What a Good Local Development Plan Should Contain

A Proposed Model

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A good local land development plan is vital in a community's strategy to control its destiny. This article suggests essential and fundamental features of such a "good plan," exceeding the merely minimal plan but remaining realistic for most North Carolina communities.

The suggested model plan is based on a project conducted jointly by a research team from the Department of City and Regional Planning and the Division of Community Assistance and funded by the North Carolina Clean Water Management Trust Fund. The study included a survey and evaluation of local comprehensive land use plans from across the state in 1998. Based on that information, a review of the growing literature on good planning practices, and the advice of a state-wide advisory committee, the research team formulated *Guidelines for North Carolina Local Governmental Development Plans*. This article is adapted and condensed from those guidelines.¹

This article focuses on the scope of development issues the plan should address, the elements it should contain, and certain essential features of its approach. The suggestions are meant to characterize the

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plan of any community, small or large, municipality or county. What will vary is the methodology that communities use to complete the recommended components.

What We Propose: In a Nutshell

First, to achieve appropriate scope in plan content, we propose that a local comprehensive development plan should integrate land use, environmental, and infrastructure planning in a comprehensive, long range approach.

Second, a plan should contain five specific components:

- A summary of the key features of the plan;
- A statement of community issues and vision;
- An information base of existing and emerging conditions;
- A statement of community values—goals, objectives, and development principles;
- A course of intended governmental policy and action, consisting of a future land use plan, development management program, and a monitoring and plan adjustment program.

Third, a community's plan should establish an appropriately sized planning area and include intergovernmental coordination.

The remainder of the article explains and illustrates these recommended features.

Appropriate Scope in Plan Content

A good land development plan will encompass

land use, environmental protection, and infrastructure planning at a minimum. That is, it should go beyond the design of future land use patterns, which is the focus of many North Carolina local plans. It should include coordination of environmental policy and land development policy to protect the environment and the coordination of community facilities and infrastructure, particularly water, sewer, and transportation, with land use and environmental protection.

This proposal is based on the premise that environmental protection can only be accomplished in conjunction with good land use planning. In addressing water quality protection matters, for example, the plan must recognize the reciprocity between land use and water resources. The future land use plan must incorporate consideration of the technology, economics, and natural processes that govern water resource and infrastructure planning. Similarly, water resource plans must be consistent with planned future land use, not just project land use trends.

Future land use and infrastructure must be developed jointly, each part consistent with and reinforcing the other. To do that, land use and water resource planning must meet the following criteria:

- They should be based on a common set of facts and assumptions that affect both demand for land and location and demand for water and for wastewater treatment;
- Land use plans should be based on suitability

Figure 1
Using the Development Plan
To Connect Three Concerns



Water Quality

Water Resource Infrastructure:
Water Supply, Wastewater, and
Stormwater

- analysis that includes the feasibility and economy of extending water and sewer infrastructure:
- The suitability analysis must include the relative vulnerability of environmental features and processes to land use changes, in addition to the usual assessments of accessibility and physical suitability of the land for real estate development; and
- The future land use plan needs to be analyzed and summarized by existing and proposed water and sewer service areas, as well as by sensitive environmental areas such as watersheds, flood plains, and wetlands.

Figure 1 (shown on previous page) suggests the conceptual connections between land use, environmental protection, and infrastructure, particularly water and sewer infrastructure that need to be addressed in the plan.

The Five Basic Components of a Local Plan

The plan should contain five components—an overview, an issues and vision statement, an information base, a goals-objectives-policy framework, and an intended policy and action program.

The overview is an easily accessible summary of the entire plan, focusing on the issues faced by the community, the vision for the future, and the intended course of action. It should also explain the purpose of the plan, the process by which it was formulated and adopted, and the commitment of the elected officials.

The community issues and vision section provides a capsule description of the issues facing the community and its aspirations for the future, based primarily but not solely on broadly participatory community self-examination.

The information base provides and organizes information beyond what is summarized in the issues and vision section. It covers existing and emerging conditions, i.e., where we are and where we are heading.

