

PREPARING A MASTER PLAN FOR YOUR COMMUNITY

A Handbook for Planning Board
Members, Planners and
Volunteers



PREPARING A MASTER PLAN FOR YOUR COMMUNITY

A Handbook for Planning Board
Members, Planners and
Volunteers

Prepared By
Southern New Hampshire Planning Commission

June 2004

This document was financed through a grant from
The New Hampshire Office of Energy and Planning

TABLE OF CONTENTS

Foreward

Chapter 1 Introduction 1

Purpose of Handbook 1

Organization/Contents of Handbook 2

Chapter 2 The Master Planning Process 4

A Brief History of Master Planning in New Hampshire 4

What is a Master Plan? 6

The Basics Characteristics of a Master Plan 7

Legal Significance of a Master Plan 7

Roles and Responsibilities in Preparing a Master Plan 8

The Process of Preparing a Master Plan 9

Outline of the Organizational Steps in Preparing a Master Plan 11

What Makes a Good Plan? 14

Chapter 3 What Should Be Included in Your Master Plan 15

Mandatory Sections 15

Other Master Plan Sections 16

Supplemental Master Plan Sections 27

Chapter 4 Phase I: Getting Started 29

Step A: Deciding to Plan and Commit Resources 29

Step B: Preparing Work Plan and Sharing with Elected Officials and the Public 30

Step C: Ensuring That Resources Are in Place 35

Summary of Action Steps for Developing Your Master Work Plan 36

Chapter 5 Phase II: Community Visioning 37

Step 1: Community Visioning: Developing Vision Statement, Goals, and Objectives 37

The Visioning Process 38

Visioning Models 38

Incorporating Vision Statements, Goals, and Objectives into a Master Plan 41

Chapter 6 Phase III: Building the Information System	42
---	-----------

Step 2:	Data Collection and Inventory – Preparing the Community Assessment and Existing Land Use Map	42
Step 3:	Data Analysis: Formulating Future Development Scenarios Based on Vision Statement, Community Assessment, and Land Use Maps	64

Chapter 7 Phase IV: Building the Plan	67
--	-----------

Step 4:	Evaluating Future Development Scenarios	67
Step 5:	Selecting the Preferred Development Scheme (Future Land Use Map)/Preparing and Adopting the Plan	68

Chapter 8 Phase V: Implementation	78
--	-----------

Step 6:	Implementing the Plan: A Summary of Available Tools	78
Steps 7 & 8:	Monitoring, Amending, and Updating Your Plan	84

Chapter 9 Basics of Planning Theory	86
--	-----------

What is Planning?	86
Why Do Communities Plan?	87
Why Should Your Community Want to Prepare a Master Plan?	88
How Much Will It Cost to Prepare a Master Plan?	88
How Long Will It Take to Prepare a Master Plan?	89
Is Hiring a Professional Planning Consultant Necessary?	89
Some Helpful Hints in Preparing Your Plan	90
When Should You Update an Existing Plan	91
Different Ways to Plan	91
The Various Approaches to Planning	91
The Different Types of Master Plans	95
Which Master Plan Makes the Most Sense for Your Community	99
Other Related Community Plans	100
Master Plan Examples	101

Chapter 10 Tools and Techniques	104
--	------------

Build-Out Analysis	104
Strategies for How to Get the Public Involved	106
Community Surveys	107
Tips for Writing Press Releases	109
Printing and Publishing Your Master Plan	109
Maps	111
Visioning Models	112
Innovative Land Use Controls	114

Chapter 11 Planning Concepts and Themes 116

New Trends in Master Planning	116
Growth Management	117
Smart Growth	118
Smart Growth Audit	118
Compact Growth	119
Urban Growth Boundaries	119
Integrated Planning	119
Neotraditional Development	119
Traditional Neighborhood Development	120

Chapter 1 Bibliography/Resources 121

Visioning	121
Citizen Participation	123
Land Use	125
Smart Growth	129
Transportation	135
Community Facilities	141
Housing	143
Economic Development	147
Natural Resources	152
Natural Hazards	163
Recreation	165
Cultural & Historic Resources	167
Regional Concerns	170
Neighborhoods	173
Community Designs	175
Mapping Resources	178
Other Useful Resources	179
Internet Resources	181
Regional Planning Commissions	189



Southern New Hampshire Planning Commission

438 Dubuque Street • Manchester, New Hampshire 03102-3546

Telephone (603) 669-4664 • Fax (603) 669-4350

Foreword

Preparing a Master Plan for Your Community is an interactive CD-ROM, accompanied by a supporting handbook, to assist New Hampshire communities with their planning efforts.

The Southern New Hampshire Planning Commission (SNHPC), under the direction of an oversight committee of state, regional and town planners, has produced this useful new tool. *Preparing a Master Plan for Your Community* is intended to be used by volunteers, community officials, and professional planners alike, as it provides helpful information, offers instructions, and condenses the master planning process into easy-to-follow steps and procedures.

Master planning is the foundation of community planning. While almost all New Hampshire communities have prepared master plans at one time or another, many communities are at a loss when it comes time to update these plans. Some communities have master plans that by today's standards are too lengthy, contain too much information, and lack, often, the key components of community visioning and land use planning.

Preparing a Master Plan for Your Community addresses these issues by

- educating the user about what it means to plan and why it is important to adopt a master plan
- walking the reader through the essential steps of preparing, adopting, and implementing a master plan
- providing interactive capabilities and a bibliography that references a variety of planning-related publications, resources, videos, articles, websites, books, and manuals

While it is not the intention of this handbook to develop a model master plan for any particular community, or to serve as a substitute for the consultation of a planning professional, *Preparing a Master Plan for Your Community* is instructional, easy-to-use, and transferable from one community to another. *Preparing a Master Plan for Your Community* also serves as an excellent introduction to planning for members of local planning boards, zoning boards of adjustment, conservation commissions, boards of selectmen, city councilors, and students, among others.

The interactive CD-ROM will enable users to easily maneuver directly to the information most useful to them. Much of what has been constructed is built upon the innovative Planner on a Disc created by the Pioneer Valley Planning Commission in Springfield, Massachusetts.

The CD-ROM includes several important master planning tools such as how to conduct a smart growth audit and a community visioning process. The smart growth audit is a checklist that communities can use to review existing plans and regulations for the inclusion and implementation of smart growth principles. Many communities across New Hampshire are including a chapter on smart growth in their master plans; and community visioning is now a mandatory section in all master plans as required by state statutes. A step-by-step guide on how to prepare existing and future land use maps has also been included on the CD-ROM.

The SNHPC looks forward to hearing what experiences you have in using this new interactive tool. Please feel free to e-mail comments to email@snhpc.org or send a note to: SNHPC, 438 Dubuque Street, Manchester, NH 03102-3546.

A handwritten signature in blue ink, appearing to read 'M.N. Sharma', is positioned above the typed name and title.

M.N. Sharma
Executive Director
Southern New Hampshire Planning Commission

Introduction

Purpose of Handbook

This handbook is designed to assist planning board members, planners, and volunteers in the process of preparing, updating, adopting, and implementing a master plan. It provides a comprehensive overview of the master planning process, so that it can be easily applied in communities of all sizes and characteristics.

to them. Plus, it provides users instructional and analytical capabilities for carrying out a variety of master planning processes, including community visioning and the developing of existing and future land use maps. It also includes a checklist for conducting a smart growth audit.

*The great
use of life is to
spend it for
something that
will outlast it.*
- William James



The master planning process, legal requirements, data analysis, and techniques, as well as the latest planning concepts and themes, are described in easily followed terms, tables, and interactive tools.

Most planning guides are one-dimensional, in the sense that they are descriptive only. *Preparing a Master Plan for Your Community* is different. The CD-ROM makes it interactive. It includes links and menus that enable the user to browse or maneuver directly to the information most useful

Preparing a Master Plan for Your Community is designed to help communities understand the planning process by putting it in simple terms. In demonstrating that planning is neither difficult nor complicated, it shows that energetic volunteers can do it. The process, however, requires a grasp of the basic planning tools and techniques employed by professional planners and consultants. It also requires a high degree of community involvement, a willingness among local leaders to become stakeholders in the process, and an attitude of caring and respect.

Organization/Contents of Handbook

This handbook is divided into twelve chapters. Each chapter is identified and briefly described below.

1. Introduction – Explains the purpose of the handbook.



2. The Master Planning Process – Begins with a brief history of master planning in New Hampshire. It defines what a master plan is – its basic purpose, characteristics, and legal significance. There is a summary of the roles and responsibilities of those preparing a plan and the eight basic steps of the master planning process. Those eight steps are organized into five phases, and the elements that make a good plan are identified. Also included is a summary of the organizational steps involved in preparing a master plan. Using the CD-ROM, you should be able to click on any step in this summary and obtain immediate information on how to proceed.

3. What Should Be Included in Your Master Plan – Lists the two mandatory elements of a master plan, the vision and land use sections. It also describes the other thirteen sections that may be included.

4. PHASE I: Getting Started – Focuses on the first part of the master planning process – how to begin preparing a plan and what should be considered during its development.

5. PHASE II: Community Visioning – Defines community visioning and explains how to go about undertaking a community visioning process. A guide showing how to conduct a visioning process is also included on the CD-ROM.

6. PHASE III: Building the Information System – Focuses on the steps of data collection and analysis. Information about how to conduct a community assessment, as well as how to formulate future land development scenarios, is provided. A summary of the maps and data needed to conduct a natural resource inventory is also included, as well as a step-by-step guide on how to prepare an existing land use map.

7. PHASE IV: Building the Plan – Describes how to evaluate data, consider future development scenarios, and select a preferred development scheme. It outlines the procedures for preparing and adopting a master plan. Also included is a step-by-step guide on how to prepare a future land use map.

8. PHASE V: Implementation – Describes how to implement your plan once it has been adopted. It explains how to monitor the plan's success, as well as how to amend and update it in the future. Implementation tools, land use regulations, and the capital improvement program (CIP) are described, along with a number of strategies for involving the general public.

9. The Basics of Planning Theory – Provides an overview of planning theory – what it means to plan, why communities plan, how much it costs to prepare a plan, how long it will take, and whether hiring a professional consultant is necessary. It concludes with a summary of helpful hints, a description of when an existing plan should be updated, and a review of the various approaches to planning and the different types of master plans that can be prepared.

10. Tools and Techniques– Provides an overview of a number of planning tools and techniques that are useful in the development of a master plan. Also included is a guide on how to conduct a build-out analysis. Information about community surveys, how to get people involved, publishing and printing, maps, visioning models, and innovative land use controls are also identified.

11. Planning Concepts and Themes – Provides an overview of new trends in master planning, growth management, smart growth, compact growth, urban growth boundaries, and other master planning concepts and themes. Also included on the CD-ROM is a checklist for conducting a smart growth audit.

12. Bibliography/Resources – Provides an interactive-bibliography. Numerous publications and resources are listed under topics such as land use, housing, and transportation. Also included is a guide to various agencies and websites that may be helpful to you when developing your master plan.

The Master Planning Process

A Brief History of Master Planning in New Hampshire

New Hampshire has a long history of planning at the state, regional, and local levels. Each level of government is charged with preparing a plan that addresses its particular needs. A state development plan is required under RSA 9-A, which “establishes state policy on development related issues and provides new or expanded programs to implement such policies.”

*The future is
not completely
beyond our
control. It is
the work of our
own hands.*

- Robert F. Kennedy

A “comprehensive master plan for the development of the region” is required of each regional planning commission under RSA 36:47.

Finally, under RSA 674:1, a municipal planning board has the duty “to prepare and amend from time to time a master plan to guide the development of the municipality.”

Much of New Hampshire’s planning legislation stems from the Standard State Zoning and Standard City Planning Enabling Acts, which were originally developed by the United States Department of Commerce in the 1920s. Adoption of the Standard State City Planning Act in 1935 by the New Hampshire State Legislature authorized towns and cities in New Hampshire to prepare, for the first time, official comprehensive plans for their jurisdictions.

Initially, there was a distinction between the terms “comprehensive plan” and “master plan” in New



Hampshire’s planning statutes. The New Hampshire planning statutes adopted pursuant to the Standard State Zoning Enabling Act required land use regulations to be in accordance with a “comprehensive plan.” However, this term was not defined, and it was often confused with the term “master plan.” In 1983, a major recodification of the statutes corrected this problem and had the overall effect of strengthening the role of planning in the state. It merged, into one planning statute, the provisions regarding comprehensive plans and master plans and made it clear that the adoption of a master plan is a prerequisite in order for a municipality to establish a zoning map

(New Hampshire Practice, Volume 15, Land Use, Planning & Zoning, 3rd Edition, Peter J. Loughlin, pgs. 55 and 56).

Some of the earliest master plans in New Hampshire were prepared by the cities of Keene (1945), Hanover (1957), and Dover (1960). During the 1960s and '70s, more communities across the state began to prepare plans, as federal funding for comprehensive planning was made available through urban planning grants. This funding was provided by the Housing and Home Finance Agency, under the provisions of Section 701 of the Housing Act of 1954, as amended.

Unfortunately, many of the early Section 701 comprehensive plans tended to be too heavy on data and too light on action steps, public participation, and implementation. The plans also underestimated the impact technology would have on community development. In many communities, a great number of residents were not even aware that plans existed. Those few residents who were aware generally perceived the comprehensive plan to be an ideal, a utopian vision of what a city or town should be like in 30 or 40 years. In fact, these 30- to 40-year comprehensive plans offered little guidance on how to get from the present to the future. They were ignored because “the future” was too far off. For this reason, use of the term “comprehensive plan” eventually fell out of favor.

It was not until the 1980s and '90s, however, that the term “master plan” became widely accepted. During this period, many more cities and towns across the state began to prepare master plans. The focus of planning shifted from a long-range vision to strategies designed to shape the near or more predictable future. As a result, 10- to 20-year plans became more common.

There were several reasons for this. First, growth, as measured most directly by population, was increasing dramatically, and cities and towns across New Hampshire were struggling to define and provide for this growth. Second, regional planning commissions came of age and could offer the professional and technical expertise needed by local governments to address growth-related

problems. Third, a growing emphasis was being placed on the need for citizen participation in the planning process (see Staff Technical Report 2, Land Use Planning, July 1988, New Hampshire State Development Plan, NH OSP).

By 1988, roughly 144 of New Hampshire's 234 communities had adopted master plans (Planning for Growth in New Hampshire Communities: Perceptions and Efforts of Local Officials by D.E. Morris, J.D. Kline, and E.F. Jansen, Jr., New Hampshire Agriculture Experiment Station, University of New Hampshire, Durham, NH 03824, pg. 7).

Today almost all of New Hampshire's cities and towns have, at one time or another, adopted a town plan, a comprehensive plan, or a master plan (for more information on the status of master plans, see the New Hampshire Office of Energy and Planning Survey of Master Plans by Municipality, http://www.state.nh.us/osp/library/m.html#municipal_land_use_regulations).

Between 1983 and 2002, few, if any, legislative changes were made to New Hampshire's planning statutes. Prior to May 2002, RSA 674:2 stated that all master plans should include, if appropriate or if specifically required as a prerequisite for the adoption of implementation measures, the following ten sections: (1) general Statement of objectives and principles; (2) land use; (3) housing; (4) transportation; (5) utility and public service; (6) community facilities; (7) recreation; (8) conservation and preservation; (9) construction materials; and (10) appendices or separate reports, where appropriate. According to RSA 674:18, the general statement and land use sections of the master plan must be adopted prior to the local legislative body adopting a zoning ordinance. With the adoption of House Bill 650 in May 2002, RSA 674:2 was amended to include references to smart growth and to include two mandatory sections, a vision and a land use section. It also allows a community to include up to thirteen other sections, as specified in the legislation (for a description of these sections, refer to Chapter 3, “What Should Be Included in Your Master Plan”).

What Is a Master Plan?

In the simplest terms, a master plan is a planning document that serves to guide the overall character, physical form, growth, and development of a community. It describes how, why, where, and when to build or rebuild a city or town. It provides guidance to local officials when they are making decisions on budgets, ordinances, capital improvements, zoning and subdivision matters, and other growth-related issues.

A master plan also provides an opportunity for community leaders to look ahead, establish new visions and directions, set goals, and map out plans for the future. Properly done, a master plan should describe where, how, and at what pace a community desires to develop physically, economically, and socially. In short, a master plan functions much like a roadmap or a blueprint; it is a guide to the future.

