on the total set of values which we develop with respect to use of resources. Where resource use dollar values can be established, they offer a systematic approach to allocation of resources among the conflicting, alternative uses. Of course, determination of monetary values is not always possible or desirable. Relative values may have to suffice for the decision at hand. For instance, a question on how much of a given wetlands area to preserve may just as well be based on the relative value of one habitat area versus another habitat area up to some point of comparison. Even so, many of the methodologies for placing monetary values on resource use could serve as a framework to systematically evaluate the two areas rather than simply adopting a policy of preservation of everything.

In economic methodology, a primary use of benefit/cost and risk/cost concepts is to aid in the fundamental economic task of allocating scarce resources to alternative uses. Also, the concept of marginalism -- small or incremental changes -- is used for establishing choices at the margin. The important question in marginal analysis is whether the incremental increase in value gained from one use is worth the opportunity cost or value foregone in incremental changes in other uses. Some of the criticism of relying on economic analysis in the decision-making process and particularly use of benefit/cost type analysis is justified. Nevertheless, much of the criticism results from a misunderstanding of the methodology and a misuse of economic analysis by some economists as well as scientists in other professions.

It is one matter to rely solely on a B/C ratio and another to utilize the underlying methodology of B/C analysis. At the federal level the B/C ratio has been used more as a tool of the executive branch than of the congressional branch. As used the B/C ratio has mostly included only national economic development. The B/C ratio has allowed the executive branch to intervene in the popular pork-barrel process (certainly a legitimate function in our democratic process), and although much over-simplified in analysis, it has been used primarily as a veto tool to prevent less desirable projects. Of course the emphasis is no longer on national policy formulation and big development projects but has shifted to local and regional needs. We do not need more refinement or more sophisticated manipulation of the B/C techniques but we do need to use that analysis in setting priorities and establishing trade-offs. B/C and other economic methodology must be fed into the political process along with engineering cost-effectiveness, environmental impact and social impact analysis particularly at the local and regional level. Economic analysis plays a major role in each of these components of the development and management process.

The primary focus of this section of the paper is to review recent developments in methodology for resource use valuation. Many resource use values are easily determinable through prices as determined by the market economy. These prices reflect scarcity and a willingness of the consumer to pay for the good or service. Demand and supply factors

determine price based on uses of land, labor and capital resources. These prices reveal preferences and collective choice and, in turn, reveal the utility of that good or service to man. For instance, the impact of additional port activities on income and employment in the area or region can be determined from market prices. A decrease in value of fisheries products can be determined from market prices when the fish products can be determined. Because of market failure and existence of common property resources, other use values cannot be determined in the market. But many use values can be estimated through a body of developing methodology which is based on estimates of people's individual and collective preferences for one good or service of a resource use relative to another use. In the following section, techniques for both market goods and nonmarket goods are discussed.

Market Goods Estimating Techniques

Several market goods estimating techniques can be fairly easily applied and used to establish resource use values. Three examples of those techniques are discussed here.

The consumer surplus approach for marketed goods can be applied when the analyst is able to calculate the cost change for the marketable good and when he has information on the demand function over the relevant range. Most marketed goods and services are amenable to this approach.

In the net factor income approach when the good in question is an input into the production of a marketable good, the economic effect of a change in that good is to change the incomes of fixed factors of production. The increased productivity accrues in the form of profit or in the form of rent to the fixed factors of production. With sufficient knowledge of the production unit, it is possible to estimate the changes in factor incomes. The net income approach is applicable to the commercial fisheries. If the fishery is being appropriately managed to maximize net economic yield, the value of the change is equal to the market value of the changed yield.

Under the cost savings in production approach, where the good in question is a perfect substitute for other inputs in the production of a good or service, a change in the good in question leads to a change in factor input costs. Where the change does not affect marginal cost and output (or the effect is small), the cost savings is a true measure of the benefits of a change. This approach may be appropriate for assessing industrial water supply benefits if it can be assumed that factor and production prices will not change.

Even with these well-defined market techniques some important and easily measured components are very often overlooked in environmental type decisions. These include administrative and overhead costs, cost of obtaining knowledge, and project evaluation costs. Because of market failure and existence of common property resources, other use values have not been included in market price determination. A most important but often unmeasured and totally neglected cost (benefit) component occurs when one activity impairs (complements) other functions and services - the opportunity cost (benefit). As previously stated, they refer to the value foregone for employing a resource (the water assets of the Bay) in, for example, waste disposal rather than its best alternative use. More effort is needed to include opportunity type costs

and benefits in the analysis.

