



The RELATIONSHIP between ENVIRONMENTAL QUALITY and LAND USE



THE PRESIDENT'S WATER POLLUTION CONTROL ADVISORY BOARD

and

THE PRESIDENT'S AIR QUALITY ADVISORY BOARD

Environmental Protection Agency

Washington, D. C. 20460

The RELATIONSHIP between ENVIRONMENTAL QUALITY and LAND USE

A Report to the Administrator of the
Environmental Protection Agency of
recent meetings held by the President's
Water Pollution Control Advisory Board
and the President's Air Quality Advisory
Board.

March 27-31, 1972

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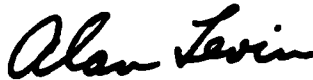
June 22, 1972

Dear Mr. Administrator:

I have the honor to transmit to you the report of the joint meeting held by the President's Air Quality Advisory Board and the President's Water Pollution Control Advisory Board on March 27-31, 1972.

As you know, the Boards met in joint session for the first time to study the relationship between land use planning and control and environmental protection. Included as an appendix to this report are the recommendations to you developed by the two Boards. They resulted following presentations by knowledgeable individuals in land use representing a cross section of the nation. In addition, the Boards' findings are also based on information presented by Federal agencies and an air tour which allowed the Boards to view first hand some of the complex problems connected with land use.

Respectfully submitted,

A handwritten signature in cursive script that reads "Alan Levin".

Alan Levin, Executive Secretary
President's Air and Water Advisory
Boards

INTRODUCTION

The President's Water Pollution Control Advisory Board is a statutory body, established under the Federal Water Pollution Control Act of 1956. There are nine members, appointed by the President, who serve three years each. The Secretary of Health, Education and Welfare is an ex officio member. The President's Air Quality Advisory Board is a statutory body authorized under the Clean Air Act, as amended in 1967. There are fifteen members, appointed by the President, who serve three years each.

The Chairman of both Boards is the Administrator of the Environmental Protection Agency. The mission of both Boards provided by law is to advise, consult with and make recommendations to the Administrator, and, in the case of the Air Board, to the President when deemed necessary, on matters of policy relating to the activities and functions of the Administrator under the Federal Water Pollution Control Act and the Clean Air Act. Under these authorities the Boards regularly examine all phases of the national water and air pollution problem and from time to time hold public meetings to hear the views of individual citizens, Government at its various levels, and private agencies and groups. Such meetings may be separate with each Board meeting individually or joint meetings involving both Boards depending on the desires of the Chairman and Board members, and issues to be studied.

The Advisory Boards hold three to five meetings a year each. Usually one or two of these are held in Washington, D. C. for the purpose of reviewing water or air plans, policy and progress with the EPA Administrator. The other meetings are held in various regions of the country at the call of the Chairman, or at the request of individual Board members or a State governor. The regional meetings, because they are open to the public, focus attention on particular city, State or regional problems and stimulate action for pollution control in problem areas under review.

MONDAY, MARCH 27, 1972, SAN FRANCISCO, CALIFORNIA:

The first joint meeting ever held by the President's Air Quality Advisory Board and the President's Water Pollution Control Advisory Board was convened by Mr. A. James, Barnes, Assistant to the Administrator, Environmental Protection Agency, who served as Chairman in the absence of Administrator William D. Ruckelshaus.

Air Board members present: Mr. W. Donham Crawford, New York, New York; Dr. Coleman D. Donaldson, Princeton, New Jersey; Mrs. Sibyl C. Hamilton, Dallas, Texas; Mr. E. Joseph Hillings, Washington, D. C.; Professor Matthew Holden, Jr., Madison, Wisconsin; Mr. Thomas L. Kimball, Washington, D. C.; Mr. Joseph Kovago, Atlantic City, New Jersey; Dr. E. Alan Lohse, Galveston, Texas; Mr. A. Mitchell McConnell, Jr., Louisville, Kentucky; Mr. Homer E. Patton, Kansas City, Kansas; Mr. Joseph K. Prince, Chicago, Illinois; and Mr. G. Don Sullivan, Washington, D. C. Not present were: Dr. Arnold O. Beckman, Fullerton, California; Mr. William D. Evers, San Francisco, California; and Mr. Jack B. Olson, Wisconsin Dells, Wisconsin.

Water Board members present: Dr. Melbourne R. Carriker, Woods Hole, Massachusetts; Mr. William D. Farr, Greeley, Colorado; Mr. Ray W. Ferguson, Ontario, California; Dr. Wallace W. Harvey, Jr., Manteo, North Carolina; Mr. Byron P. Jordan, New Orleans, Louisiana; Mr. Irvan F. Mendenhall, Los Angeles, California; Mrs. Samuel Rome, River Forest, Illinois. Not present were: Mr. Thomas W. Gleason, New York, New York; and Mr. Parker E. Miller, N. Redington Beach, Florida.

After providing background information and the statutory requirements of the two Boards, Mr. Barnes introduced the Board members. He then briefly set the tone for the meeting on land use by explaining that at first EPA took a rather narrow view of its role, i.e., to control air, water and other pollution. However, EPA became increasingly aware of the importance of relating the overall environment to land use. The objectives of the joint meeting is exploratory in nature and to assist the Boards in obtaining a better understanding of these relationships, Mr. Barnes pointed out. He also outlined some of the issues the Boards might be considering during their deliberations, as follows:

1. What should EPA be doing on its own?
2. What should EPA be doing in coordination with other agencies?
3. Need for Legislation.
4. Need for further study.

Following Mr. Barnes' opening remarks, Mr. Dwain Winters and Mr. William Day of the National Youth Advisory Board (YAB) presented a series of slides and a description on consumptive land use in the North Central United States which pointed toward corrective policies and solutions. The Youth Advisory Board is the successor to the Student Council on Pollution and the Environment (SCOPE) which had been created by the Department of the Interior in 1969. The project described by Messrs. Winters and Day was conceived under the SCOPE program and executed with the assistance of EPA Region VII in Kansas City, Missouri.