As stated in NH OSP Technical Bulletin 3, *Formulating the Master Plan* (Spring 2003), a master plan is also a reference document. It contains the appropriate maps, charts, and supporting text to present the recommendations of the planning board and offers guidelines for community decision-makers.

A master plan also serves as a summary of local actions. It acts as a continuing reminder of what a community has agreed to accomplish within a specified time period. A master plan should not be engraved in stone, though; it can, and should, be reviewed and updated as conditions change within a community.

A master plan should also be a complete source of information about current conditions and trends within a community, a summary of the base data related to the town's development. By presenting coordinated policies on such topics as future growth and development, transportation, environ-

mental protection, community facilities, and fiscal management, the master plan can help officials deal with change responsibly and guide growth in an orderly, constructive manner (NH OSP, Technical Bulletin 3, page 1).

A Master Plan Is

- a guide to the future
- a reference document
- a summary of local actions
- a source of information

New Hampshire planning statutes define the purpose and function of a master plan as follows:

RSA 674:2 Master Plan: Purpose and Description.

I. The purpose of the master plan is to set down as clearly and practically as possible the best and most appropriate future development of the area under the jurisdiction of the planning board, to aid the board in designing ordinances that result in preserving and enhancing the unique quality of life and culture of New Hampshire, and to guide the board in the performance of its other duties in a manner that achieves the principles of smart growth, sound planning, and wise resource protection.

II. The master plan shall be a set of statements and land use and development principles for the municipality with such accompanying maps, diagrams, charts, and descriptions as to give legal standing to the implementation ordinances and other measures of the planning board. Each section of the master plan shall be consistent with the others in its implementation of the vision section. The master plan shall be a public record subject to the provisions of RSA 91-A.

As Provided by RSA 674:2, the Primary Purpose of a Master Plan Is

- to envision the best and most appropriate future development of your community
- to aid your planning board in designing ordinances
- to guide your planning board in performance of its duties, to achieve principles of smart growth, sound planning, and wise resource management
- to establish statements of land use and development principles
- to establish legal standing for implementation ordinances and other measures of your planning board

The Basic Characteristics of a Master Plan

As stated in *The Practice of Local Government Planning* (Hollander, Pollock, Reckinger, and Beal, 2d ed., Washington: International City Management Association, 1988, So and Getzels, editors, pp. 60-61), a master plan has the following characteristics:

- First, it is a **physical plan**. Although a reflection of social and economic values, the plan is fundamentally a guide to the physical development of the community. It translates values into a scheme that describes how, why, when, and where to build, rebuild, or preserve the community.
- A second characteristic is that it is **long-range**, covering a time period greater than one year, usually five years or more.
- A third characteristic of a general development plan is that it is **comprehensive**. It covers the entire city geographically – not merely one or more sections. It also encompasses all the functions that make a community work, such as transportation, housing, land use, utility systems, and recreation. Moreover, the plan considers the interrelationships of functions.
- Finally, the master plan is a **guide to decision-making** for the planning board, the governing board and mayor or manager.

Another important characteristic of the master plan is that it is a **statement of public policy**. The plan translates community values, desires, and visions into land use and development principles that can guide the future growth of your community. The policies of the plan provide the basis upon which public decisions can be made.

The Basic Characteristics of a Master Plan

- It's physical.
- It's long-range.
- It's comprehensive.
- It's a guide to decision making.
- It's a statement of public policy.

Legal Significance of a Master Plan

It is important to point out that a master plan is not a land use regulation, nor is it an ordinance of law. Thus, a master plan cannot be legally enforced. However, because a master plan serves as an official policy guide for a municipality, any ordinance pertaining to the use of land or the growth and development of the municipality should conform to the goals and policies of the plan. In short, “a carefully designed community land use plan is the basis for land use control” (Beck v. Town of Raymond 118 NH 793,800, 1978).

While the contents of a master plan may serve as a guide in the public and private development of land, a master plan is not binding upon municipal officials when they are making specific land use decisions. However, nothing in a master plan is intended to prohibit a court of law, in its consideration of governmental action, from considering the reasonableness of a plan or its appropriateness in relation to the governmental action under review.

As presently set forth by New Hampshire statutes, a master plan is a legal prerequisite for the following:

- adoption of a zoning ordinance (RSA 674:18)
- adoption of a historic district (RSA 674:46-a IV)
- establishment of a capital improvement program (RSA 674:6)
- adoption of a growth management ordinance (RSA 674:22)

RSA 674:18 Adoption of a Zoning Ordinance currently provides that “the local legislative body may adopt a zoning ordinance under RSA 674:16 only after the planning board has adopted the mandatory sections of the master plan as described in RSA 674:2, I and II.”

As noted earlier, the mandatory sections of a master plan as provided by RSA 674:2 I and II are the vision and land use sections (for more information, see Chapter 3, “What Should Be Included in Your Master Plan”). Your community’s master plan must include these two sections. Otherwise, your plan will not comply with RSA 674:18, as a prerequisite to the adoption of future zoning ordinances. This could also be understood to include any innovative land use controls under RSA 674:21.

Roles and Responsibilities in Preparing a Master Plan

The Planning Board

Under state statutes, the preparation of a master plan is the official duty and responsibility of the planning board (see RSA 674:1 as follows).

RSA 674:1 Duties of the Planning Board.

I. It shall be the duty of every planning board established under RSA 673:1 to prepare and amend from time to time a master plan to guide the development of the municipality. A master plan may include consideration of any areas outside the boundaries of the municipality that in the judgment of the planning board bear a relation to or have an impact on the planning of the municipality. Every planning board shall from time to time update and amend the adopted master plan with funds appropriated for that purpose by the local legislative body. In preparing, amending, and updating the master plan:

(a) The planning board shall have responsibility for promoting interest in, and understanding of, the master plan of the municipality. In order to promote this interest and understanding, the planning board may publish and distribute copies of the master plan, or copies of any report relating to the master plan, and may employ such other means of publicity and education as it may deem advisable.

(b) The planning board shall also have authority to make any investigation, maps and reports, and recommendations that relate to the planning and development of the municipality.

RSA 674:1 makes it clear that it is the official duty and responsibility of every planning board in New Hampshire to prepare and amend a master plan to guide the development of the municipality. While the statute is not clear as to when the plan must be prepared, it specifically states that “every planning board shall from time to time update and amend the adopted master plan with funds appropriated for that purpose by the local legislative body.” Additionally, RSA 674:3 states that revisions to the plan are recommended every 5 to 10 years.

RSA 674:1 also provides that “the master plan may include consideration of any areas outside of the boundaries of the municipality which in the judgment of the planning board bear a relation to or have an impact on the planning of the municipality.” This is an important consideration when addressing issues of regional concern (for more information about regional concerns, see Chapter 3,

“What Should Be Included in Your Master Plan”). RSA 674:1 further provides that the planning board shall be responsible for promoting an interest in and understanding of the master plan within the community and that to promote this interest, the board may publish and distribute copies of the plan or any reports related to the plan, or employ other means of publicity and education that it deems advisable. Finally, the planning board has the authority to make any investigations, maps, reports, and recommendations that relate to the planning and development of the municipality.

The Governing Body

There is currently no legal requirement that the governing body of your municipality must approve or adopt a master plan. However, elected officials are very influential in setting municipal policy on growth and development. Consequently, it is extremely important that your governing body participate and become actively involved in the planning process. By not including the governing body in the planning process, you could jeopardize the outcome or implementation of your plan.

Unless your master plan can be prepared strictly on a voluntary basis or by municipal staff, you will need the support of the governing body in recommending and/or appropriating the funding needed to prepare the plan. In a small town, the board of selectmen and the budget committee will recommend at town meeting whether or not funding should be approved. In a larger town or city, the city council appropriates funding through a budgetary process that typically involves the mayor, the budget committee, and the city manager.

The Town Planner

If your community employs a town planner, it would generally be that person’s responsibility to help organize and facilitate the master planning process on behalf of the planning board. Depending upon the size of your community, though, the town planner may be busy with other

duties and responsibilities. As a result, your community may need to seek the assistance of an outside planning consultant or utilize the services of the regional planning agency.

The Process of Preparing a Master Plan

Generally, preparing a master plan should be thought of as a forward-thinking process that will help to move a community from today’s reality to tomorrow’s possibilities. The word “process” is central to this view of planning. There are four processes involved in preparing a master plan: a legal process, a technical process, a public process, and a management process.

As a **legal process**, the development of a master plan is governed by principles, statutes, and codes. The legal authority for local planning is derived from the state. Local officials and community members must be cognizant of the state’s enabling laws as they define the planning board’s range of duties and responsibilities and the procedural requirements it must follow in the preparation and implementation of a master plan.

As a **technical process**, the preparation of a master plan begins once a community makes the decision to plan and commits the necessary time, energy, human resources, and money to do so. The decision to plan, although important, is meaningless without some framework capable of transforming intent into a planning document. Accordingly, an important technical concern involves the actual steps the planning board should follow to prepare, adopt, implement, and, where needed, update a master plan. Eight basic steps are identified on the next page and described in more detail in the following chapters.

In the real world, the planning process as outlined above does not always unfold in a neat, step-by-step manner. Planning boards must become accustomed to the fact that the process will not always proceed as planned. Accordingly, a planning board’s ability to adjust and even improvise is important.

The Eight Steps of the Master Planning Process

- | | |
|---------|---|
| Step 1: | Community visioning: engaging the public and developing vision statements, goals, and objectives |
| Step 2: | Data collection and inventory: preparing the community assessment and existing land use map |
| Step 3: | Data analysis: formulating future development scenarios based on vision statements, the community assessment, and land use maps |
| Step 4: | Evaluating future development scenarios |
| Step 5: | Selecting a preferred development scheme (the future land use map) and preparing and adopting a plan |
| Step 6: | Implementing the plan |
| Step 7: | Monitoring the plan |
| Step 8: | Amending and updating the plan |

In addition to the legal and technical processes involved in master plan development is the public process. A planning board must decide what role the public will play. Increasingly, citizens are being asked by planning boards to perform key tasks associated with the development of a master plan. To this end, planning boards need to ask the following questions:

- Who are the key stakeholders in the community?
- How will they be involved in the process?
- What information will the board need from them and from the broader public?
- How will this information be secured?
- What mix of technical analysis and popular opinion will be needed?
- Will the plan be developed as a top-down exercise, a bottom-up effort, or a combination of the two?
- How will public involvement be structured and financed?
- How much time will be allowed for this public process?

Determining in advance how the public will be integrated into the master planning process is a fundamental challenge in preparing a plan.

A final consideration involves the management of the planning process. In communities with profes-

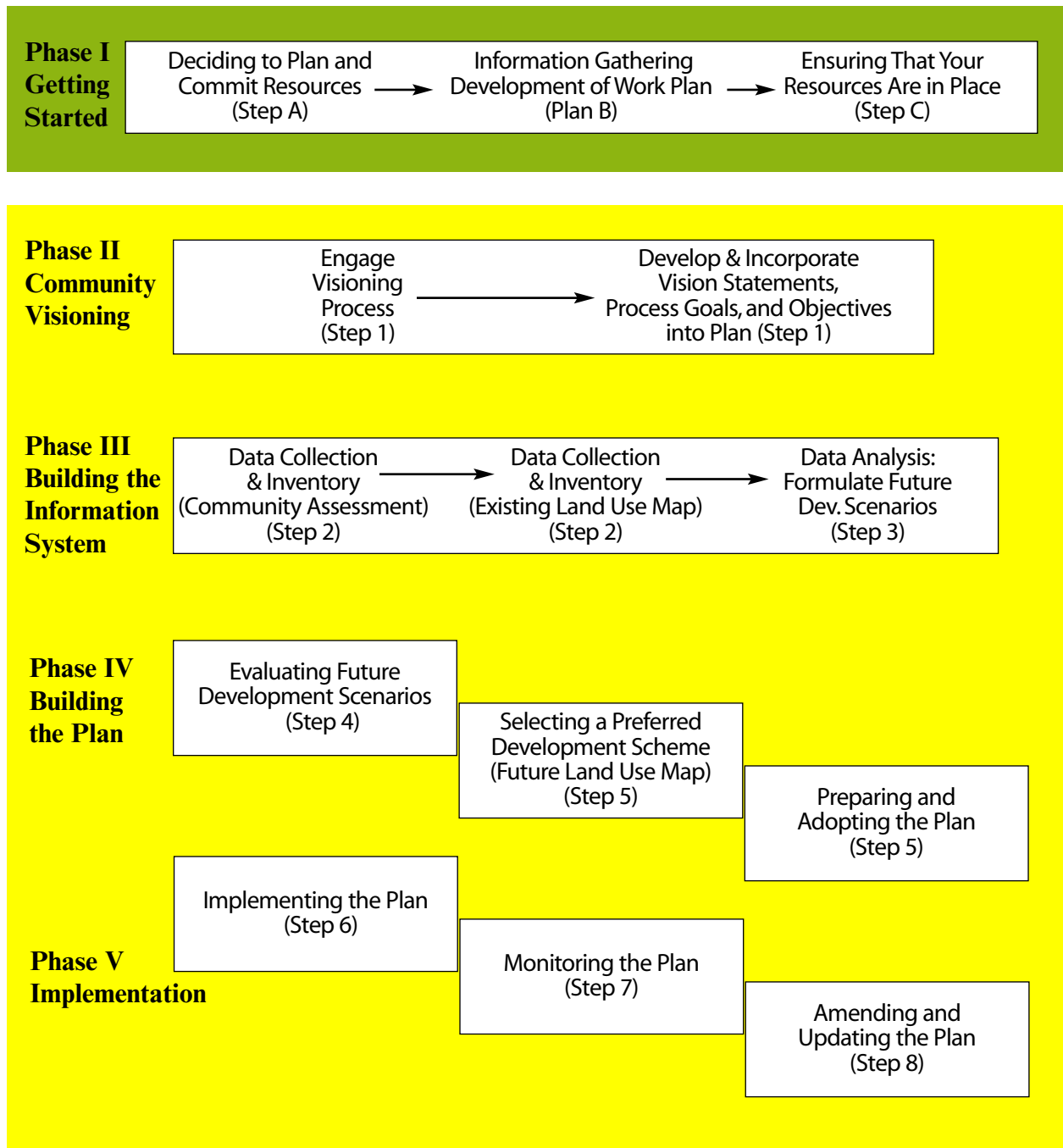
sional planning staff, much of this will not require the board's attention. Conversely, in communities with limited staff resources, the planning board will have a greater management role. Irrespective of staff resources, however, most planning boards will need to deal with the following management issues:

- the planning board's internal organization
- the development of a work plan
- the establishment of a reporting and working relationship with the governing body

Preparing a master plan is not an easy task, but if the process is followed in an organized manner, it can be readily accomplished by almost anyone. How the planning process is managed and organized is a key factor in determining how well a master plan will turn out.

In this handbook, the eight steps of the master planning process have been organized into five phases: (I) getting started; (II) community visioning; (III) building the information system; (IV) building the plan; and (V) implementation. Each of these phases and the eight steps of the planning process are summarized in the following table and outline, as well as in the individual chapters of this handbook. This table is modeled somewhat after the planning process formatted by Daniels, Keller, and Lapping in the *Small Town Planning Handbook*.

The Master Planning Process



Outline of the Organizational Steps Involved in Preparing a Master Plan

The following outline is provided to help guide you through the organizational steps involved in preparing a master plan. For more detailed information about each phase and step in the process,

refer to the individual chapters of this handbook. You can click on any step in the above outline and obtain more detailed information.

Organizational Steps Involved in Preparing a Master Plan

PHASE I: Getting Started

Step A Deciding to Plan and Commit Resources

1. Recognize When It Is Time to Plan

Your planning board has a duty and responsibility as required by state law to prepare and/or update your community's master plan. It is generally accepted by planning professionals that after five years most existing master plans could stand to be updated. However, if your plan is over seven years old and your city or town has experienced significant change, your community most likely needs a new plan.

2. Seek Public Support

Do not assume that everyone within your community recognizes that preparing a master plan is necessary or desirable. While it is ideal to have public support, it is not required in order to proceed. Obviously, however, public support is important and is strongly encouraged.