The goals-objectives-policy framework states the local government's primary goals, the objectives that can be used later to measure progress on those goals, and general development principles to promote those goals and guide the more explicit policy and course of action in the following component. Goals, objectives, and policies could be integrated with the issues and vision section, instead of constituting a separate section of the plan.

The final and most important part of the plan presents local government's intended course of policy and action. This consists of a map or maps of desired future land use patterns, a development management program, and a program to monitor implementation of the intended policies and actions and make regular adjustments to them.

Component One:

Introduction and Overview of the Plan

Tell them what you are going to say, say it, and tell them what you said. — Anonymous

This initial section should be a persuasive and easily understood mini-version of the key features of the plan. It should quickly inform the reader of the essential issues facing the community, present a vision of the future to guide the plan, and summarize the policies and actions to which the community is committing itself. It should also explain the purposes of the plan, communicate elected officials' commitment to using it, and explain the process by which the plan has been created and adopted and through which its implementation will be monitored and the plan adjusted. Thus, it is much more than an introduction; it becomes a condensed version of the complete plan that can be quickly read and grasped and even widely distributed as a plan summary.

Component Two: Issues and Vision Statement

Where there is no vision, the people perish.

- Proverbs 29:18 (from Gastonia, NC, plan)

Over the last decade, communities across the nation increasingly have found it useful to initiate plan making with a public, and sometimes intergovernmental, participatory process that combines taking stock of current issues with a future visioning process. This component in the plan is designed first to identify broadly held public values, problems widely agreed-upon as needing attention, major assets of the community, and major trends and forces impacting or potentially impacting the future of the community. But the process doesn't stop there. The participants in this process also formulate a vision of what the community wants to become, including

a vision of the future physical appearance and form of the community. Sometimes this process includes suggesting general development principles to implement the vision. A coalition of national organizations is drafting model state enabling legislation that would make this a required element in local plan-making.

There are several reasons for wanting such a section in the plan. First of all, it achieves broad and intense participation from the community and is educational for community leaders, stakeholders, and ordinary citizens. It can, and for many communities should, involve even neighboring communities. Thus it promotes both the participatory and the intergovernmental qualities that a good plan should have. Secondly, the issues and visioning approach examines both facts and values, and probes both existing and potential conditions in the community. Thus, it improves everyone's understanding of needs and values, initiates the plan from the broadest possible community base, and creates broad community momentum to address the future in more explicit ways in the sections of the plan to follow.

The following items are recommended in an issues and vision element of the plan (taken mainly from APA, *Growing Smart: Legislative Guidebook*, pp. 7-73-77,1998):

- 1. A description of major trends and forces;
- A report of the community's major advantages and opportunities for desirable growth and development, as well as disadvantages and threats to appropriate development;
- An account of the important community values to be promoted and problems and issues currently or potentially facing the local government;
- A vision statement that identifies in words an overall image of what the community wants to be and how it wants to look in the future; and
- 5. (Optional, may be part of this initial component or part of the later component on goals, objectives, and policies) A statement of general development principles to guide the community's planning and actions.

The county commissioners or city council may consider officially adopting the initial issues and vision element as an interim policy plan while the more formal development plan is being prepared. In that way it can immediately serve as a guide to the local legislature and executive branch in their decisions about public investments and ordinances.

Component Three: The Information Base

While the issues and vision component often includes a preliminary assessment of existing and emerging conditions, it is based on readily available data and the participants' sense of the relative importance of conditions and issues. The purpose of the information base element in the plan is to reassess and deepen that original information base. In the process, some of the community's issues and problems identified in the participatory issues and visioning process may be de-mythed while others are validated.

The information base for development planning should generally describe and analyze the following aspects of the local planning jurisdiction:

- 1. The present and projected future population and economy;
- 2. The land use and land development system by which the community physically changes and grows, and by which it improves or declines.
- 3. The public infrastructure that serves the community's population, economy, and land development industry. These facilities also influence real estate market and development decisions in the market.
- 4. The natural environment, which represents the community's valuable and possibly vulnerable resources, as well as physical constraints to land use and land development.
- 5. The de-facto development and environmental management system of local, state, and federal policies, ordinances, investments, and incentives.