After the slide presentation, Mr. Lance King of the Youth Advisory Board discussed some of its present and future activities with regard to land use. He explained that the EPA Administrator had assigned to the YAB the task of looking into the multiple interlocking problem of land management from the standpoint of how they affect EPA's existing responsibilities. Mr. King told the two Boards that the YAB had developed a timetable for the project and will endeavor to study the various institutional and legal mechanisms controlling land use and governmental activities having land use implications. The YAB hopes to issue a preliminary report to the Administrator by June 1, 1972.

Mr. Paul DeFalco, Jr., Regional Administrator, EPA Region IX, the host region for the joint meeting, introduced Miss Susan Durbin from the Region's Office of Air and Water Programs who discussed how the role of technology and pursuit of increased production has in some cases caused abuse of land and depletion of our natural resources. She suggested that technology cannot cure all ills and that perhaps major life style changes are needed. Miss Durbin also emphasized that traditionally land use has been a local matter and that as a result, decisions are often made in small increments without full realization by local decision makers of possible unfavorable ramifications of such decisions. Finally, Miss Durbin discussed the Federal and State roles. She pointed out that by their nature such governments attack problems piecemeal, are single purpose and often in conflict. As an example she cited the plethora of fund sources available from the States and Federal governments some of which fight pollution which in turn stimulates growth and lacking controls, may end up polluting more than before. Miss Durbin concluded with the view that somehow, all the various programs and monies have to be coordinated so that land use controls become a more lasting way to conserve environmental values.

The final speaker from EPA Region IX was Mr. John Wise who presented aerial photographs and conducted a pre-tour briefing prior to a fly-over for the Boards to view first hand some of the problems connected with land use control. Mr. Wise told the Boards that the critical

factors of the overflight would be: (1) preemption of land use, i.e., suburban homes, second home sites, etc., (2) introduction of people and autos, and (3) water resources development as it relates to the agricultural industry.

In the afternoon, the Boards departed by aircraft on a 1400 mile flyover which included the Bay Area, Sacramento Delta, foothills, Lake Tahoe, valleys, desert, Los Angeles and the coastline. Guides for the tour were Mr. Wise and Dr. J. Herbert Snyder, Professor of Agricultural Economics, University of California at Davis. Some of the observations from the flyover included: San Jose obscured by smog; scarring of the land to accommodate housing and resulting in soil erosion and sedimentation; forested land cut up by roads; 400,000 acres of delta country, long valuable as an agricultural area, getting into recreation uses and marina developments; the traversing of virgin land by the California Aqueduct and a new interstate highway; problems resulting from disposal of brine and other waste products from oil field drilling operations; housing developments in the desert all competing for a limited water supply, air pollution in the Los Angeles Basin; and overpumping of ground water creating a serious problem in the Santa Clara River Valley.

The Boards were able to observe readily that it was virtually impossible to view anything not affected by development.

TUESDAY AND WEDNESDAY, MARCH 28-29, 1972:

On Tuesday and Wednesday, March 28-29, 1972, the Boards held public meetings in San Francisco and Los Angeles respectively. The participants included invited speakers with expertise in land use as related to the environment who presented statements before the Boards.

Tuesday's meeting was opened by Chairman William D. Ruckelshaus who introduced the Board members and swore in the following new members of the Air Quality Advisory Board: Mrs. Sibyl C. Hamilton, Dr. E. Alan Lohse, Professor Matthew Holden, Jr., Mr. A. Mitchell McConnell, Jr., Mr. Homer E. Patton, Dr. Coleman D. Donaldson, and Mr. Joseph K. Prince.

Chairman Ruckelshaus then made a brief opening statement wherein he emphasized to the Boards and the public that the nation must recognize the relationship between land use and air and water. He pointed out that every time an action is taken to control air and water pollution it has a great impact on land use. Chairman Ruckelshaus concluded by stating that the meeting of the Boards was exploratory in nature and he expected them to reach broad conclusions.

Because of the considerable number of statements presented, it has not been possible to include summaries of all of them in this report. However, following are highlights from a selected number. A full list of speakers and their organizations is attached to this report as Appendix 1.

Mrs. Rebecca Hanmer Nerenberg, U. S. Environmental Protection Agency

Mrs. Nerenberg noted that EPA is charged with pollution control in six areas - water, air, solid wastes, pesticides, radiation and noise, but that all of these areas relate to broader questions of land use, environmental quality, and natural resources utilization. She emphasized that stoppage of one kind of environmental pollution might invite other types unless safeguards are established. She stated that EPA has become increasingly aware that ecologically sound land planning and management are vital to implementing pollution control mandates and the agency will not be able to perform its mission fully without attacking questions of economic and social growth, and urban-industrial development. In many cases, she said there are not effective technological solutions to pollution problems and land-use controls are the best alternative.

Mrs. Nerenberg suggested that the answer was not in waiting for new institutions but in changing existing ones so that various agencies look at actions within a total environmental context. She expressed optimism that this can be accomplished under the National Environmental Policy Act, which provides an environmental mandate to all Federal agencies and a means of coordinating a wide variety of views. She pointed out that legislation also is pending in Congress to provide money to the States for land use planning, along with uniform Federal standards that the States would be required to observe.

Mr. Martin Convisser, Director, Office of Environmental Quality,
U. S. Department of Transportation, Washington, D. C.

Mr. Convisser opened by stating that transportation significantly impacts the environment directly, and indirectly as a result of its equally important effects on land use. He explained that despite the pervasiveness of the existing transportation network, each new addition can have a powerful influence on the location and shape of economic activity and land use, particularly where there are complementary forces at work. He cited urban areas where the impetus to growth is strongest and the example of development adjacent to the beltways that have been built around most major cities within the past 15 years.

Mr. Convisser summarized some of the Federal transportation legislation:

- (1) Section 134 of the Federal-Air Highway Act of 1962 required, as a pre-requisite for Federal highway construction grants, the development and utilization of a comprehensive transportation planning process in metropolitan areas tied into overall metropolitan planning. The current level of Federal highway planning grants for this purpose is approximately \$38 million annually.
- (2) The "Airways and Airports Development Act of 1970" authorized airport systems grants which enable a metropolitan area to look at total airport needs in relation to land use. This encourages more rational decisions on airport location to best suit the needs of the entire area.
- (3) Under the 1970 Urban Mass Transportation Assistance Act, environmental and land use considerations must be included in the Department's decision making process. Projects requiring UMTA grants or loans under the Act must be consistent with the official plans for the comprehensive development of the urban area.