3. Prepare Cost Survey and Preliminary Budget

Once the decision is made to proceed, the planning board should, in coordination with elected officials, prepare an initial cost survey and a preliminary budget and timeline. The board should also determine: (1) how the plan should be prepared – by volunteers, by staff, by consultants, or by a combination of all three; (2) the type of master plan it wishes to prepare; and, (3) what sections should be included in the plan.

4. Seek Budget Approval

Upon completion of the planning board's preliminary budget, a warrant article or budget request is generally prepared and submitted for public approval at town meeting or city council budget hearings.

Step B Preparing a Work Plan and Sharing It with Elected Officials and the Public

(See the *Summary of Action Steps in Developing Your Work Plan* on page 36)

Step C Ensuring That Your Resources Are in Place

1. Double-check Your Funding and Staff/Volunteer Resources

Once you have the commitment to proceed, verify that your funding, staff, volunteers, consultants (if needed), and equipment are in place. This includes working with your town planner and/or municipal finance department to obtain authority for proper funding expenditures/contracts.

2. Appoint a Master Plan Advisory Committee (Optional)

If desirable, the planning board can appoint a master plan advisory committee to assist with preparing the plan. Responsibilities could include organizing the community visioning process and preparing the community assessment studies.

PHASE II: Community Visioning

The eight basic steps of the master planning process begin here.

Step 1: Community Visioning: Engaging the Public and Developing Vision Statements, Goals, and Objectives

Your community visioning process can be carried out by local volunteers or by the UNH Cooperative Extension Community Profile Program (see <http://ceinfo.unh.edu/commprof.htm>) or by consultants working through the planning board or master plan advisory committee. The desired outcome is to develop community-supported vision statements, goals, and objectives for your master plan.

PHASE III: Building the Information System

Step 2: Data Collection and Inventory: Preparing the Community Assessment and Existing Land Use Map

Typically the planning board, master plan advisory committee, volunteers, staff, and/or consultants prepare your community assessment (a study of population, housing, economic activity, and natural, historical, and cultural resources), as well as the existing land use map of your community. At the same time, data is collected for the various sections of your plan.

Step 3: Data Analysis: Formulate Future Development Scenarios Based on Vision Statements, the Community Assessment, and Land Use Maps

As you prepare your plan, the results of your visioning process and community assessment, in combination with existing land use maps, can be used to identify a variety of future growth and development scenarios for your community. These scenarios can then be laid out and reviewed by your board.

PHASE IV: Building the Plan

Step 4: Data Evaluation: Considering Future Development Scenarios

The evaluation process begins by comparing the advantages and disadvantages of each future development scenario; utilizing your vision statements, information from your community assessment, and existing land use maps; and considering citizen preferences.

Step 5: Selecting a Preferred Development Scheme (Future Land Use Map) and Preparing and Adopting a Plan

Once the growth areas are identified in your community and a preferred development scheme is selected, the future land use map is basically done, and the final draft of the master plan can then be prepared and adopted. Public hearings are held on the plan in accordance with RSA 675:7.

PHASE V: Implementation

Step 6: Implementing the Plan

Typically an implementation strategy is included in a master plan, identifying how, when, and by whom the recommendations of the plan are to be implemented.

Step 7: Monitoring the Plan

After your plan has been adopted by the planning board, it is important to keep track of how well it is being implemented. It should be monitored on an annual basis.

Step 8: Amending and Updating the Plan

RSA 674:3 recommends that revisions to your plan be considered every 5 to 10 years.

What Makes a Good Plan?

The Massachusetts Pioneer Valley Planning Commission's *Planner on a Disc* identifies aspects of a good plan and questions to ask.

- A good plan communicates a sense of place and an understanding of what is special about your community and region.
- It tells a story!
 - What was the community like in the past, and what is it like today?
 - How is the community changing, and what will the community be like in the future, if present trends continue?
 - What are the qualities that give the community a sense of place and that people value?
 - What are the forces of change acting on the community?
- A good plan describes alternative futures and the likely consequences of alternative courses of action.
- It reminds citizens and local officials that no outcome is preordained or inevitable; the choices communities make do make a difference.
- It expresses a compelling vision of what residents desire the community to be like in the future.
- It expresses a community's deepest-held aspirations.
- It inspires and offers hope.
- It presents essential data – but not too much.
- It is not padded with data that is not directly pertinent to the substance of the plan and therefore is not so heavy that people are discouraged from taking it with them to community meetings.
- All figures, charts, tables, and maps contained in the plan are included for a reason, because they shed a light on important issues addressed in the plan. (Tables, charts, and graphs presenting interesting but non-essential data are placed in a separate appendix, rather than in the main body of the plan.)
- It puts forward goals and objectives that are capable of being translated into specific policies and actions.
- It avoids goal statements so general that they cannot be meaningfully interpreted or applied in practice.
- It identifies indicators for measuring progress toward meeting specific goals.
- It is realistic. It does not attempt the impossible. It does not put forward goals and objectives without identifying how those goals and objectives might be achieved.
- It results from the process that was used in preparing the plan.
- It is fair and equitable and attempts to balance competing interests.
- It strives to balance development needs against the need to conserve and protect environmental resources. Its aim is to achieve a pattern of land use and development that is sustainable.
- It lets developers know the type of development the community wants – not just what the community does not want – and encourages development in areas most suitable for development.
- It encourages people to think about what is best for the whole community – not just for their neighborhood or for them individually – and about the interests of future residents as well as those of current residents.
- It is packaged and presented in a way that encourages citizens to want to read it. People care about the places where they live and work. They want to know what is happening (and likely to happen) to their community. Do not discourage them from seeking this information by producing a dull or dry plan.

What Should Be Included In Your Master Plan?

Information is the key to successful planning. A master plan is no better than the data on which it is based. Most of the information included in your plan will be based on the background studies that you prepare. Ultimately, those background studies are presented in chapter format in the master plan.

Most chapters or sections in a master plan include such topics as the natural environment, the local economy, housing, transportation, community facilities, and land use. The goals and objectives guiding the plan, when combined with the vision statements, should provide a clear view of the kind of future your community hopes to achieve. This, in turn, should be reflected in the plan's future land use section – the part of the plan that starts to “put on the ground” the community's preferred future.

State law prescribes that two mandatory sections be included in all master plans. Currently, there is no limit on the total number of sections, nor on the type and amount of information that can be included in your master plan. That is strictly your decision.

Mandatory Sections:

RSA 674:2 II provides that a master plan shall include, at a minimum, the following two mandatory sections:

(a) Vision

Serves to direct the other sections of the plan. This section shall contain a set of statements that articulate the desires of the citizens affected by the master plan, not only for their locality, but for the region and the whole state. It shall contain a set of guiding principles and priorities to implement that vision (for more information, see Chapter 5, “Phase II: Community Visioning”). Click here for a step-by-step guide to the community visioning process.



*Make no small plans, they have
no magic to stir men's (or women's)
blood...Let your watchword be order
and your beacon beauty.*

- Daniel Burnham

(b) Land Use

The section upon which all the following sections shall be based. This section shall translate the vision statements into physical terms. Based on a study of population, economic activity, and natural, historical, and cultural resources, it shall show existing conditions and the proposed locations, extent, and intensity of future land use.

The vision and land use sections form the backbone of the master plan. The studies of population, economic activity, and natural, historical, and cultural resources all lead eventually to the designation of future land development scenarios and the development of a future land use map. This map depicts the general locations, types, and intensity of the community's future land use (for more information, see Chapter 7, "Phase IV: Building the Plan"). **Click here for a step-by-step guide to developing a future land use map.**

Another common element of master plans is the build-out analysis, which is useful for mid-size towns experiencing rapid growth and a dwindling supply of land. This analysis is performed to show how buildable land in a given community could be developed based on the community's existing land use regulations, thereby providing a good idea of the potential for future growth. The build-out analysis can also be used as a tool for evaluating future land use scenarios and developing a future land use map (for more information, see Chapter 10, "Tools and Techniques").

Click here for a step-by-step guide to conducting a build-out analysis.

Other Master Plan Sections:

RSA 674:2 III provides that a master plan may also include a combination of the following thirteen other sections:

1. Transportation
2. Community facilities
3. Economic development*
4. Natural resources*
5. Natural hazards
6. Recreation

7. Utility and public service
8. Cultural and historical resources*
9. Regional concerns
10. Neighborhoods
11. Community design
12. Housing
13. Implementation

**Some elements of these sections may be part of the mandatory land use section in accordance with RSA 674:2. This statute requires that a study of population, economic activity, and natural, historical, and cultural resources be prepared as part of the land use section.*

Generally, the specific sections that you select to include in your master plan will be dependent upon your community's needs; but in all cases, it is highly recommended that your master plan include an implementation section.

The requirements of RSA 674:2 III regarding each of the above thirteen sections are described in the following pages. A summary of what should be addressed in each of these sections is also outlined in the most recent NH OEP Technical Bulletin 3, Master Planning, Summer 2003. Studies related to each of these subjects, or references to them, are generally included in most master plans (for more information about each subject, refer to Chapter 12, "Bibliography/Resources").

1. Transportation

This section considers all pertinent modes of transportation and provides a framework adequate for local needs and for coordination with regional and state transportation plans. Suggested items to be considered may include, but are not limited to, public transportation, park and ride facilities, and bicycle routes, paths, or both.

The basic purpose of this section is to evaluate all modes of transportation within a community and to identify and evaluate major transportation problems and issues.

There are several important reasons to include a transportation section in your master plan. First, roads are one of the key factors in shaping the growth of a community. Development can occur only where there are roads. Where there is a heavy concentration of roads, there is typically a greater quantity of development. Where there is a rural roadway system, there is usually a more scattered development pattern. Second, road maintenance and reconstruction expenditures represent a major cost to communities. A cost-effective road improvement program minimizes local and state highway expenditures.

Since land use and transportation issues are directly related, this section should identify transportation concerns in the context of land use issues where appropriate. Many local officials and planning boards express concern about transportation improvements that tend to promote haphazard growth or sprawl. They seek creative land use solutions to prevent sprawl and thereby manage and preserve transportation improvements for future users.

Transportation planning is a local, regional, and state responsibility. The transportation section should provide a framework adequate for local improvement needs and for coordination with regional and state transportation plans. It should not only address vehicular traffic, but also consider alternative modes of transportation such as pedestrian, bicycle, and public transit. In addition, the effect of the transportation system on the environmental quality of the community should also be considered. Many communities prepare a separate bicycle and pedestrian plan, which is included by reference as part of the master plan.

There are many ways to go about preparing a transportation section. Generally it should include a brief historical context for your city or town's transportation planning to date, including a list of existing and proposed improvements, as well as an overview of issues and concerns. It should also include a generalized inventory of the existing roadway system and highway and functional classification systems, identifying the various charac-

teristics of each section as well as associated traffic volume ranges and issues. Maps should be included depicting this information. A section on alternative transportation modes and an evaluation of your community's road surface management system, if applicable, should also be included. In addition, information about intersection level of service and improvement needs, general traffic hazards, accidents, parking, environmental and aesthetic concerns, and funding needs should be included. Finally, this section should include recommendations.

Helpful Hint: While this section is optional, it is highly recommended if your community is experiencing traffic congestion and there is a significant need for road and intersection improvements. The provision of adequate transportation facilities and services is an important local, regional, and statewide concern. Also, there is a direct relationship between transportation and land use. If your community lacks the expertise or knowledge to prepare a transportation section, a consultant or your regional planning commission can be hired to provide these services. Information can also be obtained from the New Hampshire Department of Transportation web site at: <http://www.nh.gov/dot/>.

2. Community Facilities

This section identifies facilities to support the future land use pattern of subparagraph II (b), addresses the projected needs of the community, and coordinates with other local governments' special districts and school districts, as well as with state and federal agencies that have multi-jurisdictional impacts.

One of the primary responsibilities of local government is to provide adequate community facilities and services for its residents and businesses. The availability and quality of these services is often a major factor in determining the quality of life and general character of a community. Therefore, it is important to consider the effect population and economic growth will have on a community's ability to provide essential public facilities and services for its residents.

The competing demands of maintaining existing facilities and constructing new facilities to service future development can overwhelm the capacity of a municipality to respond effectively to growth. Likewise, the lack of adequate facilities and services can impede future growth and compromise efforts to encourage economic development.

Thus, the purpose of this section is to examine the capacity and deficiencies of your community's existing facilities and services and to identify improvements needed now and in the future. In addition, it should identify the public facilities and services that may be needed to support the future land use vision of your community, linking directly back to the vision and land use chapters of your plan.

Community facilities typically include mostly municipal and public facilities and services. Generally, an inventory is prepared of the community's fire protection and emergency services; police and communications departments; parks and recreational facilities and services; other community recreational facilities, like the YMCA; town or city hall offices; other town or city-owned buildings; community facilities such as colleges and universities; library facilities and services; public works department facilities and services, including solid waste, public water and sewer systems, and highways; cemeteries; and public education. The inventory can be compiled in either or both of two ways: through the distribution of a detailed community facilities survey and/or through personal interviews with department heads and the chairs of all the relevant boards and commissions that have authority over aforementioned facilities and services, such as parks and recreation or the library.

Public education is often separated out in an individual section in the master plan because of its complexity and the need to consider school facility needs in the light of enrollment projections and other considerations. While utilities and public services are entitled to constitute a section of their own, frequently it is sufficient simply to include them in the community facilities section of your plan.

As you go about preparing this section, you should always keep in mind the type, as well as the amount, of information needed. Many communities, particularly large towns and cities, prepare detailed community facilities needs assessments (including space and locational assessments) for capital projects and capital improvement programming needs. However, the same level of detail is not necessary in a master plan. More detailed studies can be referenced or utilized, but the primary task should be to prepare a generalized inventory describing each facility and service type and identifying future needs.

This task can easily be accomplished by preparing a community facilities survey (**click here for an example**). Using this survey along with population projections, you should be able to identify current needs and project the type and level of services that will be needed in the future to support your community's growth and development. A number of adequate public facilities standards are available for each type of community facility and service (for more information, see Chapter 12, "Bibliography/Resources"). Use these standards to assess available capacity and identify current deficiencies and future needs.

A cost-of-community-services study is not a necessary requirement in the community facilities section. However, many communities are beginning to take a look at the cost-revenue impacts of broad land use categories on a community. They are engaging consultants to prepare studies that set the stage for future impact fee ordinances (see Chapter 12, "Bibliography/Resources," for references). This information is helpful in providing an assessment of a community's fiscal situation with regard to different types of land use at a particular point in time. It might also help to justify certain land and economic development policies that favor increased industrial development as a means to help reduce the local tax burden. Generally such policies can be justified in a master plan as part of the land use analysis and the development of the future land use plan.

A community facilities section in a master plan can be organized by each facility type and depart-

ment, or it can be set up in a general issues, goals, and recommendations format, with most of the inventory and data included in the plan's appendix. In either case, the key information and findings should be described in this section.

Helpful Hint: *While it is optional, it is highly recommended that you include a community facilities section in your master plan if your community is growing and there is a need for new or expanded facilities and services. There are always going to be facility needs and concerns in a community. Ultimately these issues need to be identified, and future projects planned, through a Capital improvement program (CIP). This section can also be titled "Municipal and School Facilities" or "Public Facilities and Utilities," depending upon inclusion of education and public utilities information.*

3. Economic Development

This section proposes actions to suit the community's economic goals, given its economic strengths and weaknesses in the region.

The main purpose of the economic development section of a master plan is to analyze the local economy. Economic health is vital to a community, which suffers without it. In most cases, a municipality will not experience growth unless its local and regional economy is prospering.

An economic assessment is a general overall evaluation of a community's economic conditions. It may include an inventory of existing businesses, though typically it does not include a detailed description of each business or industry. An assessment generally summarizes the products manufactured within the community and the number and kinds of manufacturing firms and commercial services in existence, as well as trends in employment. Businesses gained over the past decade are usually mentioned, and the future of the local economy is briefly discussed.

An economic base study, on the other hand, can be used to help a community create policies and programs that can facilitate economic growth.

First, a detailed evaluation of the community's economy is conducted. The community's economic strengths and weaknesses, opportunities and threats, are also identified. Next, a detailed inventory of all the businesses within the community is conducted, classifying each business relative to its market position within the local and regional economy. This inventory assesses how people in the community earn a living and the kinds of businesses and industries the community needs and could support, considering existing conditions and labor skills. The economic base study also includes employment projections. These estimates can provide a useful benchmark for the community in planning for housing, schools, utilities, and other services.