The information base should encompass both temporal and spatial dimensions. That is, the studies should map existing conditions and show the spatial impacts of trends and projected conditions over time. For example, the population study covers both present and future projected population and describes variations in population characteristics among locations within the jurisdiction's planning area.

The information base should cover the entire geographic area appropriate for land development

planning. For growing municipalities, the appropriate planning area should extend significantly beyond the present municipal limits and even beyond present extra-territorial jurisdiction to include areas likely to be under development pressure within the next 20 to 30 years. For counties, that generally will be the entire county, perhaps with special attention given to growing areas within the county.

<u>Information Base Sub-Element 1:</u> The Population and Economy

A community's population and economy are its twin engines of growth and change. Population size and employment determine the amount of land needed, and its location. They also dictate the demand for public and private services and infrastructure (such as public water supply and wastewater treatment, schools, and recreation).

Future population and economy estimates should not be based exclusively on projections. The planning process should consider what population and economic levels are best; what economic and demographic structure is best, and what rate of growth is best for the community. In other words, population and economic analyses can have a normative side, and economic and population levels and rates of growth can be, to some degree, policy choices as well as trend projections. Communities should explore the number of people and the amount and types of economic activity that can be sustained without unacceptable harm to the community's long run environmental quality and community character.

<u>Information Base Sub-Element 2:</u> Land Use and Development

These studies assess several facets of land use and development. First they include an *inventory* and analysis of existing land supply and conditions. Most plans include such a study consisting of an existing land use map and table showing the number of acres in existing uses. A good plan will go further to include a second study that estimates future quantities of land that will be needed to accommodate increases in land use activity indicated by population and economic growth. A third study then should assess the suitability of the land supply to meet the projected or designed future demand for urban development and redevelopment.

It should account for the need for land for agriculture, forestry, and ecological processes not reflected in the urbanization estimates. That study examines factors that influence the amount, location, timing, and type of development and redevelopment activity in the land market.

<u>Information Base Sub-Element 3:</u> Community Facilities and Infrastructure

The plan should contain an analysis of existing community facilities and future needs with special attention to:

- public water supply systems;
- wastewater management systems;
- stormwater and floodplain management facilities and policies; and
- transportation systems.

Like land and land use analysis, the studies of community facilities require both supply side and demand side analysis, as well as an inventory of existing facilities.

Public Water Supply Systems

An inventory of publicly and privately owned drinking water supply systems should be provided in the plan, including a map of facility locations and their service areas. Safe yields of each source, maximum treatment capacity, and storage capacity should be stated. Where service boundaries exist or where they can be estimated on the basis of engineering considerations or policy, geographic boundaries should be identified and land areas and capacities should be stated by service area. Current rates of use should be estimated. If a new water supply watershed will be required, the plan should address that issue and delineate its proposed future boundaries. The water supply plan itself may be included by reference or summarized in the development plan.

Wastewater Management Systems

Current conditions of the wastewater management system should be described. They include identification of existing and potential service area boundaries, description of collection system and treatment works and their problems, and a summary statement of the adequacy of the existing system, the problems that need to be considered, and when they need to be addressed.

Stormwater and Floodplain Management Systems

This element should identify flood prone areas and stormwater management facilities, policies, and plans. At a minimum, floodplains delineated as part of the National Flood Insurance Program should be shown on maps. Properties at risk within these areas should be identified and summarized to estimate community vulnerability. Other areas where stormwater runoff is known to cause localized flooding should be identified. Stormwater management policies should be identified by reference to appropriate documents.

Transportation Systems

This element should identify the existing and planned transportation systems in the planning jurisdiction. These include thoroughfares, greenways, bikeways, transit routes and stations. This element should also assess the problems in the existing system and whether the future system will serve future land use patterns.

Many transportation plans are based on projections of existing patterns of land use and not on the future land use plan. Instead, the transportation plan and future land use design should be integrated.

Other Public Facilities

Additional community facilities may be inventoried where appropriate. These may include solid waste storage and treatment sites, schools, parks and recreation sites, libraries and other cultural facilities, hospitals and public health facilities, general government buildings,, and utilities and telecommunications facilities.

