

PLANNING FOR NATURAL AND CULTURAL RESOURCES

*A Report of the Natural Resources
State Planning Advisory Committee*

November 1990

**State
Development**
AND
**Redevelopment
Plan**

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I OVERVIEW

A. Purpose/Membership

This is a report of findings and recommendations of the Natural Resources State Planning Advisory Committee concerning issues arising from the comparison phase of cross-acceptance of the Preliminary State Development and Redevelopment Plan (PSDRP).

The Natural Resources SPAC was organized by the Office of State Planning pursuant to a resolution by the State Planning Commission to contribute to the formulation of an effective State Development and Redevelopment Plan through a multi-disciplinary, structured dialogue on natural resource issues in the Plan. Comprised of individuals with varying backgrounds and wide expertise, this Committee represented a balance of interests.

The Committee convened on February 2, March 16, April 20, May 24, June 19, July 23, and October 23, 1990 in Morristown, New Brunswick, and Trenton to discuss issues of mutual concern to the Committee and the Office of State Planning. The Natural Resources SPAC identified the boundaries of debate and areas of consensus, and provided recommendations that were noted in summaries produced after each meeting.

It is intended that the findings and recommendations in this report be considered by the Office of State Planning and the State Planning Commission in the negotiation phase of cross-acceptance, and for the preparation of the Interim State Development and Redevelopment Plan (ISDRP). Additional reports will be forthcoming, following the second and third phases of the SPAC process.

Natural Resources State Planning Advisory
Committee Membership

The following are the members of the Committee who have generously contributed their time and efforts in order to produce this first report of the Natural Resources State Planning Advisory Committee:

Ann Auerbach
N. J. League of Women Voters

Michael Bolan
Banisch Associates

Mary Louise Blanchard
*Assoc. of N.J. Environmental
Commissions*

John Carlton
Car/ton Design

David Fisher
Leisure Technology, H.J. Division

Robert Flynn
Authorities Assoc. of H.J.

Steve George/Helen Heinrich
New Jersey Farm Bureau

William Goldfarb
Rutgers University

Robert Greenbaum
*Greenbaum, Rowe, Smith, Ravin, Davis
& Bergstein*

Roderick MacDougall
Cook College Board of Managers

James Miller
Homestead Ventures, Inc.

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H.J. Conservation Foundation

George Nieswand
Rutgers University

Herman Panacek, Jr.
H.J. State Board of Agriculture

Judith Schleicher
H.J. Federation of Planning Officials

G. Erwin Sheppard
Sheppard Farms, Inc.

James Sinclair
NJ. Business & Industry Association

James Truncer
*Monmouth County Board of
Recreation Commissioners*

In addition, Barbara Lawrence of the Regional Plan Association; Richard Sullivan of New Jersey First, Inc.; Herbert Simmens, former Administrator of Galloway Township and current member of the State Planning Commission; Mimi Gpmeyer and Abigail Fair of the Association of New Jersey Environmental Commissions; and Lawrence Schmidt of the Department of Environmental Protection provided valuable information and guidance to the Advisory Committee.

Members of the public that have contributed to the dialogue should also be acknowledged, especially Bob and Mary Owen, Monmouth County conservationists;

Christy Van Horn, New Jersey Future; Richard Gulick, Randolph Township; Jim Capasso, N.J. Concrete and Aggregate Association; Joseph Bush, Rutgers University; and Barbara Novick, Monmouth County League of Women Voters.

B. Planning Objective

The State Planning Act requires the State Development and Redevelopment Plan (SDRP) to contain provisions that:

- o Protect the natural resources and qualities of the State, including, but not limited to, agricultural development areas, fresh and saltwater wetlands, flood plains, stream corridors, aquifer recharge areas, steep slopes, areas of unique flora and fauna, and areas with scenic, historic, cultural and recreational values;
- o Coordinate planning activities and establish Statewide planning objectives for land use, housing, economic development, transportation, natural resource conservation, agriculture and farmland retention, recreation, urban and suburban redevelopment, historic preservation, public facilities and services, and intergovernmental coordination.

The PSDRP proposed statewide goals and associated objectives, including:

PSDRP Statewide Objective for Natural Resource Conservation

...to guide the location, types, and forms of development in ways which do not impair natural resources.

The Committee recommended a more specific objective for the SDRP:

Recommended SDRP Statewide Objective for Natural Resource Conservation

...to encourage and coordinate planning, development, and incentive and regulatory programs in a rational and reasonable manner that will accommodate the integrity, sustainability, enhancement and conservation of natural and cultural resources and the environment throughout New Jersey.

C. Capacity-Based Planning Approach

The Committee considered the "current planning capacity" approach developed at Rutgers University to be a sound conceptual basis for land use planning. The Rutgers approach provides planning tools to determine the ability of an area to accommodate development at a specific point in time, by measuring the capacity of existing and anticipated infrastructure and the constraints of natural resources.