Nonmarket Goods - Estimating Techniques

The second category of goods and services is the nonmarket type. These are goods and services for which price has not been easily determined by the market economy. Nevertheless, a body of developing methodology, which is based on estimates of people's individual and collective preferences for one good or service of a resource use relative to another use, is being used to estimate values for nonmarket goods and services. These techniques have been applied to specific cases.

Costs and benefits for nonmarket goods and services are being measured by both direct and indirect methods. Direct methods involve measuring physical changes and calculating the economic value of these changes. Indirect methods measure changes through use of market data, personal interviews, or rating procedures to determine how people are willing to pay for a good or service.

Three logical and proven approaches to estimation of demand (and consequently value) for nonmarket goods are being used (Freeman, 1979).

A. The first approach is to analyze market transactions for goods and services which have substitute or complementary relationships with the good or service in question. Such approaches include use of property value differentials, household expenditures, maintenance and repair of damaged materials, and travel costs incurred to participate in outdoor recreation. Unless the substitute or complementary relationship exists it is not possible to estimate the demand (and value) for the good in question by using observable market data. For example, amenities of the area's environment may not be directly associated with market good consumptions. Of course, appropriate assumptions must be used to impose restrictions on the form of individual utility and demand functions.

Where weak complementary exists between the good in question and the market goods demand function it is possible to compute demand or willingness to pay functions from market data. The primary empirical requirement for utilizing this technique is that we be able to obtain econometric estimates of the demand function for the market goods as a function of quantity as well as prices and income.

If perfect substitutability between the good in question and the market good's demand function can be assumed then it is possible to compute market good's demand or willingness to pay functions from known or observable technical consumption data. For example, if defensive expenditures made to prevent or counteract the adverse effects of pollution are a perfect substitute for reductions on the level of pollution, then an individual can effectively purchase the optimal amount of water quality through defensive outlays.

Another market approach technique is a method for estimating the implicit prices of the characteristics which differentiate closely related products in a product class. Any unit of a product or commodity class can be completely described by a vector of its characteristics. For instance, a demand function for environmental quality is estimated through a two-step procedure in which the implicit price of the good in question is first estimated by the application of the hedonic price

technique, and then implicit prices are regressed against observed quantities to estimate the demand function itself.

Both the travel cost method and the hedonic price method have been used to evaluate marine recreational fishing (McConnell, 1979). Both approaches rely on observed behavior rather than responses to hypothetical questions. The value of fish allocated to the recreational sector was determined from the recreationist's net benefit function as it depended upon varying catch rates and trips. A household production function framework was used to estimate the function.

Similar approaches have been applied to wetland evaluation (Mabbs-Zeno, 1981), shoreline erosion (Kerns, 1980), surface water congestion (Roy Mann Associates, Inc., 1974), alternative dredge spoil sites (Corps of Engineers, 1978), and commercial fisheries (Strand, 1980).

Techniques to deal with changes in health and mortality have been used on proxies for willingness to pay but have been less successful than the others. Aspelin suggests use of risk/benefit rather than cost/benefit analysis for health and mortality (Aspelin, 1980). In risk/benefit the basic issue is whether the risks of use of a toxic substance (such as pesticides) outweigh the benefits of its use. Consideration of alternative procedures also becomes a part of the analysis.

Alternative procedures for valution of consumption uses of water include observation of market-transactions, derivation from the classical demand function, residual imputation, and alternative cost valuation (Young and Gray, 1972). The observations of transactions involve a bundle of resources. The classical demand curve is derived from observed price quantity relationships. Residual imputation is a procedure which assigns a "price" to resources by allocating the total value of output to each of the resources used in a process. Alternative costing is a measure of value of a substantially different means of accomplishing the same end.

B. The second approach is simply to ask individuals, through surveys and direct questioning, what value they place on a specificied change in a good or service and how much change they would purchase at a given price. These surveys of willingness to pay must be designed to eliminate biased responses. An accurate response is one which is consistent with the behavior which would be revealed if the good in question could actually be offered in a market. Also, the survey question must portray accurately the situation. For example, if the purpose of the survey is to estimate value of water quality changes, the questioner must state the changed water quality accurately and in sufficient detail so that all respondents are reacting to similar perceptions of the changes.