As part of the economic development section, a community and its economy should be compared to its neighbors, other similar-sized communities, the county or region, and the state as a whole. Economic studies are most useful to local decision makers when such comparisons have been made.

In addition, an economic development section should include a statement of economic goals and objectives that summarize the improvements local residents and businesses would like to see. Economic goals typically focus on expanding the local property tax base and increasing income and employment opportunities by diversifying the local economy. In rural communities, a major goal might be to provide good jobs for young adults, so that they do not have to leave the area to find employment opportunities. Economic objectives might concentrate on specific incentives, such as property tax breaks and public funding of sewer and water lines to attract and retain the kind of businesses and jobs the community wants.

The economic development section should, at the very least, include a basic introduction to, and description of, the community's economic issues and concerns. This introduction should be followed by a general economic assessment or economic base study that describes current and future conditions and provides a summary of findings and recommendations.

Helpful Hint: *It is mandatory that you prepare a study of economic activity as part of the master plan's land use section (see RSA 674:2 II. B.). If a detailed economic study containing a wide variety of charts, tables, and projections has been prepared, this information can be included in an appendix and only the most important data shown in the economic development section or the land use section of your plan. If municipal financial information is included as part of the economic analysis, the section can be titled "Economic Conditions and Municipal Finances." It is recommended that towns experiencing poor economic growth prepare this more detailed economic development section to supplement the basic study required for the land use section. If your community lacks the expertise or knowledge to prepare such a study, a consultant or your regional planning commission can be hired to provide these services. Assistance can also be obtained from the New Hampshire Department of Resources and Economic Development (DRED) at: <http://www.dred.state.nh.us>*

4. Natural Resources

This section identifies and inventories any critical or sensitive areas or resources, not only those in the local community, but also those shared with abutting communities. It provides a factual basis for any land development regulations that may be enacted to protect natural areas. A key component in preparing this section is to identify any conflicts with plans of abutting communities. The natural resources section of the master plan should include a local water resources management and protection plan as specified by RSA 4-C:22.

A study of a community's natural environment is an essential element of a master plan. Some of the most pressing environmental concerns are: (1) open space protection; (2) preservation of agricultural lands and floodplains; (3) water resources; (4) wetlands, wildlife habitats, and other ecologically significant areas; and (5) hillsides and steep slopes. Natural resource information is needed to provide a factual basis for any land development regulations that may be enacted to protect your community's natural areas.

Natural resources include the soil, water, forests, minerals, geologic formations, and plant and animal species found within a community's borders. An inventory of the quantity and quality of these resources can help a community identify areas that are suitable for development, areas that can support limited development, and areas that should be protected from development (refer to the Basic Natural Resource Inventory section in Chapter 6, "Phase III: Building the Information System," for more information). It is recommended that this inventory include information on specific sites and land ownership patterns. Ownership patterns show who owns the natural resources and the number and size of the parcels. Land parcels can be identified from local tax maps.

Once an inventory has been completed, the natural resources can be prioritized for protection based on a number of factors, such as size, rarity, diversity, and fragility and whether the resource is renewable or irreplaceable. A community's natural resources can also be rated based on how threatened the site or resource is with respect to development encroachment. Your regional planning commission (**click here for list of regional planning commissions**) may have already worked with your community in prioritizing your natural resources as part of the State of New Hampshire, Department of Environmental Services (DES) Regional Environmental Protection Program (REPP). (Information about the REPP can be found at: <http://www.des.state.nh.us/REPP/>)

Most, if not all, of the natural resources in your community should be presented on a map or a series of maps along with a brief narrative description. Typical maps might include a topographical map; a wetlands map; a water resources map; an aquifer map; a special flood hazards map; and a special features map (for more information, see the Basic Natural Resources Inventory section in Chapter 6, "Phase III: Building the Information System"). When these maps are combined, a series of summary analysis maps can be prepared, from which a map of environmental sensitive areas and a map of natural and community hazards can then be developed. These summary analysis maps

will assist you in the formulation of your community's future land use map. **Click here to launch the step-by-step guide to preparing a future land use map.**

There is no one correct way to organize this chapter, but generally it should include an overview of existing conditions, identify issues and concerns, and discuss the need to protect the community's natural resources. It should also include a summary and recommendations.

Helpful Hint: *It is mandatory that a study of natural resources be included in the land use section (see RSA 674:2 II. B.). If a detailed natural resources inventory containing a wide variety of data, charts, and tables has been prepared, this information can be included in an appendix, with only the most important data shown in the natural resources or the land use section of the plan. If your community has adopted an open space plan, this plan should be referenced as part of the master plan. If your community has adopted a local water resources management and protection plan as specified in RSA 4-C:22, this plan also should be referenced as part of the master plan.*

5. Natural Hazards

This section documents the physical characteristics, severity, frequency, and extent of any potential natural hazards to the community. It should identify those elements of the built environment at risk from natural hazards, as well as the extent of present and future vulnerability that may result from current zoning and development policies.

The natural hazards section should prioritize the various risks facing your community and then look at possible ways to avoid or minimize undesired effects. The result is a hazard mitigation plan and strategy for implementation. Your community's current zoning and subdivision regulations may in fact encourage development in areas where natural disasters have occurred in the past and have the potential of occurring again.

The addition of a natural hazards section to a master plan is a fairly new development, although occurrences of flooding and other natural disasters

have been documented in master plans of the past. The primary focus of the natural hazards section is to address the need for hazard protection and mitigation in community planning. Communities that wish to become eligible for hazard mitigation grants are required to prepare a detailed hazard mitigation plan under the Disaster Mitigation Act of 2000 (for more information about hazard mitigation plans contact the New Hampshire Bureau of Emergency Management at: <http://www.nhoem.state.nh.us>). This plan is typically prepared separately from the master plan. However, there is no reason why it cannot be referenced and/or summarized as part of your master plan.

The organization of the natural hazards section will depend upon the types of natural hazards that are included in your plan. Generally speaking, it should be organized around each identified hazard – the extent and severity of the hazard and its threat to the community. A summary and recommendations should also be included.

Helpful Hint: *If your community has adopted a hazard mitigation plan, it should be referenced and summarized as part of your master plan. If not, include a natural hazards section, particularly if your community has experienced repeated flooding, wildfires, or other natural disasters. (Including a natural hazards section in your master plan is not sufficient in itself to qualify your town for hazard mitigation funding.)*

6. Recreation

This section covers existing recreation areas and addresses future recreation needs.

Parks and recreational facilities are major community features. Parks provide open space for residents and visitors and enhance a community's appearance. The amount of parkland needed or desired will vary widely from one community to the next. This is also true for the type and size of various recreational facilities.

To determine existing and future park and recreation needs, this section should document the number of acres of parkland and show all park

and recreational facilities on a map. It should also describe the types of recreational facilities located at both the parks and public schools and their conditions. These facilities might include playgrounds, swing sets, tennis and basketball courts, swimming pools, baseball and softball fields, picnic areas, nature trails, bicycle paths, and other facilities. This will provide some initial idea of whether new park and recreation facilities are needed.

It is relatively easy to describe existing recreation areas and facilities and to show them on a map. It is not so easy, however, to address what your community's future recreation needs might be. The need for park and recreation facilities can be assessed in a number of ways, including the drawing of comparisons with state and national standards. Local officials also can be called on to assess need. State and national standards were developed in the early 1980s by the National Recreation and Park Association (NRPA), based on national perceptions at the time (see NRPA's web site at: <http://www.nrpa.org/>). They reflect broad objectives gleaned from the stated preferences of large groups of people. Consequently, they do not take into account the particular circumstances and conditions of any specific community.

Your community's need for recreational facilities will be different from national and state norms due to its demographic characteristics and the variety of recreational opportunities available nearby. The most accurate indication of the demand and need for facilities is based on the needs expressed by residents and the observations of local officials in your community. This information can be obtained directly from your community survey (for information about community surveys, see Chapter 10, "Tools and Techniques").

Be aware that New Hampshire has mostly abandoned use of state and national recreational standards in favor of the NRPA's 1996 publication called "Park, Recreation, Open Space, and Greenway Guidelines." This publication has made

a specific attempt to lead communities away from the previous population ratios, stating that communities should focus instead on determining their own desired "levels of service" for different recreational facilities. While the population-based recreation standards were presented in the state's 1994 SCORP and 1995 "Guide to Municipal Recreation," these standards are not part of the state's recently completed 2003-2007 SCORP (this document is available at <http://nh.gov/oep/resources.htm>). The New and Hampshire Office of Energy Planning hopes to update the 1995 "Guide to Municipal Recreation" over the next several years. (For more information about these standards also see the NH OEP web site at: <http://www.nh.gov/oep>.)

It is fairly common, particularly in smaller communities, to find the recreation analysis included as part of the community facilities section. The preparation of a separate recreation section, however, may be necessary for larger communities and for those communities that are experiencing recreation problems and concerns.

Organization of this section in a master plan should begin with a brief introduction and overview of the municipality's parks and recreation program and a review of the general park and recreation issues of the community. This should be followed by the inventory and needs assessment of existing facilities and programs, an identification of future park and recreational facilities, and a summary and recommendations.

Helpful Hint: While a recreation section in your master plan is optional, it is highly recommended if the provision of adequate park and recreation facilities is a major concern within the community. Otherwise, you can include a parks and recreation section within the community facilities chapter of your plan. NH OEP's new 2003-2007 SCORP guide should be used as a reference.

7. Utility and Public Service

This section analyzes the need for and shows the present and future general location of existing and anticipated public and private utilities, both local and regional, including telecommunications utilities, their supplies, and facilities for distribution and storage.

A utility and public service section is meant to document existing service conditions, distribution areas, and system capacities and, where utility expansions are proposed, to address existing needs and anticipated future growth and development. Each of these utilities can be described and mapped in a general sense. It is not necessary to obtain detailed utility maps at the parcel level.

The utility and public service section is needed primarily to support the future land use plan of your community, as it links directly to the vision and land use chapters. Typically an inventory is prepared and each utility and public service is described. Much of this information can be collected as part of the community facilities survey of municipally owned facilities. It may be necessary to obtain information about electric service, natural gas, and telecommunication facilities directly from those utilities, unless this information is shown on the community's public utility maps.

One of the most important goals of this section is to determine the capacity needs and future demands of municipally owned public water and sewer systems, if such systems exist. Typically this determination is based on population and housing projections, as well as such land use considerations as the amount and location of commercial and industrial building space. In smaller communities, this information can be collected and easily included in a master plan. In larger municipalities, however, separate facility studies are usually prepared, in accordance with the size and complexity of the systems. If this is the case, these studies can and should be referenced in the utility and public service section.

The organization of the utility and public service section should include a brief description of each utility, existing usage, service distribution, capacity, proposed improvements, and identified future expansion

needs. Current expansion policies for new development should also be described, as well as overall findings and recommendations. It is not absolutely critical that information about such private utilities as electricity, natural gas, and telecommunications be included. The most important utility information concerns the public and private water and sewer systems in the community. Without these basic services, economic growth and development cannot occur.

***Helpful Hint:** The inclusion of a utility and public service section in your master plan is extremely helpful in ensuring the timing and coordination of future utility expansions, particularly municipal water and sewer systems, with your community's future land use vision and plan. Information about utility and public services can be combined with the community facilities chapter in your master plan, rather than set apart as an additional chapter. The utility and public services section can be focused primarily on municipally owned utilities.*

8. Cultural and Historical Resources

This section identifies cultural and historical resources and protects them for rehabilitation or preservation from the impact of other land use regulations, such as those involving housing and transportation.

The basic purpose of this section is to consider how to preserve a community's historical character and enhance its cultural resources in order to meet the needs of present and future residents. It should also help shape the development of the future land use plan and map.

It is likely that your local historical society has prepared an inventory of properties and buildings eligible for listing on the National Register of Historic Places (see web site at: <http://www.cr.nps.gov/nr/>) as well as the New Hampshire State Register of Historic Places (see web site at: <http://www.state.nh.us/nhdhr/barnstatereg.html>). This survey of properties and buildings should be mapped and then used to help formulate the future land use plan and map. If there are areas of conflict, those issues should be explored and addressed as part of the development of your master plan.

Additionally, your regional planning commission may have prepared local resource protection priorities data layers, which show significant properties and sites within your community for future protection. These layers were compiled as part of NH DES's Regional Environmental Planning Program (REPP). The data layers, updated in fiscal year 2004, were initially designed to assist the state's Land and Community Heritage and Investment Program (LCHIP). The LCHIP web site is located at: <http://www.lchip.org/>.

The cultural and historical resources section should also be used to document and address your community's cultural and historic preservation programs. Even though historic districts are listed on the National Register of Historic Places, they may not be locally zoned as such. If your community has not yet established a heritage commission or a historic district commission as provided for by RSA 674:44 or 674:46, this issue can be addressed in your master plan.

While there is no established organizational format for the cultural and historical resources section, it should start off with a brief introduction and history, leading into a discussion of the community's primary cultural and historic preservation issues and concerns. A summary of findings and recommendations should also be prepared.

Helpful Hint: *It is mandatory that a study of historical and cultural resources be included as part of a master plan's land use section (see RSA 674:2 II. B.). If the community already has an inventory of historic properties, do not prepare a new survey. However, if no inventory exists, this cost should be factored in as part of the work program. A study of historic and cultural resources can be addressed as a separate section, or it can be included as part of the natural resources, open space, or recreation sections of your master plan. It can also be included as part of an overall conservation or preservation chapter. Historic preservation assistance can also be obtained from the New Hampshire Division of Historical Resources at: <http://www.state.nh.us/nhdhrl/>.*

9. Regional Concerns

This section describes the specific areas in the municipality of significant regional interest. These areas may include resources wholly contained within the municipality or bordering, shared with, or both, neighboring municipalities. Items to be considered may include, but are not limited to, public facilities, natural resources, economic and housing potential, transportation, agriculture, and open space. The intent of this section is to promote regional awareness in managing growth, while fulfilling local vision statements.

The primary purpose of this section, as stated above, is to consider the regional impacts that specific areas within your community may have on neighboring municipalities. These involve issues such as public facilities, natural resources, economics and housing, transportation, agriculture, and open space. The impact or range of influence of these concerns can cross municipal lines.

The regional concerns section in a master plan typically includes a brief description of the regional setting of the community, identifies the names of bordering towns and cities, and documents the primary access routes to a community and their size. It also identifies the specific areas within a community that face issues or concerns of a regional nature that cross community lines.

It is important to note that RSA 674:1 also provides that a master plan may include consideration of any areas outside the boundaries of the municipality that, in the judgment of the planning board, bear a relation to, or have an impact on, the planning of the municipality. The regional concerns section of a master plan provides an opportunity to explore such areas.

While there are no specific guidelines for when, and to what extent, a planning board may consider specific areas outside its jurisdiction in a master plan setting, the key words here are that it must "bear a relation to" or "have an impact upon" the planning of the community. Thus, the planning board must exercise some judgment in this area.

Helpful Hint: While a regional concerns section in a master plan is optional, it is highly recommended that it be included if a community has issues and concerns of a regional nature, or if there are areas in neighboring towns or cities that are having an impact on the community. If there are no pressing regional issues or concerns, do not prepare a separate section. Basic information about the regional setting of a community can be addressed in the introduction or land use section of the plan.

10. Neighborhood Plan

This section focuses on a specific geographical area of local government that includes substantial residential development. This section is a part of the local master plan and shall be consistent with it. No neighborhood plan shall be adopted until a local master plan is adopted.

The primary purpose of this section is to provide a means for the incorporation of small area plans, or neighborhood plans, within the master plan (for more information about small area master plans, see Different Ways to Plan in Chapter 9, “Basics of Planning Theory”). It might be necessary to prepare a detailed plan for a specific geographical area or neighborhood within a community because significant changes are occurring or anticipated.

Alternatively, the community may be divided into regions or neighborhoods, and detailed plans prepared for these areas as part of the master plan. Although such plans contain specific recommendations for the regions or neighborhoods being studied, they must be consistent with the overall master plan. For that reason, the provision has been added stating that “no neighborhood plan shall be adopted until a local master plan is adopted.” This ensures that the individual neighborhood plans agree with the community-wide plan.

As a rule, small-area plans should follow the format of all other chapters of the master plan, so that there is consistency throughout.