The actual practice of capacity-based planning is still evolving. Attempts at capacity-based approaches have ranged from regional-scale planning to site-specific capacity determinations. Limitations in data and knowledge of the ability of various systems (natural, social, economic, infrastructure) to accommodate human activities have hindered application of capacity-based approaches. The capacity-based approach also assists land use decision making by explicitly allowing competing objectives to be considered and balanced, and complementary objectives to be identified

and advanced. For example, while capacities for public facilities and services may be readily determined, suitable base data and models that measure the ability of natural systems to accommodate development are not uniformly available. The Committee agreed that the capacity-based approach, therefore, has more value providing a framework for regional planning than it has specifying on-site development potential.

The framework for capacity-based planning considers four key categories in its capacity analyses: natural, infrastructural, economic, and social systems. Each system includes a number of factors. These factors can be expressed in both qualitative and quantitative forms. For example, these include but are not limited to:

Natural: air, water, land and ecosystems;

Infrastructural: transportation, sewage disposal, garbage disposal, water supply and schools;

Social: community character, cultural facilities, social, demographic, cultural, and historic characteristics;

Economic: fiscal (available revenues, authority to spend), financial (market needs and projections, private contributions to public facilities and services, and the labor pool).

D. Other Considerations

In addition to the capacity-based planning deliberations, the Committee addressed several other topics. Two, the transfer of development rights (TDR) and permit streamlining, relate to the implementation of the natural resources provisions of the SDRP. Finally, in the course of the capacity-based planning discussions, the Committee examined in-depth two existing policies of the PSDRP, stream corridors and air quality, as case studies.

II. FINDINGS

1. The capacity-based planning method is based on the notion of sustainability. Sustainability means that, at any point in time, there is a finite capacity of any place to support human activities, given a set of impacts that those activities have on the place. Once that finite capacity is reached, the impacts of additional growth or activities impair the functional integrity of the place. Functional integrity means the ability to continue to function as a healthy, living whole without excessive outside support that, if removed, would endanger the health of the place.

2. Capacity-based planning that protects the functional integrity of a place (community, township, region, or county) carries with it a responsibility to manage growth in accordance with a sustainable capacity. This notion is best exemplified by stewardship.

3. A capacity-based planning approach is currently used by a few communities and counties in New Jersey. It has a strong potential to be a comprehensive method to judge the capacity of an area to accommodate growth.

4. The capacity-based approach has merit for application by all levels of gov-

ernment in their growth management and planning. While it is applicable at all levels of government, it has most promise as a tool for regional planning.

5. Capacity-based planning is effective at the regional level because of its ability to account for cumulative and off-site/extra-municipal impacts of growth.

6. Capacity-based planning is a planning tool, not a regulatory tool. It is appropriate for inclusion in master plans. It is not designed to govern the use of individual parcels of land.

7. Capacity-based planning has been used for natural systems, particularly water, and to a lesser extent, land. It can be used for infrastructural systems as well, although its use in this regard has been limited thus far in New Jersey. Its use to address the social system of an area and to base growth management planning on an accepted vision has been minimal.

8. As a "systems" approach, capacity-based planning is applied best when it balances all systems affecting growth, and considers the systems together, evaluating their interactions. At a general level, these are natural, infrastructural, economic, and social systems.

9. There is a lack of existing resources at the county and municipal levels to conduct capacity-based planning.

10. There is a lack of coordination among planning jurisdictions, which leads to an insufficient regard to regional planning, particularly capacity-based planning issues.

11. The geographic extent of the region for each factor in a capacity analysis needs to be considered separately for each factor. For example, among the natural system factors, the region for air may be the entire State, while for water it may be limited to a particular watershed or aquifer.

12. The proliferation of and lack of coordination among environmental regulations at all levels of government does not necessarily result in good planning and often results in increased project costs and increased regulatory program costs.

13. A set of technical guidelines, such as those in Volume III of the PSDRP, are better conveyed in detailed technical reference documents that are the basis of a comprehensive technical assistance program, rather than as part of the State Plan.

HI. RECOMMENDATIONS

A. SDRP Objective for Natural Resources

The Committee recommended a more specific objective for the SDRP.

... to encourage and coordinate planning, development, and incentive and regulatory programs in a rational and reasonable manner that will accommodate the integrity, sustainability, enhancement and conservation of natural and cultural resources and the environment throughout New Jersey.

B. Capacity-Based Planning

1. Regional capacity-based planning should be conducted. Counties (i.e., planning boards and departments) should be the level of government that carries out a regional capacity-based planning analysis. Counties should coordinate with their mu-

municipalities and appropriate State and regional agencies in these analyses. Other levels of government also have roles in capacity-based planning. The State, in part through the State Plan, can aggregate and reconcile county growth level analyses called for in the PSDRP to arrive at an overall State capacity. Municipalities can use this method to conduct local capacity analyses. Developers can use a modified approach on a site-specific basis.