C. The third approach is to place proposals which consist of alternative levels of a good or service and an associated tax increase to referendum vote. Under specific circumstances the outcome of the voting process will be consistent with, and reveal information about the underlying demand curve for the good or service. Serious problems exist with this approach because not all benefits accrue to residents. Where benefits accrue outside the area, voting does not capture all of the relevant demand for the good or service. Also, where some of the costs are shifted out of the jurisdiction, voters are not responding to the true price and voting reveals information about only a limited portion of the demand function.

The following list describes successful evaluation procedures for use in estimating impact of changes in one service, water quality, as related to various measurements of value to people (Meta Systems, Inc., 1979).

Evaluation Procedure	Benefit Category
time budget	aesthetics, recreation
bidding games	aesthetics, recreation, human health
travel costs	recreation
marginal costs	human health, water supply, dredging
net factor income	commercial fishing, agriculture
market study	property values
non-dollar measurement	aesthetics, recreation, ecology
I/O model	local and regional accounts
alternative cost	ecology

Economic theory and associated analysis for placing economic values on most types of resource uses are relatively well-developed. In addition to the criticism of use of benefit/cost analysis on distributional versus efficiency grounds and the lack of understanding and inclusion of opportunity cost as well as transaction (administrative and overhead) type costs, a major roadblock has been the very high level of cost of generating data for the calculations.

Although the economic theory for trade-off analysis is fairly well developed, this is not true for non-economic concepts. Much of the limitation of applying economic analysis has been due to limitation of both theory and data in the realm of biological, physical and chemical sciences and in the way each of these affect human uses of the waters. Recent development by the Environmental Protection Agency's Chesapeake Bay Program to differentiate the Bay into segments for management purposes will provide some baseline data to work with. Segmentation will be based on detailed data measurements and analysis of biological, physical and chemical properties of the waters and will be related to current and future land uses in each designated segment. Our current work on economic analysis and pollution runoff measurements can be accomplished at a much lower cost by utilizing the segmentation baseline data. However, considerable work is needed on valuation of instream uses if we hope to provide sufficient resource use trade-off analysis.

Application of Valuation Process

The first step in the application of a valuation process in water resources is to determine the present status of the water uses as a bench-mark for comparing changes. While water pollution is not the only good or service of concern, that aspect of use has received most of the recent attention and provides a starting point for determining present use status. Several yardsticks are being used to measure the status of waters.

Biological indicators are organisms whose presence or absence can be correlated with certain environmental conditions. Appropriately trained persons can rapidly make subjective judgments on the health or level of stress of an aquatic community, but considerable time and expense is required to quantify this information into a more objective evaluation.

Water quality indices or some combination of indices have been used to evaluate water quality trends (Ott, 1978). Indices range from single environmental variables to weighted produces of several variables. Indices can be classified into four general categories: general water quality indices, specific-use indices, planning indices and statistical approaches.

"General water quality indices" are based on the assumption that water quality is a general attribute of surface waters, irrespective of the use to which the water is put. Some of these indices have been used to value water in our social accounting system.

Some authors view the problem of different water uses as the most important challenge facing index developers and that each index should be designed for a "specific water use." Water quality requirements vary, depending on intended uses; for example, supply of industrial water, recreation, fisheries and maintenance of fish and wildlife habitats.

The "planning indices" category is designed specifically for management decision-making. They are custom-designed to assist the user in making specific decisions or in solving particular problems.

"Statiscal approaches" usually employ some standard statistical procedure, such as correlation techniques or principal component analysis, which is already available in the literature, but has to be adapted for use with the water quality data. These statistical approaches have the advantage that they incorporate fewer subjective assumptions than other indices, however, they are more complex and often more difficult to apply.

At present none of the indices have been tested for suitability or received appreciable usage, nor is there one which appears to be especially appropriate, for instance, to the assessment of nutrient enrichment in estuaries.

Water quality models, general deterministic mathematical representations based on physical, chemical and biological principles and laws, have been widely used in recent years in environmental assessments. Several have been used on the Chesapeake Bay system. The models predict the values of specific environmental variables, such as nutrient and dissolved oxygen levels, but do not assess the economic importance of these numbers (Neilson, 1980).