In assessing how well these statutory provisions have worked, particularly the Section 134 process, Mr. Convisser pointed out that Section 134 has stimulated a great deal of useful transportation and land use planning in metropolitan areas; however, in practice, transportation planning and implementation have often been the driving force to development, and broader community land use goals have not always been clearly articulated or made operational. He explained that in large part this is due to the fact that there is rarely a single governmental agency, or even a single body politic within a metropolitan area, which has the authority to implement community land use goals for the area. Conversely, there is at least one transportation agency operating in each metropolitan area which generally has adequate authority, geographic scale and funding to undertake planning and implement its plans. With the increased funding provided by the 1970 mass transportation legislation there is now a better opportunity for urban areas to plan for and implement the transportation system best suited to their development and land use goals. Nevertheless, the absence of metropolitan institutions with the authority to comprehensively plan and implement policies and programs for development and land use at the metropolitan scale remains a serious obstacle.

Mr. Convisser expressed his support for the President's proposed Land Use Act and indicated that another approach would be through the development of a National Growth Policy which would seek to exert an influence on the shape of national growth and land use even more positively than could be accomplished through the proposed Land Use Bill.

Mr. Convisser discussed some of the other programs of DOT with respect to land use and told the Boards that even before the National Environmental Policy Act, the Secretary had stopped a major transportation project in large part because of land use considerations and the effects on the environment, i.e., the South Florida Jetport. DOT is trying to prevent such future controversies by (1) introducing land use and other environmental considerations at the earliest possible stage and (2) providing an orderly process of interagency coordination and public comment.

Mr. Convisser then turned to some of the air and water quality activities of DOT. He emphasized that the Department has been working closely with EPA in reviewing transportation implications of State implementation plans to achieve ambient air quality standards. The Department also has research underway specifically related to emissions and is exploring costs and other issues associated with mass production of advanced automotive propulsion systems for private autos should they become necessary. With respect to water quality, Mr. Convisser concluded by stating that the Coast Guard is aggressively enforcing appropriate sections of the Federal Water Pollution Control Act in the marine environment. It has an action program underway to prevent oil spills and is conducting research toward controlling spills.

Mr. Robert H. Kirby, Director of State Planning and Community Affairs,
State of Virginia:

Mr. Kirby represented Governor Linwood Holton of Virginia and spoke from the standpoint of a chief executive with experience in land use planning and regulations as they relate to programs of environmental protection.

Mr. Kirby emphasized that we must concern ourselves with the totality of man's environment - pollution, ecology, population and the urban environment, thus the importance of planning for the use of land resources. He told the Boards that the States are re-evaluating their positions on growth and development. The concern is with how land is used, the impact on the environment and the effect on the social and economic characteristics of citizens. This new emphasis raises many questions for the Governor and the State, Mr. Kirby continued. Some of the questions include:

- (1) Is a policy of unlimited growth and development one that should be considered in light of the possible conflict with the environment?
- (2) Should the State seek to limit growth and development ultimately identifying areas or corridors in which to concentrate development? To what degree would this reduce the damage to the environment?

- (3) Would a policy of limited growth mean an **emphasis** on medium size cities as opposed to larger or smaller cities? Does it mean that new towns will be encouraged? Is this choice politically feasible assuming it is environmentally sound?

Mr. Kirby explained that in the past it has been local governments who have made decisions on land use, on zoning and subdivision control. With recognition that some problems transcend the jurisdictional boundaries of cities and counties there has been a shift in recent years to planning at the regional level. Even more recently, there has been a greater emphasis placed upon the State itself as a mechanism for guiding and controlling land use. Some 9 or 10 States have instituted some means of control.

Mr. Kirby proceeded to discuss some of Virginia's problems, i.e. a dynamic shift away from agricultural uses and towards urban development. This growth and change in land use has put tremendous pressures upon the local governments to provide the services demanded of them. However, through a common partnership, the State and its local governments have begun to rectify past mistakes. Since 1968, emphasis has been placed on the promotion of regional planning. Legislation was recently passed calling for protection of Virginia's wetlands through a system of local and State controls. Local zoning boards will review and rule upon applications for use of wetlands. The question that will confront the Governor in the coming months is whether or not the State should concern itself with the implementation of a State-wide zoning ordinance to protect critical environmental areas. He suggested that one method of protecting and preserving such areas is outright purchase by the State.

In protecting such areas, one means that appeals to the State is a tax to recapture any increase in value associated with the development of public facilities in or near such areas. Mr. Kirby mentioned a final point on land use controls. In the near future, the State will begin to explore the relationships between State spending and development in the commonwealth. Their objective is to develop a series of policies or strategies for development, similar in concept to an urban growth strategy. Through these policies the expenditure of State funds will be related to clearly defined State goals.

Mr. Kirby concluded his statements by discussing some of the Federal requirements. In particular, he emphasized the importance of environmental impact statements, but indicated that completing such statements are staggering in terms of manpower and financial resources if one is to do a good job. Further, the State supports legislative initiatives from Congress and the Administration on land use and coastal zone management. However, Mr. Kirby stated some of these initiatives may place too stringent requirements on the States in the development of their plans and programs. He encouraged latitude and flexibility. He also feels that the President's proposals for

reductions in Federal funds if the States do not establish an acceptable land use program may be too harsh. Mr. Kirby would like to see more positive means explored to encourage land use planning and more research undertaken on the complex interrelationships between the social, economic and physical use of the environment. In the discussion that followed Mr. Kirby's statement, he emphasized that the States be charged with the major responsibility for enforcing wetlands legislation and not have it come from the Federal government.

Mr. Michael McCloskey, Executive Director, Sierra Club, San Francisco, California:

Mr. McCloskey emphasized that land use controls are essential if we are to reach our goals for pollution control, and he hopes that EPA finds some way to assure that land use controls complement its mission.

In comparing land use controls with pollution controls he pointed out that adverse land-use decisions are not nearly as reversible as adverse pollution decisions. There is another problem in comparing the two areas, Mr. McCloskey told the Boards. That is, conservationists have traditionally felt that local jurisdictions were hopeless and have looked toward escalating the level of decision making. However, he believes that as we escalate the level of decision making, the sharper grasp of land planning realities begins to shift away and the planning exercise becomes one of paper shuffling. The one answer that appears to offer some promise is that of regionalism, and he cited the positive aspects of the California Bay Area Conservation and Development Commission. Mr. McCloskey said environmentalists are advocating the same approach for the California coastline, and that this may be a formula which will work throughout the country.