Helpful Hint: If you have pressing issues or concerns regarding specific areas or neighborhoods within the community, or if there is a need to present detailed information at the neighborhood level, then include a neighborhood plan in the master plan. If this is not the case, it is probably not needed. Including this plan requires a commitment to collect and map more information than would otherwise be needed at the community-wide scale.

11. Community Design

This section is intended to identify positive physical attributes in a municipality and provide design goals and policies for planning in specific areas, to guide private and public development.

A community design section is a relatively new concept for master plans. Most community design plans are prepared for specific areas within a community, such as its downtown, or specific transportation corridors. Community design deals with the built environment and its overall appearance, function, and quality. It seeks to enhance and improve the visual and physical quality of a place through design techniques and architectural treatments. A charrette is an excellent example of a practical community design exercise (for more information about charrettes, see Chapter 8, “Implementation,” and Chapter 10, Tools and Techniques”).“ Participation in a charrette or similar community design exercise typically results in a community design plan, which would ideally fit into this section of the master plan.

The community design section affords an opportunity within a master plan to consider and recommend the development of community-wide appearance standards and/or specific design guidelines for buildings, street corridors, neighborhoods, historic districts, and downtown areas, as needed. These standards or guidelines can then be incorporated into site plan or historic district regulations.

The main emphasis of this section, however, should be directed toward identifying the positive

attributes, features, buildings, and spaces that make up a community. Design goals and policies for development, redevelopment, or restoration can then be generated from this information.

Helpful Hint: *While the community design section in a master plan is optional, it is recommended that it be included if a community is concerned about its overall character and appearance. As part of the development of this section, be prepared to include the cost of design professionals in your work plan. If your community has specific community design plans already in place, these plans can be summarized and/or referenced in this section.*

12. Housing

This section assesses local housing conditions and projects future housing needs of residents at all income levels and of all ages in the municipality and the region, as identified in the regional housing needs assessment performed by the regional planning commission pursuant to RSA 36:47, II, and integrates the availability of human services with other planning undertaken by the community.

Housing is one of the most important elements of a master plan, after the vision and land use sections. It is directly related to economic as well as population conditions. The provision of adequate housing is a primary need in every community. If a community desires to have economic growth, housing will be needed for residents of differing income levels, both single-family and multi-family, and for purchase or rent. The housing section presents a useful picture of the community's current housing capacity and demand and what sort of housing will be needed and where it should go in the future.

The housing analysis typically begins by identifying changes to the community's housing supply and composition over the past decade or so. Data is also presented regarding selected characteristics of the housing stock, in order to evaluate its adequacy and identify needed improvements. Typical housing characteristics and issues addressed in this section include existing housing supply, changes in housing mix (single-family, multi-family,

manufactured), housing conditions, housing costs and affordable housing, and potential housing growth within the community (housing projections).

The organization of the housing section should begin with an overview of the current housing characteristics of your community, as listed above. It should then consider future conditions based on population and housing projections and wrap up with a summary and recommendations. It is important that the housing section identify the housing goals of your community.

These goals should address a number of factors, such as the demand for land for housing construction versus other land use needs, the provision of a variety of housing types at a range of different costs, sustaining a rate of growth that does not overwhelm municipal/school services, considering the housing needs of all age groups within the community, and maintaining the existing character of the community.

Additionally the housing section should address the issue of affordability. The community's fair share of low- and moderate-income housing can be obtained from the regional planning commission's housing needs assessment. New Hampshire's planning laws require, for the purpose of assisting municipalities in complying with RSA 674:2 III (m), that each regional planning commission compile an assessment of regional housing needs for persons and families of all levels of income (see RSA 36:47 II.). This regional housing needs assessment must be updated every five years and made available to all municipalities in the planning region.

There is also a new method for determining a community's fair share of low and moderate income housing, based on the New Hampshire Housing Needs Assessment prepared for the New Hampshire Housing Finance Authority (NHFFA) by Bruce C. Mayberry, Planning Consultant, dated April 25, 2003, and revised July

17, 2003. (Information about this method and proportionate distribution of housing in municipalities is contained in Chapter 10 of this hand-

book, “Tools and Techniques.”)

Helpful Hint: *It is highly recommended that a housing section be included in your master plan, because housing is directly affected by population growth and economic conditions. This section is also directly related to the development of a future land use plan and map. The housing section can stand alone in a master plan, or it can be combined with the community’s population demographics.*

13. Implementation

This section is a long-range action program consisting of specific actions, time frames, descriptions of land development regulations to be adopted, and procedures, and allocating responsibilities, which the municipality may use to monitor and measure the effectiveness of each section of the plan.

The purpose of the implementation section is to organize all the recommendations and actions of the master plan into a manageable implementation program. In order for your plan to be successful, an effective implementation strategy must be established. This can be accomplished in several ways.

The standard technique is to prepare an overall spreadsheet identifying each action and recommendation by category or topic and including the party responsible for its implementation and the timeframe – short-term (0 to 3 years), mid-term (4 to 6) and long-term (8 to 10). The resulting table then contains recommendations and actions that are scheduled based on their implementation priority. This provides the community with an overall picture of who is responsible for carrying out recommendations and when action should be taken. This table can also be helpful when preparing a 6-year capital improvement program (CIP).

Another approach is to prepare a narrative implementation section that identifies all the issues and recommended actions by topic, and includes, at the end of each narrative, a separate implementation table with the recommended action, time frame, and party responsible for implementation. The end result is that the plan will contain a num-

ber of small, individual tables versus one large, overall table.

After you have finished this section, one of your most important management tasks is to notify all the parties identified as being responsible for one or more specific implementation actions. Too often, once the plan has been completed, it is distributed with no mention of the need for follow-up or monitoring. This is a critical error that should be avoided.

Helpful Hint: *An implementation section is a fundamental part of any master plan. Without this section, no master plan would be complete. It is strongly encouraged that copies of the adopted master plan be forwarded to all the parties responsible for its implementation. This will help to ensure that these parties have been informed of their implementation responsibilities. Additionally, it is important that all the appropriate implementation actions and recommendations in your plan be prioritized and included within your CIP, as applicable.*

Supplemental Master Plan Sections

In addition to the thirteen sections described above, other sections may be included in the master plan. For example, a section on construction materials summarizes all the known sources of construction materials available within your community such as road fill, sand and gravel deposits, and topsoil, including the locations and estimated extent of existing earth excavations that have been granted permits under RSA155-E, as well as reports filed pursuant to RSA155-E for non-permitted excavations.

It is becoming increasingly popular to include a section on smart growth and the application of smart growth principles in a community’s master plan, as provided for by RSA 674:2 I. The smart growth movement is growing across New Hampshire, and it is being promoted by the NH OEP as an important master planning concept (for more information about smart growth, see Chapter 11, “Planning Concepts and Themes”). The Governor’s Office and NH OEP have recent-

ly opened a new smart growth web site at: <http://www.nh.gov/osp/SmartGrowth/index.htm>.

The NH OEP has also produced an informative compact disc, “Achieving Smart Growth in New Hampshire,” dated April 2003 (**click here for link to the bibliography**). This disc illustrates the challenges of smart growth. It identifies eight basic principles and reviews three pilot communities that have considered smart growth options within their development and planning efforts

To supplement NH OEP’s work, included on this handbook’s accompanying CD-ROM is a smart growth audit, or checklist, that communities can use to review their policies, regulations, and other related community development programs for the potential application of smart growth principles (**click here to launch the smart growth audit**). This audit will also be helpful in generating the data you need to prepare a smart growth section in your master plan.

The number of sections and the content of a master plan can vary considerably depending upon the concerns, facilities, services, and infrastructure needs of your community. Obviously, the decision

of what to include is directly affected by how much information is needed and how much time and money you have to prepare your plan. Ultimately, what to include or not include should be based at least in part on

- your budget
- the kinds of issues and problems your community is facing
- your community’s goals and objectives
- your past planning experience (what was and was not included in your previous plan)
- estimated changes in your community’s overall economic base and future population (as measured by population and employment data)
- availability and suitability of land within your community to support future development (as measured by a land use survey and build-out analysis)
- adequacy of your community’s public facilities and services to meet the demands of future populations and new commercial/industrial development
- the planning approach selected and the type of master plan the board chooses to prepare

Phase I: Getting Started

This chapter explains Phase I of the planning process – getting started. It describes how to begin and what should be considered in the development of a work plan. This is the initial planning work that needs to be done before embarking on the eight basic steps of the master planning process.

Step A: Deciding to Plan and Commit Resources

1. Recognize When It's Time to Plan

Your planning board has a duty and responsibility, as required by state law, to prepare and/or update the community's master plan. It is generally accepted by planning professionals that after five years most existing master plans could stand to be updated. However, if your plan is over seven years old and your city or town has experienced significant change, your community most likely needs a new plan (**[click here for guidance about when you should update an existing plan](#)**). There may also be pressing issues facing your community that need to be addressed, and preparing a new plan or updating your existing plan provides an opportunity to address them. Ultimately, it is the responsibility of your planning board to determine when it is time to prepare, amend, or update your master plan. Your board should be aware of this responsibility and of the importance of maintaining a viable plan.

2. Seek Public Support

Do not assume that everyone within your community recognizes that preparing a master plan is necessary or desirable. While it is ideal to have public support, it is not required in order to proceed. Obviously, however, public support is important and strongly encouraged.



*A journey of a thousand miles
begins with a single step. - Confucius*

One of the best ways to obtain public support is through education. This can be accomplished by reviewing the master planning requirements of the state statutes and explaining the benefits of planning (for guidance in this area, refer to the sections on Why Communities Plan and Why Should Your Community Want to Prepare a Master Plan in Chapter 9, “The Basics of Master Planning Theory”).

Ultimately, public support for the development of a master plan in a small town will be reflected by a vote of approval to proceed at town meeting, or at a public meeting of the planning board or board of selectmen. For larger towns and cities, this may not be necessary, as the commitment to proceed is strictly a decision of the planning board and/or the city council.

3. Prepare Cost Survey and Preliminary Budget

The master planning process begins when the planning board and elected officials in a community make the commitment to prepare a new master plan or update an existing plan and the townspeople vote to appropriate the funds. Typically, the planning board conducts an initial survey of expected costs and prepares a preliminary budget and timeline. The governing body then makes a recommendation that the town should vote to support it. As part of this process, the planning board must also determine how the plan should be prepared – by volunteers, by staff, by consultants, or by a combination of all three. Additionally the board should determine the type of master plan it wishes to prepare and what chapters should be included (refer to Chapter 3, “What Should Be Included in Your Master Plan,” as well as the section on Different Ways to Plan in Chapter 9, “The Basics of Planning Theory”).

4. Seek Budget Approval

In most small towns, funding for master plan development requires voter approval of a warrant article at town meeting. In large towns and cities, funding must be appropriated in the municipality’s annual budget. Some communities carry funds over, year to year, to build up a reserve account in an amount sufficient to undertake the project. Large cities often appropriate the necessary funding within the planning board’s or planning department’s budget. It is not uncommon for small towns to establish a master plan fund within their capital improvement program (CIP).

Step B: Preparing a Work Plan and Sharing It with Elected Officials and the Public

Once the decision is made to proceed and the community votes to commit funding to the planning process, the planning board prepares a work plan that it shares with elected officials and the public. A work plan helps with organization and management of the planning process. It also helps in the development of a request for proposals (RFP) if a community finds that it needs consulting services.

Everyone has limited time and resources and needs to plan wisely how to use them. It is important to remember that (1) there may be other plans and planning studies already prepared, and (2) the master planning process in New Hampshire is governed by state laws and local codes. Accordingly, the initial preparation work requires a thorough understanding of past studies and of the state’s legal requirements. The action steps for developing a work plan are described in the following pages. A summary is also provided at the end of this section.

Action 1: Search Out and Examine Past Plans and Planning Studies

Before setting out to prepare your plan, collect and examine past plans and planning studies that have been prepared for your community. It is possible that the same problems and issues that confront the community today were recognized as problems in the past, and that the recommendations and solutions for addressing those problems are still applicable today.

Take time also to review the current regional plans prepared by the regional planning commission and other regional planning studies and reports that might have a bearing on your community. These plans can provide a broad framework upon which to develop an effective local plan.

Action 2: Research Applicable State Laws and Your Local Codes

This is an absolute necessity. This handbook contains the text of all the New Hampshire planning statutes (RSA 674:1 through 674:4) related to the preparation, adoption, and amendment of a master plan (**click for link to NH planning statutes found at: <http://nh.gov/oep/laws/index.htm>**). These statutes are:

- RSA 674:1 Duties of the Planning Board
- RSA 674:2 Master Plan; Purpose and Description
- RSA 674:3 Master Plan Preparation
- RSA 674:4 Master Plan Adoption and Amendment

Action 3: Understand the Planning Process and the Different Types of Master Plans

It is absolutely essential to gain an understanding of the variety of ways that a master plan may be prepared. There is no one right way; there are several ways to plan and several types of master plans. What works best for one community may not be ideal for another. Every community is different and has its own specific needs. It is the responsibility of the planning board to determine what type of plan would be best for the community and how to go about preparing it.

The traditional approach to preparing a plan is the basic five-step process outlined by the NH OEP (see NH OEP Technical Bulletin 3, *Master Planning, Summer 2003*). The first step is community visioning. The second step is data collection and inventory. The third step is analysis and evaluation. The fourth step is plan preparation, including the evaluation of alternatives and the development of recommendations. The fifth and final step is implementation of the plan, which may include revisions to zoning ordinances or adoption of a capital improvement program. This traditional process is generally sequential, with each step begun only after the preceding step has been completed.

The contemporary approach is to bring citizens into the planning process early on, to identify key issues and to engage in discussions about the community's future through community visioning and other citizen participation techniques. The process continues with the bulk of the data collection and analysis targeted at key issues identified through the public dialogue. This process seeks to achieve consensus early on. It may seek approval of some implementation actions before other issues are even addressed. As a result, various issues are identified and addressed at different times while the plan is being prepared. It is a revolving, continuous process that does not appear to have a beginning or an end.

The continuous planning process has several advantages. People are actively engaged around high pri-

ority issues, without having to wait for data collection and analysis. Further, the continuous process uses implementation as both a learning experience and a reward mechanism. As people see things accomplished, they gain satisfaction and, as a result, are more likely to stay with the planning process.

The disadvantage is that this approach may lose one important characteristic of the master plan – the comprehensiveness that draws the connections between all the elements and policies in the plan. Some would argue that true comprehensiveness is never achieved. We live in a dynamic world with too much change ever to achieve a grand comprehensive linkage among all the parts.

The planning process will most likely be influenced by the type of professional assistance that is employed. Professional staff may end up following the revolving, continual process by necessity, since they are frequently interrupted by crises and the putting out of brush fires. A consultant, on the other hand, has a block of uninterrupted time that makes the traditional sequential process more realistic.

This is not to suggest that one planning process is better than the other, or that the characteristics of staff and consultants might not be reversed upon occasion.

It is important to be aware of the different types of master plans that can be prepared so that the best type of plan is selected for the community. There are five basic types of master plans: (1) the comprehensive master plan, (2) the small area master plan, (3) the functional master plan, (4) the strategic master plan, and (5) the abridged master plan (for more information about each type of plan, refer to the section Different Ways to Plan in Chapter 9, “The Basics of Planning Theory”).

While it is not an absolute requirement to select one type of master plan over another, it is helpful to have a certain type in mind. Because there are advantages and disadvantages associated with each type of plan, it is important to consider each one carefully and select the one that will be most suitable.

Action 4: Research and Determine the Contents of Your Plan

As part of the development of your work plan, it is essential to research and decide upon the contents – the types and number of sections to include in your plan. Other than the vision and land use sections, which are mandatory, there are thirteen other sections that can be included, ranging from regional concerns and smart growth to neighborhoods and community design (for a complete description of these sections and advice on what to include or not include in your plan, see Chapter 3, “What Should Be Included in Your Master Plan”).

Action 5: Research the Merits of Citizen Participation

Another important task is to educate the planning board about the merits of different types of citizen participation. Citizen participation is essential if the planning process is to be successful. An inability to achieve public consensus about the future of the community is often a fundamental reason why planning fails. To be successful, planning must reflect the needs and desires of the citizens who live and work in the community. Thus, one of the primary challenges facing a planning board involves developing an effective strategy for getting citizen input during the planning process.