An effort to use an energy accounting system for evaluation of environmental resources was used in an analysis of a proposed Louisiana superport (Stone, 1976). However, that system has been shown to have very serious theoretical and analytical shortcomings (Shabman and Batie, 1977).

The impact of various types and amounts of pollutants on uses of the bay's waters were categorized by Neilson (Neilson, 1980). For instance, general nutrient enrichment without any biological uptake has a very limited impact on shipping, aesthetics and recreation. But, nutrient enrichment which results in both highly organic sediments and depressed dissolved oxygen levels will produce major impacts--shellfish will probably die and water will be unsuitable for other uses and

aesthetically displeasing. Also use for cooling and other industrial purposes, as well as shipping, could be affected due to the corrosive nature of such waters. Transportation and related industrial/commercial development can add to bottom sediment toxins which can be harmful to many uses.

At the present time these impacts reflect a great deal of subjectivity because there is no simple picture of the effects of nutrient enrichment. At least, the index allows for comparison of use versus source categorization and could be used to warn when conditions are becoming critical and management actions are needed.

One output of the nearly completed five-year, $25 million EPA Chesapeake Bay Program will be a series of biological and physical based pollutant indicators. The indicators are simple pluses or minuses based on changes for a technological control strategy within a predetermined segment of the Chesapeake Bay. With a directed effort to attach some values to these plus and minus indicators, resource managers could have a systematic framework for making efficiency and equity decisions.

The EPA Chesapeake Bay Program baseline physical, biological and chemical data and the continuing work on indices and water quality modeling provide a challenge for the economist to make better application of economic theory and developed methodologies to provide a foundation for resource use trade-off analysis at a reasonable cost. This better foundation for the analysis will result in greater acceptance by resource managers and decision makers.

Summary

This paper provides a brief review and evaluation of approaches to place a value on the varied and conflicting uses of an area's water resources. It focuses on one environmental measure, water quality, as an example of the potential application of the relationships between water quality parameters and alternative uses of the waters as a means to establish use valuation as a guide to impact evaluation and resource allocation decisions. The economic framework exists for valuation of market goods and services and for most nonmarket goods and services. Non-economic concepts such as water quality indices are rapidly being developed . The time has come for us to make better use of both bodies of knowledge to improve resource use trade-off analysis.

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AFFORDABLE HOUSING, COASTAL ZONE MANAGEMENT AND THE PUBLIC WELFARE: POLICY INNOVATION IN NEW JERSEY

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Introduction

Both the Federal Coastal Zone Management Act and New Jersey's principal coastal law, the Coastal Area Facility Review Act (CAFRA), call for the proper use of the coastal zone for several purposes, including residential development, in addition to the protection of coastal resources. Production of affordable housing for all income groups is a pressing, social, economic, and land use issue across the nation. The New Jersey Coastal Management Program, in both its policies and implementation, synthesizes these two concerns, as the New Jersey Department of Environmental Protection (NJDEP), Division of Coastal Resources has required major residential developers to provide 10% low income and 10% moderate income housing units as a condition of State coastal permit approval.

Since September 1980, NJDEP has made four State coastal permit decisions requiring developers of large scale, greater than 700 unit projects, to provide affordable housing as a condition of permit approval in the Atlantic City region. Smaller developments in Atlantic City and its suburbs have been required to make a portionate contribution to an evolving regional housing strategy, based on the number of units provided, the cost of the land, the price of the units, and other factors.

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This paper explains the theory, precedents, legal authority, and housing needs behind the New Jersey approach to requiring affordable housing in the coastal zone. The paper also examines the results of the first 15 months of implementation of this policy and speculates on its future.

Theory, Precedents, and Legal Authority

The Coastal Area Facility Review Act requires, before a permit may be issued, that NJDEP find that the proposed residential project "...is located or constructed so as to neither endanger human life or property or otherwise impair the public health safety and welfare." (N.J.S.A. 13:19-10f). The statute further authorized NJDEP to condition approved permits as "reasonably necessary to... promote the public health, safety and welfare..." (N.J.S.A. 13:19-11). The Supreme Court of New Jersey, beginning with the so-called Mount Laurel decision of 1975, has declared that land use regulatory authority must be exercised in a manner that promotes the general welfare, by making proper provisions for housing for all economic groups. As part of the development of New Jersey Coastal Management Program under the Federal Coastal Zone Management Act, New Jersey adopted a specific coastal policy on fair shair housing in 1978, which stated that "housing developments shall provide least cost housing were feasible." (N.J.A.C. 7:7E-8.6 - 1978). New Jersey also adopted a rule on large scale planned residential developments in 1978 that indicated that large scale, free standing, planned residential developments would be evaluated on a case-by-case basis to determine, among other things, the degree to which the proposed development "contributed to regional housing needs" (N.J.A.C 7:7E-8.11-1978).