Mr. McCloskey turned to the question of locating subdivisions, housing, i.e. where do you put people? Mr. McCloskey feels that we will have to change our premises on the question. One approach, he believes, would be population stabilization. Another changed goal he suggested is getting away from transients as a feature of our society, and build more permanently. He agrees with the report of the President's population committee that if people are to be relocated, we try to concentrate in the medium-sized cities.

Mr. McCloskey turned to the types of specific proposals, environmentalists are supporting in the area of land use. In the field of private land use, they are supporting those bills that would provide incentives to the States to reassume the land use planning functions which have been delegated to the counties. They also support coastal legislation as well as national land use planning legislation, but they do not feel pending bills are strong enough. In the area of private activity, environmental organizations such as the Sierra Club feel that the power plant siting bills now pending before Congress are too weak. With regard to strip mining, Mr. McCloskey sees the same problem, that is the Administration's bills would

encourage the States to do the job. He pointed out that the States have not done the job and that environmentalists want the abolition of strip mining. With regard to public land reform there is a need for a revised act for the Bureau of Land Management; mining law reform is another crucial area, Mr. McCloskey stated.

Turning to the program of Federal land acquisitions, organizations such as the Sierra Club have worked over the years to increase the funding for this program, but the subtle process of erosion has occurred in recent years to reduce the share for Federal land acquisition. He also discussed some of the current controversies in the area of Federal land management, e.g. the amount of grazing that ought to be permitted.

Finally, Mr. McCloskey mentioned the Federal developmental programs for land use. He is encouraged by DOT's support of a proposal for widening the Highway Trust Fund; he feels this will be most helpful in urban areas by shifting the emphasis from freeways to mass transit. Environmentalists have problems with other types of Federal developmental projects, such as water projects, the Atomic Energy Commission, etc.

In summarization, McCloskey stated that while generally environmental organizations have had greater faith in the Federal government's responsiveness, they would welcome a greater responsiveness in the area of land use at the State and local levels.

Mr. Ralph Sargent, Jr., Vice President, Public Affairs, Public Service Company of Colorado, Denver, Colorado:

Mr. Sargent spoke from the viewpoint of power plant siting and other land uses as possible or potential sources of environmental pollution.

Mr. Sargent stated that the electric utility industry has two general types of environmental impact, one positive and one negative. On the positive side, the industry provides its customers with energy in a form which is clean, quiet and flexible at the point of use. On the negative side, the process of providing electricity impacts on air quality, water quality and land. He pointed out that as a nation, we have developed a general approach to regulating impacts of industry on air and water, but that land use problems are different. That is, we depend on local governmental units, operating under a zoning philosophy codified in the 1920s to carry out land use policies. Mr. Sargent feels there is a sound ecological basis for this localized approach, for our knowledge of land problems is so limited that we have dealt with them on a case by case, site by site basis. The difficulty with this approach in today's world, Mr. Sargent told the Boards, is exemplified by the problems facing the electric utility

industry in gaining acceptance for locations needed to provide service to customers. Particularly, in the more densely populated areas of the country, it has become more and more difficult to build power plants or other kinds of facilities which society as a whole requires. Mr. Sargent emphasized that our present means for making land use decisions are not helpful since they allow those who oppose a particular facility, whatever the merits of the proposal from an overall viewpoint, virtually to stop it. He stated his attitude and many of his colleagues is that, as a society, we must develop better means for making and implementing land use decisions.

He indicated that some utility companies have experimented with open planning, in which governmental bodies and citizens' organizations are brought into the site planning process. In most cases it is still too early to judge their effectiveness, but Mr. Sargent encourages this type of experimentation.

Mr. Sargent discussed pending legislation and recommended that any national land use policy should provide that basic land use decisions not be made by the Federal government, but at the State or regional level. It also seems essential, Mr. Sargent asserted, that a land use policy be comprehensive, not focused on a single element such as coastal zones or power plant siting. He concluded with an opinion that several of the bills before the Congress seem to fulfill these requirements and he looks forward to observing the discussion and testing they will face as they move through the legislative process.

Mr. Thomas Bradley, City Councilman, Los Angeles, California:

Mr. Bradley discussed the critical failure of the balkanized approach to land use decisions made by local government officials and the failure on too many occasions to face up to the consequences of those decisions. He stressed that too often those decisions have been shaped by undue pressure and influence by local interest groups, but more often by land developers and special interests promoting their economic best interest. However, he pointed out that bringing State government into such decision making would not automatically improve their quality. The integrity of the elected official at whatever level is the important point Mr. Bradley said.

Mr. Bradley endorsed the concept of a national growth and development policy and this policy must fit into others adopted by State, regional and local governmental units. A strong policy statement by the State taking an overview into the future is essential in developing a viable growth and development policy for environmental goals, he told the Boards.

Mr. Bradley cited California as presenting some of the best or worst examples of land use development where the decisions were made, not by city planners or elected officials, but were dictated by developers, highway construction advocates and other narrow and special interest groups. Some of these decisions have drained industrial wealth and resources from the inner cities to the suburbs. In short, Mr. Bradley pointed out the jobs are moving beyond the geographic reach of those who need them most. The pattern of flight and abandonment of the central cities by business and industry produces a domino effect as the people, the jobs, the shopping centers and other activities begin to fail.

With regard to pollution problems, Mr. Bradley emphasized that the city of Los Angeles has been required to strip the land of its coal and pollute the air as they have burned it to produce the electrical power to supply the urbanized demands of the city. A shortage of pure water is also predicted for the year 2000 as the State runs out of natural waters. His comments, Mr. Bradley stated, are the reflection of the growing belief that urban growth cannot take a desirable form when shaped by conflicting regulations of a host of local governments and by the unregulated locational decisions of private enterprise. Mr. Bradley stressed that if we continued to leave our patterns of urbanization to chance, we shall invite environmental, economic and social chaos.