Citizen participation is an emerging field. There are many models, which may or may not work, depending on the characteristics of the community and the nature of the issues it faces. A planning board can choose among a broad range of options when deciding on a citizen participation strategy. What is clear, however, is that the older models of the planning process – those that rely almost exclusively on experts – do not work. Success depends on the members of the planning board and other community leaders whose knowledge and political skills are essential. There are certain roles in the planning process that only you can do.

One older model of the planning process is drawn from the design professions. A planning consultant is hired to prepare a plan for the community in the same

way that an architect is hired to design a building. After some preliminary meetings and input from the client, the planner retreats to the office and prepares “the plan.” Then, at a public hearing, it is revealed. After its acceptance, the plan is ultimately forgotten.

The Lesson to Be Learned: *When there are no planning roles for those who must implement the plan, it typically ends up on a shelf, collecting dust.*

With this in mind, the most effective citizen participation strategies involve the public and elected officials at the very beginning of the process. Citizens can be recruited to serve on an ad hoc task force or citizen advisory committee charged with completing a particular section of the master plan. This particular strategy has enjoyed broad support because of its simplicity and ability to deliver quality citizen input.

Another citizen involvement technique is the community survey (for more information, see Chapter 10, “Tools and Techniques”). **Click here for examples.** Depending upon the methodology used, a community survey has the potential of reaching a large number of citizens. This can yield a tremendous amount of input and opinions on a broad range of issues being studied by the planning board.

Still another widely used technique involves the planning board working directly with specialized groups or target audiences, such as farmers, developers, environmentalists, or small-business owners. By grouping persons with like interests, a planning board can capitalize on their accumulated knowledge and perspective. In some cases, this form of citizen participation is essential because of the influential nature of the target audience or special interest group within the community.

Planning boards can also reach out to the public in new, innovative ways. For example, the use of two-way interactive television is gaining popularity. Airtime can often be secured as a public service, at little or no cost to the community. As more people find it difficult to attend meetings, two-way interactive television may well become the preferred medium for citizen involvement in the future.

The charrette, long a mainstay of design professionals as an idea generator, is also gaining acceptance as a citizen participation strategy. Highly interactive and participatory, a charrette can be designed to present citizens with a real world view of planning and the choices their community must make when deciding about future growth and development. The PLAN NH charrette has become a very popular and effective program for communities (see <http://www.plannh.com/>). It brings experienced design professionals to a community at little or no cost, to produce a plan of action that deals with a particular design issue or concern. The community design charrette is typically held over a weekend and begins with a walking tour of the site in question.

At the other end of the spectrum is an inclusive public participatory process, often called community visioning (for more information, see Chapter 5, “Phase II: Community Visioning,” as well as Chapter 10, “Tools and Techniques”). As a prelude to the traditional master planning process, a growing number of communities are engaging their citizens in a structured visioning process. In most cases, the process is designed to provide answers to such key questions as where the community is headed, what values its citizens find most important, and what kind of future they hope to create. As with a charrette, a visioning forum has the potential to produce a tremendous amount of information, as well as civic energy and spirit.

The visioning process also goes to great lengths to achieve consensus and to build public support. A number of good sources are available on this subject, and the American Planning Association has produced a video on community visioning called “Building Vision and Action” (see Chapter 12, Bibliography/Resources). Another good source is the publication called “Swamp Yankee Planning” by Philip Herr, a former M.I.T. planning professor. This twenty-five-page publication is not about swamps or even Yankees, as the title suggests, but about the inherent good sense of community residents and how they need to be involved in the planning process. It is particularly enlightening on the structure and preparatory steps necessary to have a successful participatory process.

Philip Herr and other planners often point out the need to broaden participation beyond the usual city or town hall “regulars.” There are various techniques for doing this, such as citizen surveys by mail or telephone; use of local press and cable television; task forces; visioning sessions; use of facilitators and mediators; focus groups; and a variety of neighborhood, civic, religious, cultural, and fraternal organizations. Even teenagers can participate (see also Chapter 10, “Tools and Techniques”). More extensive participation (beyond that of the usual insiders) is intended to educate the public about local government issues, to generate fresh ideas about old problems, and to improve the political climate by increasing trust. These citizen participation techniques concentrate on finding out what citizens like and dislike. Planning board members listen and attempt to find consensus rather than try to sell a particular proposal.

All citizen participation efforts take time, money, and know-how. They should not be done in a superficial or half-hearted way because they can raise expectations beyond the ability to deliver. That will result in greater cynicism about local government.

Action 6: Develop a Budget and Timeline

As the work plan is prepared, a timeline identifying project milestones and priorities must be developed. Think about this process as budgeting; after you have developed an estimate of the time needed to prepare your plan, triple it. It always takes longer to prepare a master plan than one thinks. An actual budget will also need to be prepared.

Action 7: Set Aside Equal Time at Planning Board Meetings

A planning board can not spend the same amount and kind of time on site plans, subdivisions, and other regulatory matters and get much accomplished on a master plan. There are two principle points to remember about time management. First, a planning board needs to spend equal time on both applications and planning. This can be done, in most cases, without dramatically increasing the number or length of meetings, by establishing time limits within meetings.

Second, greater discipline can be brought to the application process. Planning boards can require that developers provide complete and correct plans. Otherwise their applications can be considered incomplete and returned.

Action 8: Research Basic Background Data about Your Community

In order to plan for the future, a planning board needs to understand the community's past and present. The collection and analysis of background information is an essential early step in the plan development process. Typically, a planning board will conduct studies or gather information about the community's demographics, natural environment, economic base, housing stock, transportation systems, community facilities, and land use. The planning board will then be in a position to analyze trends and draw conclusions about the community.

It is important to note that citizen board members can begin to research some of the basic data needed for the plan. This can be done by assigning each planning board member the task of researching one topic and then presenting her or his findings to the board. If your community has an existing master plan, each planning board member can also be assigned a section or chapter of that plan to review.

The regional planning commission can provide population projections and basic housing studies. The town's annual report may have data on housing construction, or the building inspector can provide this information.

Helpful Hint: *Some, or most, of this basic research can be assigned to a master plan advisory committee (see action step 10). However, the planning board still must have a good understanding of the demographic, housing, and economic conditions, along with other trends, in the community.*

Action 9: Understand the Role of Policies, Goals, Objectives, and Strategies

Whether one is preparing a master plan from

scratch or updating an existing plan, it is important to find, record, and evaluate the community's existing policies, however obscure. Prior and current plans, planning documents, zoning and subdivision ordinances, and site plan regulations are important sources of information. Rarely are the policies summarized all in one place, except perhaps in the master plan. A municipality is likely to have many more policies than is commonly realized.

A policy is generally defined as a statement expressing an adopted position. It sets forth a definite course of action to guide and determine present and future decisions.

Another important consideration in plan development involves the prediction of future conditions in the community. When findings are generated as a result of background studies, the plan will begin to reflect an orientation toward the future. In most cases, this orientation will be represented in the plan's vision and goal statements which, when implemented, will bring the plan to life.

The challenge of articulating a community's future through words should not be trivialized. For example, there might be agreement on the overall goal of "improving our community," but no agreement on how this will be done. Planning board members must ask themselves whether such a goal carries any real meaning with it. In recognition of the critical role words play in planning, it is important that planning board members and other community officials understand the differences between goals, objectives, and strategies.

- A **goal** is a general statement of a future condition considered desirable for the community; it is an end towards which actions are aimed.
- An **objective** is a statement of a measurable activity to be accomplished in pursuit of the goal; it refers to an aspiration that is reasonably attainable.
- A **strategy** is a specific proposal to do something that relates directly to accomplishing the objective; it identifies the how, the where, and the amount to be done.

As past and current policies are researched, it would be equally wise to find and record all of the community's past and current goals, objectives, and strategies and compare them, looking for similarities and differences.

Action 10: Establish a Master Plan Advisory Committee (Optional)

It is critical that the planning board involve a wide cross section of boards, committees, and departments in the master planning process. Planning involves a number of fields and stretches across a variety of local government activities.

The technique most commonly used is to appoint a master plan advisory or steering committee to guide the master planning process. Generally, it should include all or most members of the planning board, representatives of other boards and committees, department heads, and elected officials, as well as members of the public. The size of the committee should be kept in mind, too. The larger the committee, the more work it will take to manage it.

As a rule, the planning board chair will seek nominations and appoint committee members. Ideally, the master plan advisory committee should consist of key representatives from the following boards, commissions, and departments:

- the planning board
- elected officials (board of selectmen, town or city council, the mayor)
- the city manager or town administrator
- department heads (fire and police chiefs, building inspectors, and heads of the departments of public works, parks and recreation, and health)
- the superintendent of schools and school board
- the conservation commission
- the zoning board of adjustment
- the historic commission (if available)
- the economic development council (if available)
- the parks and recreation commission (if available)

- the budget committee
- the regional planning commission*
- local citizens
- town or staff planners (if available)*

**Regional planning commissions, staff, and town planners should be classified as resource personnel and not as voting members of the committee.*

Step C: Ensuring That Your Resources Are in Place

1. Double-check Funding Sources and Staff/Volunteer Commitments

When the work plan has been accepted, the next step is to make sure that resources, funding, staff, volunteers, consultants (if needed), and equipment are in place. This includes working with the town planner and/or finance department or town administrator to verify funding and to make sure that all necessary contracts for professional services have been properly secured. Also verify that volunteers are committed to the process and ready to participate.

The existence of planning staff and equipment will vary from town to town. Some communities employ a professional town planner or planning staff, who may have the time to facilitate and direct the master plan preparation process. However, for the majority of small towns in New Hampshire, a town planner does not exist. Therefore, it becomes the job of the planning board to organize and facilitate the master planning process.

The main equipment needed includes a facility where people can meet, a computer, a telephone, and mapping capabilities. Today, geographic information systems (GIS) provide the bulk of the mapping work required for most master planning efforts. If the community does not have GIS capabilities, often these services can be provided by the regional planning commission or by a consultant for a fee. Knowledgeable volunteers within your community who have GIS experience may be willing to donate their time and expertise as a service to the community.

2. Have the Master Plan Advisory Committee Review the Work Plan (Optional)

Once the work plan has been completed, the master plan advisory committee can review it with volunteers, staff, and/or consultants working with the community. Responsibilities can then be assigned, including organizing the community visioning process and preparing the community assessment, described in the following chapters.



Summary of Action Steps for Developing Your Work Plan

- Action 1: Search out and examine past plans and planning studies prepared for your community, as well as current regional plans, such as the housing needs assessment, the transportation improvement program (TIP), and other regional transportation plans prepared by your regional planning commission that may have a bearing on your community.
- Action 2: Research all applicable state laws and local codes related to the preparation, adoption, and amendment of a master plan.
- Action 3: Gain an understanding of the planning process and the different types of master plans, and select a type of plan to prepare (see the master planning worksheet for guidance).
- Action 4: Begin research to determine the contents of your plan, such as the types and number of chapters needed (see Chapter 3 of the handbook).
- Action 5: Research and educate the planning board about the merits and types of citizen participation. Seek wide public involvement and the involvement of elected officials, staff, and other boards and commissions in the planning process.
- Action 6: Develop a budget and timeline for preparing the plan. Once the timeline has been completed, triple it.
- Action 7: Set aside equal time at planning board meetings to address master planning agenda topics as well as regulatory matters.
- Action 8: Begin to research basic background data about your community (see Chapter 6 of the handbook for guidance).
- Action 9: Understand the role of policies, goals, objectives, and strategies. Search out and examine all of your community's policies and find and compare past and current goals, objectives, and strategies.
- Action 10: Appoint a master plan advisory committee (optional).

Phase II: Community Visioning

Step 1: Community Visioning: Develop Vision Statements, Goals, and Objectives

The purpose of this chapter is to review Phase II, Step 1 of the Master Planning Process – Community Visioning. As stated earlier, community visioning is now a mandatory component for all master plans in New Hampshire. Two of the most frequently asked questions about community visioning are “Why should my community be interested in undertaking a visioning process?” and “What does visioning involve?” People want to know the benefits of visioning and how to conduct the visioning process in their own cities or towns.

Visioning is a process by which a community decides the future it wants and then plans how to achieve it (Ames, 1993). Community visioning projects are now fairly common-place. They can take a variety of forms and are unique to each locality, but most visioning processes generally ask four fundamental questions: (1) Where are we now? (2) Where are we going? (3) Where do we want to be? and (4) How do we get there? (Ames, 1993).

The primary purpose of a visioning process should be to develop a set of vision statements, community goals, and objectives that best articulate the desires of the citizens about the future of the community. These vision statements serve to direct the other sections of the master plan, as required by RSA 674:2 II. They offer the guiding principles and priorities upon which the master plan is based. The decision of how to approach the visioning process should not be taken lightly; a well-planned and organized visioning process will ensure that your master plan is understood and accepted by the community.

Visioning processes engage the public in many ways through a variety of tools, including community surveys/questionnaires, community mapping exercises, focus groups/public forums, study circles, community workshops, blue-ribbon committees, community



*Nothing happens
unless first a dream.*

- Carl Sandburg

tours, newsletters, and special events (see Chapter 10, “Tools and Techniques”). Each technique is designed to gain public input regarding the future of the community. Through public involvement, communities identify their purpose, core values, and vision of the future, all of which is then transformed into manageable and feasible community goals and an action plan.

Visioning is an absolute must for any master planning project. It should be initiated at the very beginning and continued throughout the duration of the planning process. Approaches to visioning should be varied, and they should be tailored to the individual community and its circumstances.

The results of your community's visioning will have a strong presence in the resulting master planning document, both in substance and in style. In some communities, the visioning process may be considered so important that it is given its own event. A community may convene a special meeting, or a series of meetings, to develop a community vision. The primary product of such an event would be a guide for subsequent planning. Usually the vision is followed by the development of specific strategies and an action plan the community wishes to follow. The visioning process may also be "folded," or integrated, into the public participation techniques employed in the master planning process.

The Visioning Process

Creating a common vision requires several actions to complete the process. Here is one example of how it might go over the course of several working sessions.

- Brainstorm ideas and capture them on flip charts or by other means.
- Break into small groups and discuss and record ideas more fully.
- Present small group discussions to the larger group.
- Gather similar ideas together.
- Assign responsibility for gathering additional information needed.
- Determine focus areas to ascertain if environmental, economic, and social attributes are captured.

Once the additional information is collected, bring together stakeholders to

- develop scenarios for alternative futures
- produce a pictorial/graphic representation of those alternative futures
- create the first draft of the vision statement

- circulate the draft vision statement and gather feedback from community members
- revise the vision statement and circulate it again
- create the final vision statement

Please note that creating a vision statement may require time and work to achieve a broad consensus.

Additional outreach to the community via a community survey, newsletters, or newspaper articles may help to facilitate the process. For communities that have held a visioning event, it is recommended that upon completion, community action groups be formed to carry forward the ideas and projects to be implemented. Some useful ideas for additional public review include

- meetings with community organizations
- reviews with planning board, board of select men or city council
- public surveys or questionnaires
- presentations or displays at community events
- articles in local news media and community newsletters

Visioning Models

A number of visioning models have been developed in cities and states across the country that can be considered when preparing the master plan (see also Chapter 10, "Tools and Techniques"). These models tend to vary with regard to how public participation occurs in the visioning process, how and when data is used in the workshops, and the length of time prescribed for conducting the process. Most are geared toward developing a broad community vision and action plan in a relatively short time period of time.

Consultants who specialize in community visioning and the use of visioning processes for master plan development are available for hire throughout New England as well as the rest of the country. The costs of their services vary, depending upon the type of process that is employed, the time involved, the amount of public participation, and the size of the community. Fees can range from as little as \$3,000 to well over \$20,000.

The University of New Hampshire (UNH) Cooperative Extension Office has developed the Community Profile Project, which offers communities an opportunity to undertake a visioning process that can be utilized in the preparation of a master plan (for more information about the Community Profile Project, see Chapter 10, “Tools and Techniques,” or see: <http://ceinfo.unh.edu>). This process enables communities to develop an action plan for the future by considering eleven different issue areas. For small communities with limited resources, as well as larger communities with numerous volunteers, the Community Profile Project is an excellent resource that can directly benefit the com-

munity and the development of a master plan.

If your community desires to undertake a more extensive visioning exercise, the Oregon Model is the most popular and commonly used example. The following article by Steven Ames is included here to provide more information about the Oregon Model. For a more in-depth treatment see *A Guide to Community visioning: Hands-on Information for Local Communities*, a handbook written by Steven Ames and published by the American Planning Association (see also the reference in Chapter 12, “Bibliography/Resources”).