The State coastal agency, the Division of Coastal Resources in the New Jersey Department of Environmental Protection, adopted the spirit of Mount Laurel vigorously as part of an aggressive philosophy of land use regulation. NJDEP recognized explicitly that trade-offs do exist in making coastal permit decisions. In theory, residential developers, particularly proponents of large-scaled projects involving several hundred units on sites of more than 100 acres, could skew internally the cost of improved land throughout the development process and take advantage of economies of scale to produce housing that would be affordable to low and moderate income housing groups. Since one of the by-products of the scheme of coastal planning and regulation was the restriction of the development of environmentally sensitive lands in the coastal zone, the body of coastal policies prepared by NJDEP also recognized explicitly the need to promote the general welfare by providing affordable housing where feasible.

The Need for Affordable Housing and Policy Implementation

It is not surprising that NJDEP first implemented its affordable housing policy in the Atlantic City region, an area experiencing all the growth pressures typically associated with boomtown development spurred by the legalization of casino gambling in 1976. The opening of the first East Coast casino, Resorts International, in 1978, and the enormous profits it reaped, spurred and accelerated the process of land speculation, housing abandonment, and an intensification of the urban housing crisis in Atlantic City. At the same time, land speculation, environmental regulation under the coastal management program, and regulation of the Pinelands (after 1979) also limited the supply of easily developable land. Each new hotel-casino had a minimum of 500 luxury rooms and employed an average of 3,000 workers. The numbers of new casinos, plus the economic multiplier effect of indirect jobs, in addition to the new direct jobs created, prompted knowledgeable observers and planners in the Atlantic City region to project a need for thousands of dwelling units, at all income levels, in the late 1970's and 1980's, regardless of the scenario of casino development or specific economic multiplier one selected. While State government and the U.S. Department of Housing and Urban Development made special efforts in 1978 and 1979 to finance new senior citizen housing under the Section 8 program in Atlantic City in the late 1970's, the gap between housing supply and needs increased.

This prompted New Jersey Governor Brendan Byrne, in his "State of the State" address in January 1980, to call for the NJDEP and the State Casino Control Commission, which licenses casinos, to take appropriate steps to increase the availability of affordable housing in the Atlantic City region. One step taken that year was an amendment to the county improvement authority enabling legislation, designed to authorize the existing Atlantic County Improvement Authority, which had previously only financed major public works projects, to become a housing finance agency, operating at the regional level, using receipts from the luxury tax collected in Atlantic City to finance housing construction in Atlantic City. Adoption of the Comprehensive Management Plan for the Pinelands, which included a specific affordable housing policy, is a similar effort by State government. The advocacy and technical assistance provided to those two agencies, as well as to the NJDEP, Division of Coastal Resources, by the New Jersey Department of the Public Advocate and the New Jersey Department of Community Affairs also contributed to identifying the housing needs of the region and promoting policies by the three regulatory agencies with legal authority to address the crisis: Casino Control Commission,

the Pinelands Commission, and the NJDEP, Division of Coastal Resources. The County of Atlantic County also played a key technical assistance and advocacy role, in part through preparation of an Atlantic County Housing Strategy, financed through a grant from the Division of Coastal Resources, using federal coastal zone management funding.

The Affordable Housing Policy in Practice

Since September 1980, the Division of Coastal Resources has imposed the requirement for 10% low income and 10% moderate income housing on four major developers in suburban, mainland Atlantic County. The responses from the developers of these four projects, as well as from the building community in general, varied widely. While only some of the affordable housing has been built yet, reasons for cautious optimisim do exist.

At the outset, NJDEP defined low income and moderate income household using the standard definitions used by the U.S. Department of Housing and Urban Development: "low" is income less than 80% of the region's median adjusted for household size and "moderate" is less than 95% of the regional median. As of October 1, 1981, the ceiling for "low" income for an average size household (four people) was $18,650 and $23,312 for a "moderate" income household in Atlantic County.