Mr. Bradley continued by emphasizing that many of the problems can be dealt with more effectively on a regional basis, but whenever this issue is raised the cry of home rule is heard. He believes it is still possible to protect the virtues of home rule and at the same time assign to regional bodies the responsibility to deal with those problems which are strictly regional in nature. Mr. Bradley said that unless cities fulfill their responsibilities in dealing with land use problems, they will find themselves preempted by State government. Local elected officials should have a major role in the development of State plans that deal with land use planning. Mr. Bradley outlined a number of recommendations:

- (1) A policy pertaining to the growth and distribution of population within the State with the purpose of avoiding excessive congestion and dispersing the population throughout all the land is needed.
- (2) Public facilities such as water systems, open space, sewers and highways should be used as tools to implement an urban development policy.
- (3) The effective use of regional councils of governments is essential in bringing together a comprehensive approach to solving multi-jurisdictional problems.

- (4) Consideration for the impact upon central cities must be uppermost in the minds of policy decision makers so as to avoid drawing off productive enterprise from the core city and separating the citizens from their job sites.
- (5) Tax inducements, assessment procedures depreciation schedules should be designed to encourage upgrading of inner city plants and sites rather than their abandonment.
- (6) Land bank programs in which local jurisdictions acquire large parcels of property, plan and then sell them to developers at their enhanced value would do much to discourage land speculation and would help in an orderly development.
- (7) Only through the inducement of massive Federal dollars and reasonable conditions attached to those allocations can local government be prodded into doing the job.

Mr. Bradley concluded his remarks by stating that the examples of failures are limitless, but the possibilities for the future are great. Although at one time the attraction of the cities was the desire to live a good life, they are increasingly raising the question about a decent survival. Mr. Bradley believes that we can and must change our ways of living and devise new priorities if we are to secure the future.

Mr. Robert T. Jorvig, Executive Director, Metropolitan Council of the Twin Cities Area, St. Paul, Minnesota:

Mr. Jorvig spoke on land use as it relates to environmental protection from the standpoint of regional government.

He explained that in Minnesota and the Twin Cities Metropolitan Area a unique regional structure of government has been established which offers an opportunity to develop a metropolitan wide land use and growth policy with substantial tools to translate these policies into development action. Mr. Jorvig outlined a few issues the Council has been considering with the hope that they would be helpful to the Boards in developing recommendations:

- (1) Governmental Structures - The Council is a unique form of local government established to coordinate the overall social, physical, and economic development of the Twin Cities Metropolitan Area. It is not a general purpose government, nor is it an operating regional agency. Rather, it is an administrative agency with powers to provide for the overall planning

and development of regional needs and services of the Seven County Metropolitan Area and with sufficient authority in some areas, such as sewers, to assure that the functional agencies responsible for operations carry out the general plans developed by the Council.

- (2) Development of Growth Policy-Regional Council Role - The merging of environmental concerns with land development process requires the establishment of an urban growth policy at the national, State, and local level. A growth policy can be approached in two ways: build it from the top down, that is, from the Federal-to the State-to the local level; or using an appropriate local unit, proceed building-block fashion to the State, and then the Federal level. Both approaches are useful and both need to be done if we are to achieve the best use and most equitable distribution of the scarce resources available to us as a nation; State, region, or locale. Using the metropolitan or regional framework, Mr. Jorvig stated some of the criteria if we are to apply land-use planning and control.
- (a) Know the area-physically, socially, economically, and environmentally.
 - (b) Forecast and project the area's growth and makeup.
 - (c) Develop a set of indices to judge the capability of the metropolitan area to sustain the projected growth.
- (3) Fiscal Disparities - An essential pre-requisite to the effective implementation of any land use and environmental control program is the resolution of fiscal disparities problems among local governmental units and the development of a region-wide fiscal capability to carry out a region-wide capital improvements program. The heavy reliance on the real estate tax places all governmental units in competition for development, which adversely affects the capability of governmental units at all levels to make sound development and environmental decisions. The Metropolitan Council addressed itself to this problem as an early priority in its planning programs. This effort was supported by both governmental and citizens organizations and by the Citizens League in the area. The Legislature, in turn, supported a unique approach to begin to resolve this problem through the passage of the Fiscal Disparities Bill in 1971. The Legislation provides for a metropolitan-wide sharing of a portion of all of

the future commercial and industrial tax base within the seven county area. Forty per cent of the tax base of all such new development is placed into a metropolitan pool and then redistributed to all governmental units based on a ratio of per capita need in relation to per capita assessed valuation. Sixty per cent of such tax base is retained by the individual communities to support community service requirements for such development. As a result of this legislation, there has already been some indication of communities making development decisions based on the best land use considerations, rather than economic considerations.

- (4) Policy Implementation Tools - In spite of substantial regional authority for policy formulation and implementation for transportation, parks, utilities, etc., projections for the Twin Cities Area indicate substantial continuation of urban sprawl. This raises questions as to the need for substantial land development controls at the regional level. Such controls have traditionally been resisted, and have usually been exercised at the municipal level. Therefore, the Council does not see these problems resolved through the establishment of comprehensive development controls at the regional level. Rather, they see it happening through limited extension of control of regional support services and through the provision of incentives to both local government and the private developer.

In conclusion, Mr. Jorvig stated that the Council is still struggling with the same issues the Boards are addressing and he hoped the strategies the Council is pursuing will be of some help in the Boards' deliberations. He urged that the several Federal departments make every effort to standardize their program requirements and provide consistent long range funding commitments (3-5 years). Mr. Jorvig indicated that multiple standards and changes in program practices make it extremely difficult to accomplish the kind of required program coordination he has suggested.

Mr. Alan M. Voorhees, Alan M. Voorhees and Associates, Inc.,
McLean, Virginia:

Mr. Voorhees spoke from the standpoint of land use and transportation planning and control as related to environmental quality.