<u>Information Base Sub-Element 4:</u> Environmental Resources

Environmental resources affect development plans in at least two ways. First, they limit the feasibility of using lands in particular locations for particular purposes. Lands may be unsuitable for development due to flooding, steep slopes, highly erodable or poorly drained soils, unstable soils for foundations, and other characteristics of the landscape that pose health and safety concerns or substantially increase development costs. Second, potential adverse effects of development on sensitive

environmental systems could require either prohibition of certain types of development in some locations or imposition of costly site planning and engineering requirements on development permits.

Studies of environmental resources may include:

- Natural resources to be respected and protected. These include state or federally designated environmentally sensitive areas in particular, such as state designated water supply watershed categories, streams, lakes, and estuaries, river basins, groundwater aquifers, wetlands, floodplains and floodways, and mineral deposits.
- Land characteristics affecting suitability for development and potential to cause environmental degradation, including erodable soils; soil conditions unsuitable for septic tanks or where installation of septic tanks could trigger special conditions; steep slopes; areas subject to flooding, sinkholes, mudflows, and land subsidence; and noise zones around airports.
- Cultural and historic sites of special architectural, cultural, historic, archeological or aesthetic value.

The environmental studies may also cover land uses of particular relevance to environmental quality issues, such as brownfield sites, air quality permit holders, and wastewater dischargers.

Consider a local example of one of several types of maps that might be included in a natural resources analysis: a map showing the many water supply watersheds for Orange County, NC, covering over half of the land in the county. Areas designated as "Water Supply Watershed" on the map contain land draining to existing reservoirs which serve as public water supplies, or to potential reservoir sites or stream intakes for drinking water withdrawal. These areas have been designated for protection against threats to the water quality supplies, in accordance with County watershed protection programs and the North Carolina Water supply Watershed protection Act of 1989. Water protection restrictions on land development are in effect as required by the Act. The Water Quality Critical Areas on the map designate land within one-half mile of the normal pool elevation of an existing or proposed public water supply impoundment, or the ridge line of the watershed, whichever is closest to the normal pool elevation of the reservoir. More stringent land use and development regulations are in effect in those areas.

Not all of these elements are clearly relevant to all land development plan situations. Judgment is required to determine which ones are important to a particular area. Also, the environmental studies should be coordinated with the studies of land supply for development and redevelopment discussed above in the section on land use and development studies.

Information Base Element 5:

Existing Local, State, and Federal Policies and Development Management Capability

No local government is without a legacy of existing policies and programs that constitute a de facto development management program. These existing policies and programs generally have been assembled by different agencies of local, state, and federal government over a considerable period of time. As a consequence, they may be enmeshed with existing problems while offering potential solutions. Thus, an important element of the information base for the plan is an inventory and assessment of local, state, and federal policies, ordinances, and programs that significantly affect development and redevelopment.

This includes a description of relevant policies, maps of areas covered by such programs, assessments of progress in implementing existing policy and plans and obstacles encountered, and assessments of local government's inherent administrative, financial, and legal capabilities to implement its development management programs. This study should include existing and potential inter-governmental agreements, as well as areas of overlap and conflict.

Component Four: Goals, Objectives, and Policies

If you don't know where you're going, you might end up someplace else.

—Casey Stengel (from Gastonia, NC, plan)

This section of the plan identifies goals implied by the community values, problems, and aspirations initially uncovered in the visioning process. It also explores additional public interests to be pursued in the plan. Finally, it expresses all of these directionsetting ideas in a concise and useful format, usually as goals, objectives, and policies.

Goals are defined as future conditions to which the community aspires. They are usually expressed in fairly general terms, but may then be followed by more specific objectives. Objectives are intermediate achievements indicating progress in achieving goals. They are more tangible, specific, and attainable than goals and may even be measurable. Objectives will be useful in the benchmarking task in the monitoring component of the plan.

While goals and objectives represent ends, policies represent a step toward means. They are general action principles to guide government's decisions as well as the plan's intended action program and its future land use patterns. For example, they address the type, location, timing, density, mix, and other characteristics of future development or redevelopment to be promoted in order to achieve goals. Policies do not normally specify the actions to be taken, but rather establish principles to be followed, just as the Ten Commandments form a set of moral principles to guide an individual's actions.