The Division of Coastal Resources first imposed the affordable housing condition on the conditional CAFRA permit approving the Bay Shore Centre project, a very large mixed use development proposed for a 300 acre site on the Black Horse Pike, between mainland Atlantic County and Atlantic City, fronting on Lakes Bay and surrounded by coastal wetlands. The developer proposed to build 1,500 units of housing at prices ranging up to $250,000 for luxury townhouse units, in addition to a hotel, commercial space and a marina. The partnership responsible for the Bay Shore Centre project has instituted litigation in the Appellate Division of Superior Court challenging the affordable housing coastal permit condition (In the matter of Egg Harbor Associates (Bay Shore Centre) imposition of conditions of Coastal Area Facility Permit # CA 79-0231-5, Docket No. A-1999-80T2). The New Jersey Department of the Public Advocate has submitted a brief in amicus curiae in support of the Division of Coastal Resources. The developer argues that the affordable housing condition is ultra vires, beyond the "police power" delegated to NJDEP, denies the developer equal protection, constitutes an invalid special law, and is arbitrary. The case has been fully briefed. Both sides now await a formal decision by the Appellate Division.

The second project with an imposed affordable housing CAFRA permit condition is the Towne of Smithville, a 6,800 unit mixed use development on 2,400 acres in Galloway Township and the City of Port Republic in suburban Atlantic County, about 15 miles from Atlantic City. This $1.4 billion project is expected to be completed over a 12-15 year period and will, upon completion, constitute a new community. The Historic Smithville Development Company accepted the permit condition and is actively proceeding toward implementation.

The Smithville project is not without controversy, however, as its site includes three watersheds that flow into near pristine estuarine waters valuable to New Jersey's shellfishing industry. The concerns of local shellfisherman and local, state-wide, and national environmental organizations has prompted litigation, Crema et al. v. DEP, also in the Appellate Division of Superior Court, challenging the decision of the Division of Coastal Resources to grant a conceptual CAFRA permit to the overall project in September 1980. Although the affordable housing permit conditions were not at issue, they were significant in the decision of the Department of the Public Advocate not to represent the environmental group plaintiffs in the litigation. Ultimately, the Department of the Public Advocate decided that the Division of Coastal Resources had adequately protected the coastal environment through other conditions of the CAFRA permit.

The Towne of Smithville is being built in three major phases, with subphases within each phase. More progress has been achieved to date on the moderate income units. In Phase IB the developer is building 360 moderate income, so-called Starter Units of 650 square feet designed for single people. Phase 1C will have 272 moderate income units financed under the Section 235 subsidy program or through tax exempt bond financing expected to be available through the Atlantic County Improvement Authority.

A joint venture of a major housing developer in the Philadelphia region, The Korman Corporation, and Resorts International Casino-Hotel, produced the third housing project to receive a CAFRA permit with affordable housing conditions: The Pinnacle, formerly Wrangleboro Estates, a 1,100 unit project on a 257 acre site in Galloway Township. Resorts International entered this partnership in part to demonstrate its good faith in addressing the region's housing needs, and its social responsibility as its casino license came up for renewal in early 1981. This project also is built in phases. The Division of Coastal Resources accepted the first phase commitment of 28 junior, one bedroom units at a sales price of $42,900 and 72 one bedroom units at a sales price of $53,900 as the phase 1

commitment to affordable housing, with an expectation of a more vigorous commitment in subsequent phases. The developer originally proposed to build a full 25% of the units according to its definition of moderate income, which would have used a definition higher than that promulgated by the U.S. Department of Housing and Urban Development. The joint venture developer, while accepting the permit, balked at the requirements for resale controls, to ensure that the moderate income housing units continued to be made available to moderate income households, allowing for some cost of living increases. The Resorts International also attempted to obtain credit for previous housing investments made in Atlantic City, an approach rejected by the Division of Coastal Resources in early 1982. However, the Division of Coastal Resources did approve the joint venture's proposed marketing alternative of offering the 28 junior bedroom units to investors who would benefit from a five year tax shelter while renting the units to moderate income households for $425 per month.