2. Planning capabilities of counties and municipalities should be enhanced through financial and technical assistance from the State in order to conduct capacity-based planning. Consideration should be given to modifying the County Planning Act and the Municipal Land Use Law in a coordinated fashion to strengthen regional planning by all levels of government and reduce duplication.

3. Research should be supported to continue to develop and apply the art and science of capacity-based planning and to educate the planning community regarding its application. This research should be coordinated with Federal activities, including the work that Ian McHarg is doing on a national environmental inventory.

4. Capacity-based planning should be used as a tool to assist regional and local land use and growth management planning. A capacity-based approach should be comprehensive, encompassing the four key systems which affect development: natural, infrastructure!, economic, and social.

5. The natural systems component includes, at least, air, land, water, and ecosystems.

6. The social systems component includes, at least, a consideration of community character that is defined by the local community, including existing demographic and social conditions, built and natural form, and the community's vision for itself in the future; and of cultural facilities.

7. The infrastructure! systems component includes, at least, water supply, transportation, sewage disposal, garbage disposal, stormwater drainage, open space, and schools.

8. The economic systems component includes, at least, fiscal authority and capacity of government to raise and spend public funds, and the overall financial capacity (determined market needs and projections, private contributions to public facilities and services, characteristic of the labor force).

9. Whenever possible, a capacity-based planning factor should be translated into a performance (as opposed to design) guideline in order to provide maximum flexibility in attaining the condition indicated by capacity-based planning. In making this recommendation, the Committee recognizes that design guidelines can be equally effective and should be used where appropriate.

10. A default planning guideline should be considered when the capacity of a factor of the capacity-based planning system cannot be determined.

11. The following general procedures should be carried out in the course of capacity-based planning:

- * Determine which factors will be considered in the capacity analysis;
- * Determine the geographic extent (region) of each factor upon which a capacity analysis will be performed;
- * Review literature and conduct field studies to find out the ability of each factor

to accommodate development;
Translate factor capacities into overall planning capacity;
Compare the overall capacity with expected levels of growth;
Allocate growth in accordance with the results of the comparison, using performance-based planning policies that implement the capacity-based planning approach;
Ensure policies are coordinated among all levels of government in order to attain compatible capacity-based plans.

C. Other Recommendations

1. The structure of the ISDRP should include goals, objectives, strategies, and policies. However, the Committee believes that guidelines and standards should be included in technical reference documents.
2. Tier One should stress the positive rather than the negative aspects of urban areas, and enhance the quality of urban natural resources.
3. The State Planning Commission should consider including an exurban policy area in the ISDRP. This policy area would be located somewhere between existing Tiers Five and Six on the hierarchy in the PSDRP.
4. Transfer of Development Rights (TDR's) may be an appropriate growth management tool where conditions exist such that appropriate market conditions support workable sending and receiving areas, and infrastructure exists or can be made available in receiving areas, and resources to be protected exist in sending areas. TDR programs should be made available, where appropriate, throughout the State. TDR programs might be more successful if carried out at the county level and included tax sharing provisions.
5. Regulatory reform and efficient permit review should be given a higher priority in the State Planning process.

D. Future Directions

Some committee members believe that future deliberations should focus on implementation of capacity-based planning. This may include using examples of this type of planning, and should include those examples that have used social and economic factors in their analysis. Additionally, since during this stage the focus was on capacity-based planning, future discussion should consider natural and cultural resources more directly.

IV. APPENDIX SELECTED EXAMPLES OF CAPACITY BASED PLANNING FACTORS

A. LAND RESOURCE FACTORS

Natural Resources:	Biological Diversity; Critical Slopes;. Prime Forested Areas; Unique Geological Features; Ridge Lines; NJDEP Natural Areas
Cultural Resources: Public	Recreation/Public Open Space; Agricultural Lands
Facilities/Services:	Waste Disposal Facilities

B. WATER RESOURCE FACTORS

Natural Resources:	Coastal Area; Flood Control; Stream Corridors; Water Supply Sources; Trout Waters; Pristine Waters; Reservoir Watersheds; Aquifer Re-charge Areas; Wetlands
Cultural Resources: Public	Recreation and Public Open Space
Facilities/Services:	Flood Control Facilities; Wastewater Treatment; Public Water Supply Facilities; Storm Water Management Facilities

C. AIR RESOURCE FACTORS

Natural Resources:	Carbon Monoxide (CO); National Ambient Air Quality Standards (NAAQS); Nitrogen Oxides (NO) x (NAAQS); Ozone (NAAQS); Particulates (NAAQS); And other contaminants for which NAAQS exist
Cultural Resources:	None
Public Facilities/Services:	Transport Systems

D. CULTURAL RESOURCE ELEMENT PRIMARY FACTORS

Natural Resources:	Scenic Corridors; Natural Landscapes of Exceptional Scenic Value
Cultural Resources:	Historic Areas; Scenic Corridors; Quality of Life; Community Character
Public Facilities/Services:	Cultural Facilities

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