Mr. Voorhees opened his remarks by stating that because pollution of air, water, and other environmental resources must be attacked on a broad and comprehensive basis there is a strong requirement for land use and transportation planning to assure that this goal is effectively

met. The primary methods for assaulting the pollution problem today are through the implementation of direct controls at the source, through improvements in operating techniques, and through developments in technology. There has long been a need, Mr. Voorhees continued, for interrelating the land use and transportation planning process with the legal enforcement procedures for protecting air and water resources. Planning literature and academic planners have advocated this approach but lack of knowledge and enforcement procedures for environmental planning have precluded effective action. Mr. Voorhees then discussed some of the broad techniques which can presently be applied and could lead to significant improvements to air and water quality over the next few years, as follows:

- (1) Land Development and Density Patterns.
- (2) Spatial arrangement and location of building and site activities.
- (3) Planning of Transportation Systems.
- (4) Design of Facilities.
- (5) Operation of Facilities.

Mr. Voorhees also discussed a number of factors which must be considered to improve air and water quality, as follows:

- (1) Institutional.
- (2) Legal.
- (3) Financial.
- (4) Administrative.
- (5) Technical.

All of these interact in the planning process, and are required to effectuate an implementation program.

He stated that the planning process must reflect:

- (1) Unique environmental problems of the area.
- (2) Environmental impacts at the initial stage.
- (3) Input from other agencies and environmental groups.

- (4) The trade-offs of the benefits and costs of all elements in the plan.
- (5) Continuous communication with area leadership.
- (6) Interdisciplinary staffing.

Mr. Voorhees concluded by stating that the public cannot always understand inaction, particularly as related to environmental matters. It has to be demonstrated that the technological, social, and political sectors can work together effectively, and that implementation of plans need not be constrained by institutional problems. He suggested some specific ways in which land use and transportation controls can be made effective:

- (1) There is a willingness of professionals to cooperate in developing land use and transportation plans which include air and water quality effects, but there is a lack of knowledge in many areas. Planners need help in learning how to include these factors in the planning process. This kind of assistance will increase their proficiency, and thus their contribution to environmental quality.
- (2) To improve action at all levels of government there should be a mechanism to smooth the way in setting up proper relationships among the various institutional, legal, financial, and organizational, elements. Planners and other professionals should not have to determine trade-offs among these elements, but should have clear direction toward accomplishing air and water quality goals.
- (3) There is a continuing need for financial assistance or inducements, to encourage the inclusion of environmental considerations in the planning and implementation processes, such as in some of the existing and proposed water quality programs. There is a need for further research funds to help develop quantitative measures for air and water quality planning.

Mr. Robert A. Horton, Director, Administrative Analysis Division,
Office of the Mayor, Nashville-Davidson County, Tennessee:

Mr. Horton spoke to the Boards on land use planning and control as an aid to environmental protection from a local viewpoint.

Mr. Horton stated that the preservation and rehabilitation of our urban environment requires that all land use planning include,

environmental planning. The questions he raised are How, By whom, and When? He indicated that by whom must be a Federal, State, local team. The question of when must be now, and for the rest of this century. The how to accomplish an interface between land use and environmental planning is a complex problem which we must resolve if we are to balance environmental and economic interests within the world of political reality.

Mr. Horton explained that he helped produce a successful charter for a consolidated city-county government of the Metropolitan Government of Nashville-Davidson County, Tennessee which operates successfully under a strong mayor. On the national level, he pointed out that he has seen promises of performance outstrip capacities or willingness to fund programs. He further suggested that in order to improve performance of our governmental system, we need improved governmental structures that will define the appropriate roles of Federal, State, and local government which must plan, program, and serve areas and regions within the United States that vary in their state of technological development from the 1890s until almost 1984 in some areas. In Mr. Horton's opinion, most States have failed to recognize the changes that have occurred in America during the past 100 years. They have an anti-urban bias, and it is the State's laws that have created the chaotic patchwork of duplicating and ineffective jurisdictions found in many metropolitan areas throughout the country. He feels States must improve their general legislation and provide opportunities for strengthening units of local government that have the area of jurisdiction necessary to perform regional services, particularly those regional services that have a direct impact on environmental planning and management.

In the area of pollution, he believes pollution and polluters come in three different categories:

- (1) Fixed location pollution generation.
- (2) Mobile pollution and polluters.
- (3) Footloose pollution and polluters.

Rural and urban land and land uses are affected by all three categories. Many public and private decisions have tremendous environmental impacts that are unintended or unanticipated. In this regard, Mr. Horton told the Boards few people recognize the complexity of the environmental problem, the lead time necessary to accomplish results in many areas, or the costs if we are to clean up and preserve and rehabilitate many areas that have suffered environmental degradation during the last century.

Mr. Horton then enumerated some of the successes of the consolidated Nashville-Davidson County single unit of government, e.g. an overall plan for sewers, a system wherein they will incinerate garbage, and

heat and air condition a major portion of the central business district, extensive urban renewal and revitalization in downtown Nashville, etc. Mr. Horton feels it is absolutely necessary to plan and manage a balance between ecology and economics in order to manage environmental protection within bounds of economic realities presently constraining these endeavors across the country. He believes it is essential that we devise every way possible to interface land use decision making with environmental planning and regulation. He continued that we need to define more clearly the roles of Federal, State, and local governmental agencies in this process. Finally, Mr. Horton expressed satisfaction that the Boards were holding hearings and urged additional hearings in various areas where the intensity and complexity of the mix of issues may require recognition of where the area is, and its economic growth potential as policies and regulations are established.

In summarizing the two days of hearings in San Francisco and Los Angeles, Chairman Ruckelshaus emphasized that the overriding theme of the testimonies has been the need for institutional reform, but the nature of that reform and where it takes place is open to a great deal of dispute. He also indicated that in his opinion there is no level of government which is adequately addressing the complexity of the problem of land use and relating it to all of the other social and environmental concerns that we have as a nation. Chairman Ruckelshaus also urged that we try to use the institutions we now have in a more intelligent way. Two other issues stressed by the Chairman were the problem of population control and the need for attitudinal reform.

He concluded by stating that it is obvious that there are no panaceas for the problems presented, that the objective of the two days of hearings was to open up some ideas of the areas of concern and dispute, and that he was looking forward to the Boards' recommendations with the hope that the results will have benefits far beyond California and even the nation.

THURSDAY, MARCH 30, 1972:

Back in San Francisco, the Boards met in executive session, chaired by Mr. A. James Barnes, and developed their recommendations on the relationship between environmental quality and land use. These recommendations are attached as appendix 2.