Plans should consider four types of goals:

- The specific goals and aspirations of the community, derived from participatory goalsetting processes perhaps even from the earlier issues and visioning stage. For example, there may have been agreement that the community wants to maintain a dominant downtown or maintain a particular quality in existing neighborhoods.
- Mandated goals, prescribed by state and federal policy and from judicial interpretation of constitutional rights. For example, goals to protect water quality in North Carolina are explicit and implicit in state government programs such as the water supply watershed classifications.
- Generic public goals, that come from traditions of good government and good planning. Efficiency, equity, wide choice, health and safety, and quality of life are examples of generic public interest goals.
- *Needs*, which are calculations of requirements for land, services, and amenities at chosen

standards or level of service. Examples include calculation of the acres of land required for future development, or additional capacity and service area needed for future wastewater treatment.

The vision statement is a good format for incorporating an initial expression of future aspirations. That can be followed up by more indepth analysis of needs, mandated policy goals, and generic planning goals. The development plan should concentrate particularly on goals and policies directly relating to land use, environmental quality, and infrastructure.

Component Five: Program of Policy and Action

Every government that zones land, or makes public capital investments, or acquires land for public purposes, or taxes land for service, or in any other way attempts to influence private development is operating a development management system . . . —Einsweiler et al., 1978.

Components two, three, and four, described above, define the facts, values, aspirations, and action principles to provide general direction for the plan. The fifth component specifies just what the

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community intends to do to meet its needs, mitigate its problems, and achieve its goals. It should contain three elements:

- Desired spatial pattern of future land uses, including transportation, water, and sewer infrastructure and areas reserved for critical natural processes.
- A program of actions to implement the goals, general policies, and future land use pattern.
 The program of action usually includes a combination of new ordinances, modifications to existing ordinances, a community facilities/ capital improvements program, and policies

to guide extension of urban service areas. It also includes proposed annexations and extraterritorial jurisdiction extensions, intergovernmental agreements, follow-up small area plans or functional plans, and incentives to be imbedded in those ordinances and programs. It specifies a time schedule for implementation and assigns responsibilities for their accomplishment.

 A program for monitoring the implementation of the plan and adjusting development management program elements accordingly.

Policy and Action Sub-Element 1: Desired Future Land Use And Infrastructure Patterns

The purpose of this element is to provide spatial specificity to the plan's recommended policies and actions. It achieves this by mapping the desired future pattern of urban land uses, infrastructure and community facilities, and lands for critical environmental processes. The infrastructure component should indicate locations of the major future transportation facilities, general location of major water and wastewater treatment facilities and proposed service areas, and other major facilities,

such as an airport or open space system.

The future land development pattern of the local government's jurisdiction may be indicated in one of several formats. The two most common formats are the land classification plan and the land use design format. The land

classification plan format maps those areas of the proposed planning jurisdiction where transition from rural to urban development will occur to accommodate growth and where redevelopment or significant infill will occur. It also indicates where development should not occur. These include, for example, special habitats, areas where water quality is a critical concem, and areas where natural hazards such as flooding, storm surge, or expected erosion, pose a threat to development. Also included are areas designated as "environmentally sensitive" by state policy, e.g., state-designated streams and watersheds, wetlands, and rare species habitats.

Locations of major activity centers (commercial centers, employment centers, industrial areas) may also be indicated in a land classification plan. It should also include locations of major water, sewer. and transportation facilities, although in practice the land classification format often omits that element.

The other common format for indicating future land use is the "land use design." This format shows more specific future land use categories than does the land classification plan. It depicts the arrangements of residential areas, commercial and employment areas, mixed use areas, major activity centers, major community facilities, and urban open space systems.

Proposed areas of agriculture, forestry, and

environmental uses can also be shown. Densities are often indicated. Thus, the land use design format provides more specificity about how land using activities and community facilities are arranged in the future than does the land classification plan. It shows more about how the various land uses and community facilities fit together to form a community.

Whatever format is used to designate future urban development and other land use policy, it should be supported by a narrative indicating how the future land use promotes the

general policy principles and goals of the plan. It should include an analysis, in text and tables, of the projected 20-year build-out of the proposed future land use pattern, including numbers of dwelling units, employment, and the acreage being devoted to various land use designations on the land classification or land use design map.