WHAT IS VISIONING?

A Brief Introduction to the "Oregon Model"

By Steven C. Ames

Virtually every step forward in the progress of mankind has begun with a dream. Seeing something in the mind's eye has been the first step to achieving it in reality.

Visioning is a process through which a community envisions the future it wants, and then plans how to achieve it. It brings people together to develop a shared image of “where” they want their community to be in the future. Once a community has envisioned where it wants to be, it can begin consciously to work toward that goal.

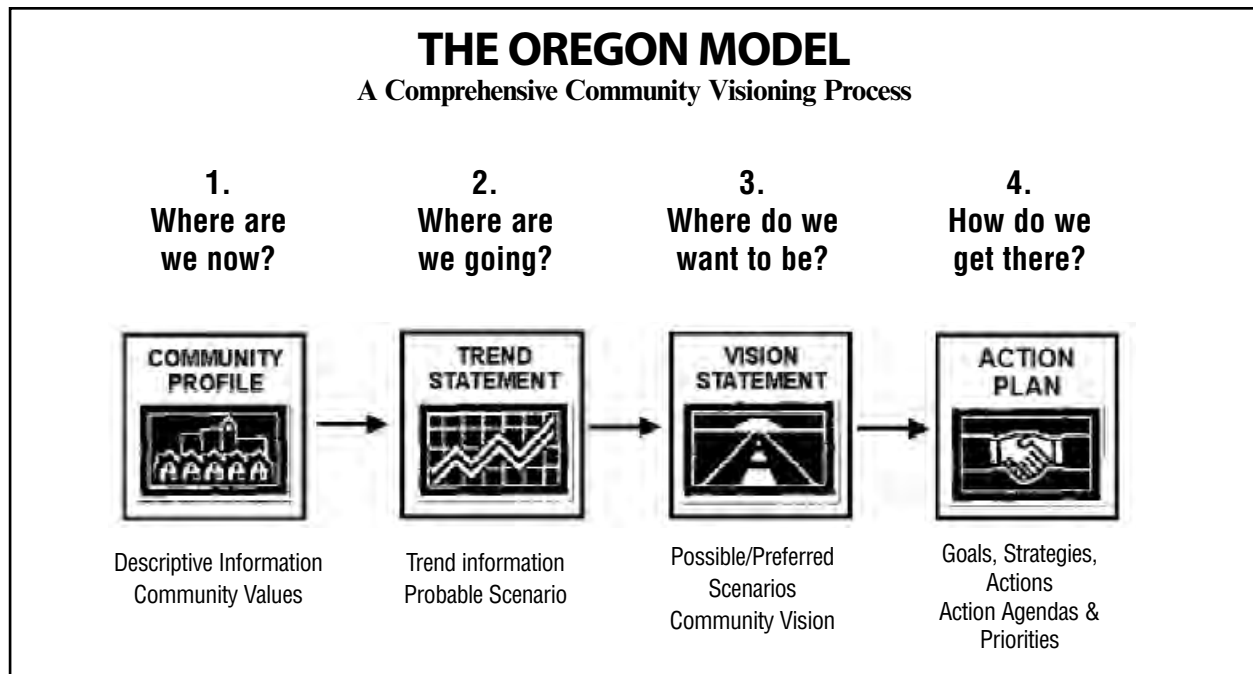
A vision is the guiding image of what a community would like to be, and a vision statement is the formal expression of such a vision. It depicts in words and images what the community seeks to become – how it would look, how it would function, how it might be different or better. A vision statement is also the starting point for the development and implementation of a strategic action plan that can help the community mobilize to achieve its vision over time. In undertaking a visioning process, a community can: better understand local strengths, weaknesses, and core community values; identify outside forces, trends, and issues that are shaping its future; articulate a preferred vision to guide its future directions; and develop the strategic tools to achieve its vision

The Oregon Model: Comprehensive Community visioning

Oregon communities have been at the forefront of the use of visioning as a planning tool. Increasingly, visioning is used by local communities in Oregon to complement their state-mandated land use plans, introduce a broader dimension into local planning, and build greater consensus for preferred future directions. This trend fits well with the state's reputation for being innovative, forward-thinking and values-oriented.

In recent years, communities ranging in size from the largest city in the state (Portland) to some of its smallest (e.g., Yachats, Mosier), have engaged in community visioning projects. Each of their visioning experiences has been unique, providing new insights and lessons for the communities that have followed them.

Based on the work of the Oregon Visions Project, a committee of the Oregon Chapter of the American Planning Association, and the experience of local communities, an overall approach to community visioning has emerged. Because this approach directly reflects the visioning efforts of local communities around the state, we call it the “Oregon Model.”



The Four Steps of the Oregon Model

The Oregon Model for community visioning involves a comprehensive four-step process. Each step focuses on a driving question, involves different activities, and results in specific products. While all four steps are recommended, a community may choose to follow only some of them or to undertake specific activities at different points in the process. The model allows for these kinds of changes and flexibility. The four steps in the Oregon Model are:

Step One: Profiling the Community The first step is to profile the community as it exists in the present. This involves identifying and describing key characteristics of the area, such as geography, natural resources, population, demographics, the local economy and labor force, political and community institutions, housing, transportation, education resources, and cultural and recreational resources. An assessment of community strengths and weaknesses is prepared. This step also typically includes the development of a statement of community values that articulates core beliefs shared by community members.

- **Driving question:** "Where are we now?"
- **Activities:** Research and data collection, compilation and analysis. If a values statement is developed, additional activities such as a community survey, community meetings, etc., may be required.
- **Products:** Community profile, strength and

weaknesses assessment, values statement.

Step Two: Analyzing the Trends The second step is to determine where the community is headed if current trends and activities continue. It involves analyzing research to determine current and projected trends, and their potential impact on the community. A "probable scenario," describing what the community will look like at some point in the future if it stays on its current course, may be developed. (As discussed later, additional "possible scenarios" also may be developed.)

- **Driving question:** "Where are we going?"
- **Activities:** Determination of current and projected trends, assessment of their future impact. Creation of a probable scenario (or alternative possible scenarios) through a taskforce, work groups, community meetings and brainstorming sessions, or other means.
- **Products:** Trend Statement, probable scenario, additional possible scenarios.

Step Three: Creating the Vision The next step involves the actual creation of a vision for the future, describing what the community seeks to become. Based on identified community values, a "preferred scenario" is developed to describe what the community will look like if it responds to emerging trends and issues in a proactive manner. Ultimately, the community's formal vision statement is based on this scenario.

While developing the vision statement involves imagination and creativity, the process is also firmly grounded in reality. By basing the preferred scenario on concrete facts and trends identified through the visioning process, citizens create a vision that is both realistic and achievable.

- **Driving question:** "Where do we want to be?"
- **Activities:** Creation of a preferred scenario and final vision statement through task forces, work groups, community meetings, brainstorming session, or other means.
- **Products:** Preferred scenario, vision statement.

Step Four: Developing an Action Plan Once the vision has been created, a strategic action plan to achieve it can be developed. The action plan should be as specific as possible, including actions to be taken, assignment of responsibilities, timelines, costs, opportunities and constraints, and more.

- **Driving question:** "How do we get there?"
- **Activities:** Identification of goals, strategies, action, implementation agendas and priorities through a task force, work groups, or stakeholder meetings. The action plan may also be linked to the development of a community benchmarking system to measure progress in achieving community goals.
- **Product:** Action plan(s).

© 2001 Steven C. Ames. Excerpted and adapted from "What Is Visioning," A Guide to Community visioning: Hands-On Information for Local Communities, Steven C. Ames, Editor, Oregon Visions Project, Oregon Chapter, American Planning Association. The Oregon Model © 1992, 1995 Steven C. Ames. All rights reserved.

Incorporating Vision Statements, Goals, and Objectives into a Master Plan

It may seem like a straightforward task, but incorporating the vision statements, goals, and objectives developed as a result of a community visioning process into a master plan, may not be as easy as it seems. Vision statements can come in all shapes and sizes. Typically they are expressed as general recommendations, goals, concepts, or ideals. They can also identify likes and dislikes, as well as the pros and cons of specific topics. It is extremely important in the preparation of a master plan that your vision

statements articulate the desires and ideals of your community in a clear and definitive fashion. In other words, the vision statements need to be clearly written so that they can be easily incorporated into the plan.

One way to accomplish this is to translate the vision statements into overall guiding principles. For example, your community might place the protection of its downtown as one of its highest priorities. This theme can be considered a guiding principle throughout the plan, as other associated goals, objectives, and recommendations are considered.

Helpful Hint: Always look for the guiding principle behind each vision statement and then use it in the preparation of the master plan. It is not the quantity of vision statements that counts, but the clarity, the underlying purpose, and how the vision statements can be applied as themes throughout the plan. This will go a long way in making the plan more effective.

When articulating the vision statements in your master plan, it is important to stress the guiding principles first. This can be accomplished in the introduction as well as the executive summary. The balance of the vision statements, goals, and objectives can be summarized in the overall vision or general statement section of the plan. If there is a summary report of the visioning process, this report can be included as an appendix. The vision or general statement section should include, at a minimum, the following elements:

- an introduction
- an overall description of the visioning process
- the questions and topics discussed
- a description of the level and frequency of public participation
- the main vision statements
- a list of goals and objectives

In accordance with RSA 674:2 II., it is important that each section of the master plan be consistent with the other sections of the plan in its implementation of the vision section.

Phase III: Building the Information System

This chapter reviews the basic planning steps in Phase III, Step 2 Data Collection and Inventory - Preparing the Community Assessment and Existing Land Use Map; and Step 3 Data Analysis - Formulating Future Development Scenarios. The aim of this phase of the planning process is to translate the vision statements and growth and development trends of the community into future development scenarios.



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

- Yogi Berra

Step 2: Data Collection and Inventory – Preparing the Community Assessment and Existing Land Use Map

Building an information system for a master plan is like building a three-dimensional model. It should contain sets of data about the past, present, and projected conditions of the community. Maps, charts, graphs, tables, and/or narratives should be used to show what it is like today, and where it appears to be headed in the future. This model will provide a good idea of what the community will look like in ten or twenty years if nothing is done to change current trends. Estimates as to when and where growth will occur and which facilities and services may fall short of demands can be made using this base data.

In the development of an information system, it is important that enough data be collected, but not too much. Data collection can be an overwhelming task. The type, amount, and specificity of the data needed will be driven by the projected contents of the master plan and, to a certain extent, by the topics, issues, and recommendations that are identified in the community visioning phase. In short, you should collect just enough data to describe the community accurately.

As a general practice, contact your regional planning commission for all data and GIS data layers that are available for your community.

To complete the land use section of your master plan, **RSA 674: 2 II. (b)** requires the planning board conduct, at a minimum, the following three studies:

- population
- economic activity
- natural, historical, and cultural resources

Each of the above three studies can be easily accomplished by preparing a community assessment.

What Is a Community Assessment? A community assessment is a report used by the planning board and/or master plan advisory committee to promote discussion about the major trends and issues facing the community now and in the years ahead. As a rule, this assessment is the first step of any planning process. It is a working document in which broad trends, rather than a high level of detail, are presented. It provides a snapshot of the most important aspects of a community's population, housing, economic conditions, and natural, historical, and cultural resources. The assessment also draws numerous comparisons to other cities or towns to create context and an understanding of how the community is doing. The idea behind the community assessment is to identify in a report the most important demographic and socio/economic trends facing the community, as well as the important natural, historical and cultural resources in greatest need of protection. An example of a community assessment or trends report can be found at: <http://www.cityofportsmouth.com>.

Contents of a Community Assessment

Population Data

The collection of population and demographic information is necessary for three basic reasons: (1) to review past trends; (2) to assess current conditions; and (3) to identify future trends. The important factors to determine about population are its absolute increase and rate of growth, its distribution, and its composition and mobility.

The main sources of available population data are from the US Census Bureau, the regional planning commission, and the New Hampshire Office of Energy and Planning. The US Census Bureau conducts a population and housing census every ten years. The most recent is the 2000 Census. The next census will be in 2010. Census data for your community is available on line at <http://www.census.gov>. It is wise to coordinate a master plan project with the release of US Census data. Thus, the ideal time period to prepare or update your master plan would be between the years 2000 and 2005 (after the most

recent census) or between the years 2010 and 2015 (after the next census). Otherwise the planning board will be faced with either having to rely on census data that is 5 to 10 years old or developing its own population estimates, which could be costly.

Presently, the NH OEP prepares annual population estimates for every municipality in the state, based on a methodology referred to as the "dwelling unit method." This method relies on linking population growth to new dwelling units and is an acceptable approach to estimating between-census-year population counts. The dwelling unit method relies on three primary input variables: (1) the number of building permits issued by a city or town since the last census, (2) the vacancy rate, and (3) a figure for the average number of persons per dwelling unit. However, the vacancy rates and average persons per dwelling are based on the last census and are updated with current Census Bureau surveys, which are not as reliable.

The NH OEP also prepares population projections that attempt to estimate population levels at five-year intervals, twenty-five years into the future. These projections rely on an allocation methodology. Population projections are first prepared for the entire state by working with the US Census Bureau, and then the NH OEP allocates a percentage of the statewide growth to the counties, based on each county's historical share of state growth. It is the responsibility of the regional planning commissions (RPC's) to review the NH OEP population estimates before they are released.

Many RPC's also prepare population projections independent of state projections. Some of these estimates are based on survey work that is conducted to update regional transportation planning models. A variety of different methodologies are employed, but the most common is the "cohort survival method." Unlike the NH OEP method, most RPC's utilize a "bottom up" approach, where each community's population is projected individually and then aggregated into a regional total.

Basic population and demographic data can be obtained from Community Profiles, prepared by the New Hampshire Employment Security, Economic,

and Labor Market Information Bureau. These profiles are updated annually. A profile for each community in the state can be found online at <http://www.nhes.state.nh.us/elmi/communpro.htm>.

Funded by the Community Development Finance Authority, Flash Facts are also available for many communities in the state through the New Hampshire Association of Regional Planning Commissions (NHARPC). These fact sheets can be found online at NHARPC's website, <http://www.nharpc.org>. They are prepared and updated annually by the North Country Council and the Southern New Hampshire Planning Commission. Also online at this site are "Info Sheets" for every community in the state. This data includes census population numbers and projections, historical information, land use information, tax rates, poverty rank, employment statistics, and housing and commuting data.

Tables and maps of 2000 Census data for all geographies, to the block level, can be obtained through the American Fact Finder by accessing online the Census 2000 Gateway. State and county data is also available through State and County Quick Facts and Data Highlights. The Census 2000 Gateway can be found online at: <http://www.census.gov/main/www/cen2000.html>.

Population data should be gathered for the community, neighboring towns, and the county or region, including

- total number of persons in the community or region
- total number of females and males
- total number of households
- total number of people living in group quarters or institutions
- total number of married couples/families
- average number of people and average number of families per household
- median age of the population (Note: the median age is not the average age. Half of the population is older and half is younger than the median age.)
- number of persons by sex and age groups
- educational attainment of the population

1) Historical Trends

Population data can be collected and presented in a number of ways. It is common to compare the overall population trends of your community with that of the county, the region, and the state. It can be equally important to compare the population of your community with the populations of neighboring cities and towns, depending upon your community's location relative to other cities and towns, and the migration of people in and out. The key population data needed is as follows:

- Total population for the years 1970, 1980, 1990, and 2000 for your community, the county, the region, surrounding towns, and the state (or the four most recent censuses)
- Population projections at five-year intervals, or twenty-five years out, for 2005, 2010, 2015, 2020 and 2025 (for your community, the county, the region, surrounding towns, and the state. Both the NH OEP and regional planning commissions prepare these projections. However, the projections do not get updated between censuses. So, for example, if your town decides to update its master plan in 2007, your community would need to prepare its own population projections starting from 2007 as opposed to 2005 or 2010).

Once this information has been collected, you can prepare a chart or table comparing historical population trends, percentage changes, and annualized percentage rates of growth for your community and surrounding areas. You should also plot the trend lines, both historical and projected, on a graph. If your community is a resort area, collecting and estimating seasonal population data can be a difficult task. A local survey, in addition to the US Census data, may be needed to make an educated estimate.