FRIDAY, MARCH 31, 1972:

The Air and Water Boards held brief separate business meetings at which time, the Water Advisory Board adopted a resolution on ocean overwashes. (Appendix 3)

The Boards then held a press conference at the EPA regional office to present their recommendations.

Principal spokesmen at the press conference were Mr. Barnes, serving as chairman, Mr. Mendenhall representing the Water Advisory Board and Dr. Donaldson representing the Air Advisory Board.

Following the conference the joint meeting was adjourned at 11:30 a.m.

LIST OF INVITED SPEAKERS

SAN FRANCISCO

Mrs. Rebecca Nerenberg
Policy and Procedure Staff
Office of Federal Activities
Environmental Protection Agency
Washington, D. C.

Mr. Lance Marston, Director
Office of Regional Planning
Department of Interior
Washington, D. C.

Mr. Martin Convisser, Director
Office of Environmental Quality
Department of Transportation,
Washington, D. C.

Mr. Richard Broun, Director
Division of Environmental and
Land Use Planning
Department of Housing and Urban
Development
Washington, D. C.

Dr. Melvin L. Cotner, Director
Natural Resources Economics Division
Economics Research Service
Department of Agriculture
Washington, D. C.

Mr. Robert H. Kirby, Director
State Planning and Community Affairs
Richmond, Virginia

Mr. Michael McCloskey, Executive Director
Sierra Club
San Francisco, California

Mr. Ralph Sargent, Jr., Vice President
Public Affairs
Public Service Company of Colorado
Denver, Colorado

Mrs. Donald Clusen
Chairman, Environmental Quality Commission
League of Women Voters
Green Bay, Wisconsin

LOS ANGELES SPEAKERS

Mr. Thomas Bradley
City Councilman
Los Angeles, California

Mr. James Montague, Director
The Rouse Company
Columbia, Maryland

Mr. Glenn Claytor, Director
Urban Housing Development
National Urban League
New York, New York

Mr. Robert T. Jorvig, Executive Director
Metropolitan Council
St. Paul, Minnesota

Mr. Alan M. Voorhees
Alan M. Voorhees Association, Inc.
Westgate Research Park
McLean, Virginia

Mr. Robert Horton,
Fiscal Administrator Officer
Office of the Mayor
Nashville, Tennessee

Mr. Richard Heikka, Executive Officer
Tahoe Regional Planning Agency
South Lake Tahoe, California

STATEMENT ON THE RELATIONSHIP
BETWEEN ENVIRONMENTAL
QUALITY AND LAND USE

PRESIDENT'S WATER POLLUTION CONTROL ADVISORY BOARD
AND
PRESIDENT'S AIR QUALITY ADVISORY BOARD

ENVIRONMENTAL PROTECTION AGENCY

MARCH 31, 1972

INTRODUCTION

At the request of Mr. William D. Ruckelshaus, Administrator, Environmental Protection Agency, the first joint meeting of the President's Water Pollution Control Advisory Board and the President's Air Quality Advisory Board was arranged to encompass the entire week of March 27th in California. The two boards were asked to come together to explore the relationships between environmental quality and land use, the impacts of one on the other and to formulate recommendations to President Nixon and the Administrator of EPA on these general topics.

On Monday morning, the combined boards were provided an overview of the issues involved by the staff of EPA Region IX and other EPA representatives. That afternoon, airplane overflight inspections were made of pertinent conditions in the Bay area, at Lake Tahoe, of the Los Angeles metropolitan area and of many locations in between both over the inland and coastal portions of California.

All of Tuesday was devoted to testimony by resource witnesses at a hearing in San Francisco and Wednesday was utilized for similar hearings in Los Angeles. Testimony was received from government, private, educational, and consulting specialists. The two boards concentrated throughout Thursday on board findings and the development of recommendations.

The quality of our air and water resources, as well as other environmental elements, are vital to the quality of life styles to which all citizens aspire. It is amply clear that past use of many great land resources of the United States of America, local land use planning, absence of comprehensive and coordinated regional plans and many failures to implement well conceived plans have resulted in present conditions in our urban and rural environments which are now increasingly evaluated as contrary to public health and welfare and to maintenance of sufficient environmental quality for the general welfare of the nation. A more thorough and comprehensive approach to these vital issues must be developed and applied.

Following are findings and conclusions which result from the week's activities of the two Presidential Advisory Boards:

I. Relationship of Environmental Quality with Land Use Planning and Implementation.

The Boards find that there is a significant but complex and poorly understood relationship between land use decisions and environmental quality. Public and private activities and determinations as to the use that will be made of a given area of land can make it difficult for us to reach desirable or even acceptable levels of environmental quality either now or at any time in the foreseeable future. This situation will almost certainly continue to be true unless the implications on overall environmental quality are made an important factor in decisions as to uses of land.

Recommendations

The Boards believe that means should be developed to bridge the gap between current land use decision-making and the national efforts to enhance and protect our environment.

II. Attitudes Toward Land Use.

As a result of the deterioration of the environment in such areas as air, water, solid waste and noise and in view of the inherent relationship between these concerns and land use, there is a growing realization that a joint commitment by certain public and private interests recognizing land as a resource as well as a commodity, is required if we are to insure environmental enhancement.

Recommendations

The need to maintain proper land use requires a reappraisal of private and public land as a resource, as well as a commodity.

III. Coordination Of and Between Federal Agencies.

A number of Federal agencies have statutory responsibility and decisions which in certain cases may affect our ability to achieve environmental quality. Decisions on the management and use of Federal lands, on the issuance of Federal licenses or permits, or on the awarding of grants or contracts can have significant impacts on land use decisions affecting environmental quality. Although the National Environmental Policy Act, and court decisions interpreting that Act, have generally broadened the range of land use issues considered by Federal agencies in their decision making processes, it appears that in many cases these important decisions are made without sufficient interagency coordination. This can often result in inadequate consideration of environmental values affected by these decisions.

Recommendations

The Boards recommend that coordination be improved between Federal agencies making land use decisions, and other Federal agencies, especially the Environmental Protection Agency in its role as the Federal agency responsible for laws and standards in the area of air quality, water quality, solid waste management, and noise. One method of accomplishing these ends is through formal interagency agreements between Federal entities involved in environmental issues.