For each infrastructure service area, the plan should indicate the population, number of dwellings, and employment that will require water and sewer at build-out of that service area, along with their implied infrastructure requirements. It should also describe the service levels, infrastructure capacity and timing, and any other significant dimensions of the public infrastructure being proposed for that service area. The analyses should state density assumptions and other assumptions involved in the analysis. It should compare the amount of land required to the amount of suitable land provided in the land use design or land classification plan; and compare the amount of water and sewer and other services required to the amount provided by facilities proposed in the plan.

Policy and Action Sub-Element 2: Intended Development Management Program

The development management program prescribes a five to ten year sequence of actions by governmental, intergovernmental, and nongovernmental or public-private entities. This implementation-oriented program may consist of,

but is not limited to the

development code or package of coordinated regulations for guiding development, redevelopment, and neighborhood conservation, and protecting environmental quality. It does not include the actual ordinances. They would be prepared during implementation of the plan. However,

following types components: A proposed

the plan should outline the standards for type, density, mix, impacts, site design, construction practices, exactions and impact fees, and incentives to encourage particular development. It should delineate districts where various standards, procedures. exactions, fees, and incentives will apply.

A program for expanding and improving urban infrastructure and community facilities and their service areas. It should include the timing and geographic boundaries of service area expansions; the proposed distribution of costs of land and facilities (among governments and agencies, and between public and private sectors); and links to regulations and incentives to assure that

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- adequate facilities are provided to development as it occurs. A capital improvement program may either be part of this component or coordinated with it.
- An acquisition program to obtain property rights by purchase, gift, or exaction.
 Acquisition provides open space for recreation and environmental protection, obtains lands for future community facilities or to promote redevelopment, economic development, and affordable housing.
- An on-going education program about the development plan, aimed at elected officials, appointed boards, development industry, and others.
- Inter-governmental agreements to coordinate community facilities, infrastructure, acquisition, and regulation programs among local governments and with state agencies.
- State or federal regulations and other programs directly affecting development in the local jurisdiction.

For each of its components, the development management program should specify the policy and action content, its location or geographic boundaries, its relative priority and timing, and the agency responsible for implementing the component. It should also describe its connection with components of the action program.

Policy and Action Sub-Element 3:

Program for Monitoring and Updating the Plan

This element outlines procedures for monitoring implementation of the plan, and for adjusting the plan accordingly. Monitoring covers three aspects: how well the community is carrying out the policies and development management program of the plan, whether resulting development and redevelopment is occurring consistent with the plan, and whether benchmark conditions related to objectives are improving.

Based on the results of the monitoring and evaluation and on changing conditions affecting the community, the plan should be updated periodically. Updating occurs at two levels. The first level might be annual or biannual assessments of progress, perhaps calling for planning reports and a related program of adjustments in the policy and action program. The second level would consist of more

thorough revisions at longer time intervals, say 5 to 10 years.

An illustrative table of contents for a local development plan is shown at the end of the article. It is based on excerpts from several NC local plans, selected to suggest the content of a good local comprehensive development plan.

Spatial Scope of a Good Local Land Development Plan

To be effectively comprehensive, a community's plan should establish an appropriately sized planning area and incorporate inter-governmental coordination.

Delineation of an Appropriate Planning Area

The geographic area to be addressed in the plan, called the planning area, should extend significantly beyond the present municipal boundaries and area of extraterritorial jurisdiction for cities and towns. If at all feasible, it should include all areas likely to comprise the future urban growth area and require urban services as a consequence of the plan and market forces over the next 20-30 years. Based on population, economic, and environmental information, the planning area should be determined early in the planning process and in conjunction with neighboring governments.

For counties, the planning area should generally include the entire county, though it might focus on development corridors or sectors of the county where land development issues or environmental issues are foreseeable.