The fourth major mixed use project with an affordable housing commitment is named Reeds Bay Village, and is located on a site fronting on a bay, in Galloway Township overlooking the barrier island that hosts Atlantic City. While the Division of Coastal Resources originally denied the coastal permit, due to an inadequate affordable housing plan as well as an inadequate site plan and stormwater management plan, through negotiations an acceptable compromise plan emerged. The compromise included a commitment to affordable housing, including construction of 72 units on-site, out of the total of 760 units on a 251 acre site and the rehabilitation of an existing apartment building in Atlantic City by the same developer to create 80 units with financial assistance through the Atlantic County Improvement Authority.

In addition to these four major developments, the Division of Coastal Resources has also imposed a different condition on smaller developments of privately financed housing in Atlantic City and its suburbs, requiring those developers to make a proportionate contribution to an evolving regional housing strategy, basing the contribution on the number of units provided, the cost of the land, the price of the units, and other pertinent factors. Imposition of this permit condition has been limited to projects of about 200 or more units. Due to the bizarre housing economy of Atlantic County in 1980-1981 and the national recession and high interest rates, no new housing is under construction at this writing that is subject to these permit conditions. Also, one developer of privately financed housing in Brigantine, the suburb on a barrier island immediately north of Atlantic City, is contesting the affordable

housing permit condition through the administrative appeals process. And finally, the New Jersey Builders Association brought suit against the New Jersey Department of Environmental Protection on the adoption of a number of coastal policies in the Rules on Coastal Resource and Development Policies, including the fair share housing policy, but later dropped that part of its litigation, after a settlement was reached on other, more traditional natural environmental resource and site planning policies.

Prospects for the Affordable Housing Policy

While only limited affordable housing has been built in New Jersey's coastal zone as a result of the State coastal permit exactions, this tool and the NJDEP willingness to use it have been recognized within the region and state as a major stick necessary to widen the range of housing options in the exploding Atlantic City region. In the words of one state legislator at a conference on affordable housing, while there may have been no legislative intent in the Coastal Area Facility Review Act for this approach, NJDEP had to prod the private sector in order to take some steps to providing affordable housing in the region.

The success of this policy depends upon the use of creative housing finance techniques by developers and by the newly strengthened Atlantic County Improvement Authority. Passage of the Federal Mortgage Subsidy Tax Act of 1980, limiting tax exempt mortgage bond financing for housing by State agencies and requiring an allocation of such bonding authority through the Governor, set up competition between the New Jersey Mortgage Finance Agency and the Atlantic County Improvement Authority on which agencies could use this specialized financing, with resulting delays in financing needed housing in Atlantic City region. Governor Byrne resolved that issue by Executive Order No. 113, effective December 31, 1981, which designated the New Jersey Mortgage Finance Agency as the sole issuer of tax-exempt bonds to finance low interest housing mortgages.

Also, the concept of resale controls to keep designated moderate housing available for moderate income households has met resistence from some developers and land title companies, despite the examples of other jurisdictions, notably California, which have experimented with requiring affordable housing.

Further, the lack of federal subsidies for low income housing under President Reagan virtually eliminated the possibility of low income housing production. NJDEP's stance on the required low income housing is to monitor the

efforts of developers with affordable housing coastal permit conditions to ensure that good faith efforts are made, and then revise the condition as necessary and reasonable to meet practical realities.

To bring the administrative State coastal policy in line with the State coastal permit decisions made since September 1980, NJDEP proposed in late 1981 and adopted an early 1982 an amendment to the coastal policy on affordable housing (reproduced below), changing its name and providing greater specificity to developers on the definitions and conditions under which developers are required to provide affordable housing. And finally, in January 1981, a new Governor, Republican Thomas Kean, the sponsor of the Coastal Area Facility Review Act in 1973, takes office with the prospects for policy change that inevitably follows a change in governors. Also, the New Jersey Supreme Court is expected to render its next major decision on affordable housing, a consolidation of six major cases, that is expected to chart the future directions of this interventionist court that blazed the trail to break up exclusionary zoning in its Mount Laurel decision of 1975. The Department of the Public Advocate made the court aware of the Division of Coastal Resources affordable housing permit conditions during oral argument.

While other state coastal management programs, notably California, have also experimented with requiring affordable housing to meet the public welfare aspect of coastal zone mangement, the New Jersey experience may well prove a model for other states and local governments that attempt to accommodate the diverse uses that seek locations in the coastal zone.