IV. Role of Federal-State-Regional-Local Government in Land Planning and Implementation.

With various notable exceptions, government organizations at all levels have not adequately developed and carried out comprehensive land use plans that properly protect the environment. The Boards have concluded that there is an inescapable relationship between land use and environmental quality that requires close cooperation, coordination, and assistance between governmental agencies at all levels.

Recommendations

The Boards recommend that the Federal government provide:

1. Land Use guidelines including attention to:
 - a. Environmental needs in the large, built-up metropolitan areas.
 - b. The differential costs and benefits for different sectors of the population.
 - c. Standards to guide State decision-making in an equitable treatment of those costs and benefits.
 - d. The implementation of effective controls.
2. Financial assistance to State and/or regional and local governments for developing and implementing comprehensive land use plans.
3. Sanctions applied to States unwilling to carry out effective land use programming.

The States should provide criteria as well as financial and technical assistance to regional and local governments in their land management efforts.

V. The Environmental Protection Agency's Role in Land Use Planning.

The Environmental Protection Agency has an important influence in determining how land is used by virtue of the standard setting process associated with the air and water pollution control legislation. Through the standard setting mechanism, environmental constraints are imposed upon land use. Consequently, States and local governments are affected as are Federal programs and actions.

Recommendations

1. That the Environmental Protection Agency move purposefully to improve coordination with other Federal agencies whose activities affect or are affected by air and water quality standards; provide more environmental planning guidance to Federal, State and local agencies together with close coordination and cooperation with local, regional and State land use planners and policy makers; and make full use of present authority to affect land use decisions with respect to all environmental quality.
2. That the Presidents' Air and Water Quality Advisory Boards continue to assess and evaluate the complex relationships between land use and overall environmental quality, and define the role of the Environmental Protection Agency with respect to present land use planning and future possible regional land use policy.

VI. Socio-Economic Considerations.

Speakers appearing before the Boards and discussions among the Board members evidenced general agreement that land use planning and control for environmental protection at Federal, State, and local levels should involve appropriate consideration of socio-economic policies as well as physical and technological measures. Some of these socio-economic policy factors as alternatives to the application of control technology are population movements, resource distribution and location of sources of pollution.

Recommendations

1. That Federal policies and programs on standard setting, grants, contracts, public works, regulation of and investments in Federally owned or controlled lands, and preparation and review of environmental impact statements require the consideration of the effects upon population concentration, distribution of resources such as inter-basin water diversions, energy production and distribution, transportation systems, and locations of industrial plants and employment opportunities.
2. That a socio-economic impact statement covering the above considerations be required as a companion to and equal in importance to present environmental impact statements. In this connection

the Federal agencies concerned should conduct studies of the cost-benefit advantages of such socio-economic planning and control devices as contrasted to the cost-effectiveness of the installation of "end of the pipe" control technology.

VII. Pending Legislation Concerning a National Land Use Policy.

The Boards recognize that several legislative proposals to establish a National Land Use Policy are presently under consideration by the Congress. While differing significantly in the manner in which they would accomplish their purposes, bills which are now receiving serious consideration generally reflect the view that although the primary responsibility for land use planning must be placed at the State level, the Federal government should exercise leadership in this area by providing funds to assist the States in their planning efforts, by establishing criteria to guide them in planning, and by invoking sanctions if necessary to ensure that these criteria are followed.

Recommendations

The Boards commend the President and the Administrator for their support of early enactment of legislation to establish a national land use policy. We believe it imperative that any such legislation be so structured as to require land use plans at all levels of government to be developed from the outset in a manner which will, as a minimum, ensure compliance with applicable environmental laws and standards, including air and water quality standards and implementation plans. In connection with such legislation, the Boards urge that consideration be given to means for direct support of land use planning by those large metropolitan areas that request such support providing that the requesting agencies can demonstrate an ability to work within general guidelines consistent with National Policies which are provided by the Federal government. If such legislation is enacted, we recommend that the Administrator make the resources of the Environmental Protection Agency available to States and local governments to assist in the formulation of land use plans to meet environmental objectives, and in the review of plans for consistency with applicable laws prior to Federal approval.

VIII. Information and Education.

The availability and exchange of valid information regarding the interaction of land use and environmental protection must be increased to land use planners and decision makers and the public at large. If the importance of environmental problems is not recognized, they cannot be adequately addressed.

A more informed public participating in both planning and political decisions, could raise the visibility of the issues and strengthen the prospects for implementation of land use decisions.

Recommendations

1. The importance of environmental considerations as a part of the planning process be brought to the attention of appropriate officials at all levels of government.
2. An information program be directed toward the general public.
3. Methods be developed that will aid the planner in quantifying the environmental impact of his plan.
4. Better institutional arrangements are needed for decision makers to participate in the planning process.

IX. Development of Required Scientific Knowledge.

A consistent theme running through the presentation of many witnesses that appeared before the Boards was the absolute necessity for the development of new knowledge in many fields if satisfactory land use and environmental planning is to be accomplished now and in the future.

Recommendations

The Boards recommend that the Federal government and in particular the Administrator of the Environmental Protection Agency take those steps necessary to assure the development of plans for and the funding necessary to obtain the new scientific knowledge required to determine strategies for dealing with the preservation of our environment.

RESOLUTION

OCEAN OVERWASHES

Whereas the State of North Carolina is aware of water pollution in the upper sounds of North Carolina, especially Currituck, Albemarle and Pamlico sounds, and that they are rapidly becoming eutrophic,

Whereas these sounds are rapidly losing their former natural characteristics,

Whereas ocean overwashes are natural physiographic features and natural safety ways for protection of the land, aquatic and human life,

Whereas these sounds continue to be principal and major nurseries for both fin and shellfish,

Whereas both private (land developers) and public (NPS and Fish and Wildlife) interests have altered the natural topography on the barrier lands of this region by dune alternation and closing of natural ocean overwashes,

Whereas such alternation has contributed to rapid deterioration of these bodies of water,

Whereas the President's Water Pollution Control Advisory Board recognizes the critical nature of this problem, therefore,

The President's Water Pollution Control Advisory Board meeting in San Francisco, California on March 31, 1972 recommends that the practice of closure of natural ocean overwashes into any estuarine bodies of water of the United States or its territories that support a fin and/or shellfish nursery be prohibited.