Inter-governmental Coordination

In almost every case where the plan covers the entire area likely to be under development pressure over the next 20 years, the planning process should account for inter-governmental coordination. This is desirable to achieve consistency on assumptions about emerging conditions and projections, and to achieve coordination in the design and implementation of proposed policies and actions. Such inter-governmental coordination is particularly critical in reconciling land use controls along boundaries, achieving infrastructure efficiencies, shaping regional open space and an efficient regional employment distribution, and addressing issues of shared natural resources, such as a water supply

watershed or an estuary. Coordination may be required for delineation of extraterritorial jurisdictions and for land use regulations and capital improvements outside the extraterritorial jurisdictions. Both counties and municipalities must also coordinate their policies with state and Federal programs.

Summary

The proposed model of a local land development plan has certain definite features, an important one being a comprehensive and simultaneous approach to land use, environmental protection, and public infrastructure. The model development plan thus extends beyond the typical land use plan, though it is not as broad as a local comprehensive plan, which also may address community development, economic development, and housing issues.

Another feature of the proposed model plan is that it has five specific components: an overview of key features, an issues and vision statement, a specific information base (one that addresses population and economic change, land use, environment, infrastructure, and an assessment of local, state, and federal development and environmental programs), a goals-objectivespolicies framework, and an intended program of policies and action. There is considerable flexibility in how the five suggested components of the plan are designed and how they are arranged. The rigor and depth of the methodology employed in creating them, and the detail in which they are presented, may also vary according to the particular circumstances of the local government creating the plan. Nevertheless, the components themselves represent necessary elements in a comprehensive local government's strategy for managing the uncertainties of its future.

The model plan also features a planning area sufficiently large to incorporate potential urban growth areas over the long-range period covered by the plan.

Lastly, the model plan incorporates intergovernmental coordination concerning

In almost every case where the plan covers the entire area likely to be under development pressure over the next 20 years, the planning process should account for inter-governmental coordination.

determination of the planning area, assumptions about emerging conditions and projections, future urban growth areas, extraterritorial jurisdiction and joint planning areas.

If these features are present the plan has an excellent chance to be effective in helping a community guide its future development. What it will take in addition is persistent

commitment by elected and other officials in implementing the plan and making appropriate adjustments over time to reflect what a community is learning from implementation.

End Notes

¹The *Guidelines* are scheduled for publication by the Division of Community Assistance later this year. A related article, focusing on the statewide survey results and the issue of addressing water quality in the development plan may be found in Hinkley, Sara, and Edward J. Kaiser, "Making the Land Use-Water Quality Connection," *Carolina Planning*, vol. 24, no. 1, Winter 1999. The authors wish to thank David Moreau, coprincipal investigator on the project; Sara Hinkley, Jeremy Klop, and Jeff Masten, research assistants; John Berndt and Tom Richter of DCA; and the projects advisory committee.

Appendix: SEE FOLLOWING PAGE

AN ILLUSTRATIVE TABLE OF CONTENTS FOR A LOCAL DEVELOPMENT PLAN

(Adapting excerpts from actual North Carolina plans)

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 - 3. How we can get there: a program of policy and action
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- B. Significant existing and emerging conditions
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 - 4. Physical land suitability (soils, topography, flooding...)
 - 5. Environmentally fragile areas (wetlands, public trust areas, estuaries and shorelines...)

- 6. Natural resource areas: potential prime agricultural soils, gravel deposits, marine resources
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 - 6. Regional Transportation Improvement Plan

Chapter IV. Goals, Objectives, and Policies to Guide us into the Future

- A. What we want for our community
- B. Goals and policies
 - 1. Land use
 - 2. Environmental quality
 - 3. Water and sewer service
 - 4. Recreation and open space
 - 5. Transportation

Chapter V. A Plan for the Future

- A. The land classification plan
 - 1. Urban development areas and policies
 - 2. Natural resource conservation areas and

- policies
- 3. Rural areas and policies
- 4. Community facilities and infrastructure
- B. Development and environmental quality management programs
 - 1. Unified development ordinance
 - 2. Community education program
 - 3. Coordination with neighboring governments
- C. Managing redevelopment and infill

- D. Environmental protection ordinances and acquisition program
- E. Water quality protection program
- F. Community facilities and infrastructure
 - 1. Water supply
 - 2. Wastewater treatment
- G. Putting the plan into action
 - 1. Action phasing and priorities
 - 2. Roles and responsibilities
- H. Monitoring and plan adjustment