Adopted Amended Rule - January 12, 1982

N.J.A.C. 7:7E-7.2(e) Affordable Housing

1. Definitions:

i. "Affordable" means housing with monthly carrying costs which are not greater than 25 percent of a household's gross monthly income for rental housing, and no greater than 30 percent of a household's gross monthly income for housing offered for sale.

ii. "Affordable housing" means housing which is affordable by low or moderate income households.

iii. "Low income household" means a household eligible for Section 8 housing (income less than 80 percent of the region's median income adjusted for household size, as determined by the U.S. Department of Housing and Urban Development).

iv. "Moderate income household" means a household eligible for Section 235 housing (income less than 95 percent of the region's median income, adjusted for household size, as determined by the U.S. Department of Housing and Urban Development).

i. New residential developments shall provide an appropriate amount of affordable housing for low and moderate income households, where needed and feasible.

ii. The number of bedrooms in the affordable housing shall be appropriate to the size of the families needing affordable housing in the region.

iii. Appropriate agreements shall ensure that the sale, resale and rental of affordable housing is limited to households eligible for low and moderate income housing, and that the units remain affordable.

iv. In determining the need for affordable housing, the following factors shall be considered:

(1) The present and projected future shortage of affordable housing in the region, normally at least in a county.

(2) The number of jobs for low and moderate income people in the region.

(3) The number of existing affordable housing units in the municipality and the need for additional units in the municipality and region.

v. In determining the feasibility of providing affordable housing the following actors shall be considered:

(1) The size and type of the development;

(2) The mix of unity types being built;

(3) Whether the size of affordable units would be comparable to established standards for minimum floor space for the bedroom size involved;

(4) The absence of frills or unneccessary cost generating features from the unit;

(5) The allocation of land costs and on-site improvements among the affordable units and the other units;

(6) Whether the developer can make a fair return on the entire development if affordable housing is required;

(7) The availability of federal and state housing subsidies;

(8) the availability of special financing for affordable housing through agencies such as county improvement authorities;

(9) The developer's commitment to building least cost units on-site or affordable units off-site, if affordable units on-site are infeasible.

3. Rationale:

i. Parts of the coastal zone are experiencing increasing employment opportunities for low and moderate income workers without similar increases in housing opportunities for such workers. The result is extreme competition for existing affordable housing, continued occupation of substandard housing, and energy consumptive long distance commutation. This situation is most severe in Atlantic County, but shortages of affordable housing also occur elsewhere in the coastal zone.

ii. In March 1975, the New Jersey Supreme Court, in Southern Burlington County NAACP v. The Township of Mounty Laurel 67 N.J. 151 (1975) declared that a municipality must "presumptively make realistically possible an appropriate variety and choice of housing...at least to the extent of the municipality's fair share of the present and prospective regional need..." In April 1976, the Governor issued Executive Order No. 35, (amended by Executive Order No. 46 of December 1976) which directed the Division of State and Regional Planning in the Department of Community Affairs to prepare a statewide fair share housing allocation plan. This Affordable Housing Policy implements this State objective by requiring that new residential developments provide affordable housing to the maximum extend appropriate and feasible, given the particular circumstances of the development.

iii. In recent CAFRA decisions, the Department of Environmental protection has determined that major developments of more than 500 units on the Atlantic County mainland must provide at least 10 percent of the units at prices affordable by moderate income households and at least 10 percent at prices affordable by low income households as an appropriate contribution of affordable housing to comply with this policy and the policy on Large Scale Residential Development (N.J.A.C. 7:7E-7.2(i)).

iv. To insure that the requirements are feasible and will not deprive the developer of a fair return on investment, the appropriate contribution will vary by region and by size of development in response to the criteria of this policy.

v. Since the land areas acceptable for residential development have been deliberately restricted by these Rules on Coastal Resource and Development Policies as part of the coastal management strategy required by N.J.S.A. 13:19-16 (CAFRA) which has the unintended side effect of making it more difficult for low and moderate income households to afford housing in the coastal zone, this Affordable Housing Policy is a necessary land use planning technique to offset this unintended effect and promote the public health, safety, and welfare and recognize the economic aspirations of the inhabitants of the coastal area, as required by N.J.S.A. 13:19-2 (CAFRA).

vi. Atlantic City is a unique case in that is has more than its fair share of least cost housing but as casinos increase the demand for and cost of housing, it is necessary that new least cost housing be provided in the city and its surrounding coastal region to accommodate persons forced out of housing by rising costs as well as people attracted to the region by new jobs.