2) Population Projections

Population projections should be shown in five-year intervals, projected out 15 to 20 years into the future. The projections obtained from the NH OEP, as well as the regional planning commissions, are likely to be conservative. Therefore, it is best to develop a third set of projections based on the latest building permit data, using the dwelling unit method and the most

recent census data for average household size and average vacancy rate. Plot all three sets of projections on a graph and compare. A local decision can then be made as to which is most reasonable, based on first-hand knowledge of your community's economic and demographic conditions. As part of this exercise, it is useful to identify the peaks and lows in the trends and to compare the annualized rates of growth in each decade.



If your community is relatively small, making an accurate projection of the population trend can be a difficult task. There are a number of methods available, but a simple one is to plot the population trend on graph paper. Make a small table to compare populations over time, and then plot the population with its corresponding year. After the data points have been connected, the population trend should become apparent. You should fit, or draw, a trend line so that it passes equidistant between the data points. The trend line may then be extended outward for several decades to provide an idea of future populations. Do not assume, however, that past or current population trends will continue into the future. If this method is used, it is best to collect at least 5 to 7 decades past population data (i.e. from 1940, 1950, 1960, 1970, 1980, 1990 and 2000).

Many communities can use the simple trend-line method, rather than the cohort-survival approach, to project population. The community should be small (less than 2,500 people), show either slow growth or decline for the past two decades, and be located far from large towns and cities and resort areas. With the trend-line method, it is assumed that future population levels can be predicted from past trends. In other words, if the community has been losing population

since 1980, it is a fairly safe assumption that the population will either stabilize or continue to decline for several more decades.

On the other hand, if the community is growing, it is important to pinpoint in the trend line the causes of the growth. In communities located within the fringe of larger cities, in-migration could be driving the population upward. If the community is located in a fairly isolated or rural setting, it could be assuming a role as a trade center within the region. Understanding geographic, economic, and regional influences is critical when final population projections are prepared. A small town on the outskirts of a large city will likely continue to grow, quite possibly at accelerating rates, well into the future. The isolated rural community will assuredly either lose population or continue to grow at low rates. Many small towns and rural areas maintain a birth-to-death rate and a migration pattern that allows them to remain nearly constant in size.

Daniels, Keller, and Lapping in *The Small Town Planning Handbook* have identified the following reasons for population growth, fluctuations, and decline in rural areas and small towns:

- change in regional economic structure
- loss of natural resource base
- regional population loss
- shift in trade area patterns
- major changes in transportation routes and patterns
- loss of major employer or gradual erosion of small businesses or firms
- seasonal jobs
- loss of community service capacity
- failure of leadership
- new technological shifts
- development of natural resources
- metropolitan population overspill
- tourism
- gambling and gaming
- recreational resources
- environmental resources
- new transportation patterns
- new business patterns
- regional growth and development

It is important to remember that population projections set the stage for the other chapters of the master plan. Information on current and expected future population is extremely important for planning future housing demand, land use patterns, economic development, and community facilities, particularly schools. Population projections should be carefully researched and population goals and objectives realistic.

If a community is growing rapidly, a goal promoting slower population growth will probably not be met. Similarly, if the population is declining, a goal to promote rapid population growth will sound like nothing more than wishful thinking. For communities with populations between 2,500 and 10,000, the cohort-survival method is recommended because of the availability of census data. Communities with less than 2,500 residents may find that a simple population trend-line is sufficient. The biggest problem in accurately estimating future populations is that in- and out-migration are often difficult to predict. This is particularly true in fast-growing communities.

3) Population Composition

There are two fundamental factors to look at with regard to a community's population composition: age and sex. Age is an important factor in determining school-age population, which is found by breaking population census data down to specific cohorts, or age groups. The Census Bureau report entitled Census 2000 Summary File 1 (SF-1) found at: <http://www.census.gov/Press-Release/www/2001/sumfile1.html> contains the number of people by generalized age groups for all counties and communities in the United States and New Hampshire. One need only copy the number of people in each five-year age group from this publication. This report also provides the total population and the total number of males and females in your community. Examples of detailed age cohorts and generalized age groupings are shown as follows:

Detailed Age Cohorts

Under 1 year	35 to 39 years
1 to 2 years	40 to 44 years
3 to 4 years	45 to 49 years
5 to 6 years	50 to 54 years
7 to 9 years	55 to 59 years
10 to 11 years	60 to 64 years
12 to 13 years	65 to 69 years
14 to 15 years	70 to 74 years
16 to 17 years	75 to 79 years
17 to 18 years	80 to 84 years
19 to 20 years	Over 85 years
21 to 24 years	
30 to 34 years	

Generalized Age Cohorts

Under 5 years
5 to 9 years
10 to 14 years
15 to 19 years
20 to 24 years
25 to 34 years
35 to 44 years
35 to 39 years
45 to 54 years
55 to 59 years
50 to 54 years
60 to 64 years
65 to 74 years
75 to 84 years
Over 85 years

For most master plans, the generalized age cohorts as shown above are sufficient. Even fewer cohorts – such as under 1 to 18, 19 to 29, 30 to 39, 40 to 49, 50 to 59, and 60 and older – may suffice. The detailed age cohorts are helpful when projecting future school enrollment. Age data is important (1) to determine which cohort, or population grouping, is the most dominant within the community; and (2) to develop population projections using the cohort survival technique. A younger population imposes different sets of demands upon the types and provision of services needed within a community than an older one does.

Another important data set is the median age. You can evaluate this data to assess how young or old the population is within your community. It is useful to make median-age comparisons by tracking how the median age has changed over time and how it compares with neighboring communities and the county.

The sex of the population is also important to look at, particularly the abundance or lack of females within the baby-rearing age groups. A large number of females may indicate that a community has the potential for increased fertility rates. Lower numbers in that category mean lower fertility rates.

Some master plans include information about the racial composition of the community's population. This information is useful in assessing how a community is changing ethnically.

4) Population Distribution/Density

If your community is concerned about increasing land consumption and decreasing buildable land area, data can be collected on the population density of the community, surrounding cities and towns, county, region, and state. Population density is expressed as persons per square mile and is available from the US Census, regional planning commissions and the New Hampshire Office of Energy and Planning. The NH OEP and US Census have also prepared a ranking of communities in New Hampshire based on population, number of housing units, geographic size, and population and housing unit density per square mile. These reports can provide a perspective that may be useful in the master planning process.

5) Population Mobility

If there is a concern about the out-migration of people who were born within a community, population mobility data can be collected from the US Census. It will provide the percentage of people in the community who occupied the same dwelling unit during the previous census, as well as the percentage of residents who were born in the county or state. By examining these two data sets, the proportion of the population moving in or out of the community, as compared with the county or state, can be identified. This residency data can be obtained from the US Census for the year 1985 from the 1990 Census STF3A file (found at: <http://www.census.gov/main/www/cen2000.html>).

Migration data is also available from the US Census. Migration is commonly defined as “moves that cross jurisdictional boundaries.” In-migration is migration into an area during a given period. Out-migration is migration out of an area during a given period. Net migration is the difference between in-migration and out-migration. A positive net, or net in-migration, indicates that more people moved into the area than moved out during that period. A negative net, or net out-migration, means that more people moved out of the area than moved in. The US Census Bureau only recently (August, 2003) issued migration data for states, regions, counties, and municipalities between the years 1995 and 2000. The NH OEP data center at: <http://nh.gov/oep/programs/DataCenter/index.htm>, has prepared a spreadsheet showing the differences for in-migration for persons aged five years or older.

6) Other Socioeconomic Indicators

Other important demographic information that should be presented in your master plan is the total number of households and families and average household and family size. Per-capita and household income, poverty status, school-age population or school enrollment data, and educational attainment levels can also be included.

Once all of this information has been collected, it should be put into tables, charts, and graphs that depict the growth trends and important socioeco-

nomic indicators of the community. Is your community's population growing or declining? Does your community contain a younger population with more families than neighboring towns? What percentage of the population is over the age of sixty-five? Has the community's school-age population been increasing or decreasing, and what is it expected to do in the future? Is the community's population becoming more ethnically and racially diverse? Has the average household size decreased? What percentage of the population is living above or below the poverty thresholds? How does the community's median per capita income compare with other communities in the county? What percentage of the population has graduated from high school or college? These are the types of questions that should be addressed as part of a population study.

Housing Data

Much of the community's housing data can be obtained from the same sources as noted above, including the US Census, the NH Department of Employment Security's *Community Profiles*, and the New Hampshire Association of Regional Planning Commissions' *Info Sheets*. It is important, however, that housing data for a master plan also be collected from municipal building permit records because housing construction trends tend to mirror population growth rates and changing economic conditions.

The total number of residential building permits by housing type issued each year provides an illustration of housing construction trends within a community, as well as changes in housing mix. If the number of building permits issued over several decades is tracked by a community, the cycles, the highs and lows of housing construction, will become apparent. Generally these cycles closely parallel economic conditions. By carrying this housing trend-line out into the future and combining that projection with an estimated average number of persons per household and an estimated vacancy rate, a reasonable alternative population projection can be derived. National data modeling companies such as Claritas, Inc. can be contacted to obtain estimates of future household size and vacancy rates for your community. As reported by the US Census, the average household size across the country has been declining for the past

several decades. The New Hampshire Housing Finance Authority estimates that the average household size in 2010 will be 98% of the 2000 average.

You can also calculate the average increase in new residential construction over the time period of the building permit data. This average number of new units is useful as you begin to project the future number of new housing units, and as you begin to conduct a build-out analysis of the community (the build-out analysis is discussed in Chapter 10, "Tools and Techniques"). A review of dwelling unit projections is provided in the following sections.

The housing data that should be gathered for your community, neighboring towns, and the county includes

- the total number of housing units
- the total number of housing units by type (single-family, multi-family, manufactured housing)
- the age of housing stock (the year a structure was built)
- the total number of residential building permits issued annually for the past ten years
- the percent of housing that is renter-occupied and the percent owner-occupied
- the median value of all owner-occupied housing units
- the average purchase price of new and existing homes
- the median gross rent for one and two-bedroom apartments
- the fair share formula from regional housing needs assessment

1) Historical Trends – Housing Supply and Mix

Housing data can be collected and evaluated in a number of ways. It is common to compare the overall housing trends of a community with those of the county, the region, and the state. It can be equally important to compare the housing in your community with that of neighboring cities and towns. This decision depends upon the location of your community relative to other cities and towns and the amount of new housing growth in the general area. The key housing data you will need is as follows:

- The total number of housing units (both year-round and seasonal) from the last four decades of the US Census (1970, 1980, 1990, and 2000, at the time of this publication) and the percent change between these years for your community, surrounding towns, county, region, and state.
- The total housing units by type (single-family, multi-family, manufactured housing) for the last two decades of the US Census (1990 and 2000) and the corresponding percentages of the total number of housing units for those years.
- If your community is located in a resort area, the total year-round and seasonal housing units for your community, surrounding towns, the county, the region, and the state for the last two decades of the US Census.
- The total number of residential building permits issued in the past twenty years by housing type and the percent change for each year.
- Additions to the housing supply of your community by housing type, from the date of the last US Census to the present, based on the total number of residential building permits issued by housing type each year for which records exist.

Once you have collected this information, you can prepare a number of charts or tables comparing the community's historical housing trends and percentage changes of housing growth with those of surrounding areas. If your community is a resort area, you can also show the number of year-round and seasonal housing units. All of this information is available from the US Census and the NH OEP, as well as from your municipality's building permit records.

2) Housing Characteristics – Occupancy, Tenure, and Age

The number and types of housing units in your community are as important as the overall characteristics of the housing stock. Three key pieces of data are related to housing characteristics – occupancy status, tenure, and age. Occupancy status is shown as a percentage of total housing units based on the number of owner-occupied and renter-occupied units. You should compare these percentages between 1990 and 2000 to determine if they have increased or

decreased, as this gives you an idea of which type of housing is more popular or locally accepted.

Housing tenure refers to the difference between owner-occupied and rental housing. This is shown as an overall percentage of the total housing stock. Larger cities might have a higher percentage of rental housing, while smaller surrounding towns might have a much higher percentage of owner-occupied housing.

You should also compare the vacancy rates for both owner-occupied and rental housing. A higher vacancy rate for either owner-occupied or rental units might be explained by there being less demand for this type of housing. Conversely, a lower vacancy rate for either rental or owner-occupied units might mean that there is a very tight market and that development pressure for that type of housing remains strong within your community. Ideally, your community planning should work to create a balance between housing supply and demand.

Knowing the age of the community's housing stock is important in properly assessing its health and adequacy. The age of the housing stock in a community is typically shown as a percentage of the year the structure was built. Some communities have many historic homes, while other communities may be comprised mostly of newly constructed homes. Age alone cannot be relied on to indicate the quality of housing stock; however, very often homes built circa 1900 are in much better condition and of higher quality than those of the 1950s through today.

For indicators other than age of the overall condition of the community's housing stock, you can use the information compiled by the municipal property tax assessor/appraiser or conduct a visual housing survey. For most communities, a visual survey would be time-consuming and expensive. Therefore, it is not recommended, unless the planning board wishes to address this issue as part of a more detailed neighborhood plan.

3) Housing Costs and Affordable Housing

You can use the median value of owner-occupied

homes and the median gross rent of rental units to compare the housing costs of your community with surrounding towns, the county, and the state. This data is available from the US Census. For regional sales and rental rates, contact the New Hampshire Housing Finance Authority, which conducts an annual survey of gross rent by county and metropolitan area across the state (**Click here for web site: <http://www.nhhfa.org/>**). You can also contact your regional planning commission or local real estate board to obtain information about the number and average sales price by type of unit for your community and surrounding towns. This information is helpful in showing how your community fares compared with other towns in the regional housing market.

Affordable housing is often defined as housing for individuals or families with low and moderate incomes where the cost does not exceed roughly 30% of their gross income. For planning purposes, it is useful to estimate the total number of affordable housing units needed in your community. In fact, RSA 674:2 III. (a) recommends that a master plan include a housing section that assesses local housing conditions and projects for residents of all ages and income levels in the community and region. This local assessment should be based on the regional housing needs assessment prepared by the regional planning commission pursuant to RSA 36:47, II. You should first obtain, from the US Census, the average of monthly home ownership costs and gross rent as a percentage of household income for your community. You may be surprised to see how high these percentages are. As a general rule, housing costs should not exceed 30% of gross monthly household income. Compare this information with surrounding towns, the county, and the state to see how your community ranks.

Contact your regional planning commission to ascertain your community's fair share of regional low-to-moderate-income housing needs. As previously stated, each planning commission has conducted a fair-share housing needs assessment to determine your community's proportionate share of regional growth and its "fair share" of low- and moderate-income housing, expressed as the total number of low-to-moderate-income housing units that should be provided within your community for

a ten year period. Credits may be granted to adjust the fair-share number downward, as low-to-moderate housing is built in your community. This number is then put into your master plan as your community's fair-share affordable housing goal. While affordable housing does have a significant impact on a community's tax base, each community should demonstrate a willingness to accept its proportionate share of regional growth and its "fair share" of low-to-moderate-income housing, so that no one community is overburdened.

4) Dwelling Unit Projections

Housing projections are important because the total number and types of new units will largely determine how your community will look in the future. In addition, the raw numbers can be used to predict how much land will be needed for future residential development. Your community can then plan accordingly with regard to the location of this new development. Several methods for creating projections can be used.

A simple technique used to project future housing is to divide the projected annual population by the projected average household size for each projection period to determine the number of new households. This calculation should be performed in five-year increments over a 10- to 20-year period. The resulting number of projected new households in each five-year increment will require one additional new dwelling unit to be created. The next step is to determine what percentage of single-family, multi-family, and manufactured home construction will occur in the future, based on your community's past housing construction trends and your knowledge of pending and future projects. The projected number of new households in each five-year increment is then multiplied by the percentage of each housing type. The net increase in each type of housing can then be added to the base year stock.

However, the above method does not take into account vacancy rates, the need for replacement units, or the need to consider other factors that could affect housing construction. To expand upon the above method, you can take a look at your community's housing trends and make several assumptions.

For example, you might assume

1. The New Hampshire Housing Finance Authority's projection that the average house hold size in 2010 will be 98% of 2000 means that the average household size in your community will decline .025 or .03 persons per household for each projection period (i.e. 2005, 2010, 2015, 2020), from 2.53 in 2000 to 2.51 in 2005 and 2.48 in 2010, equaling a 1% decrease every five years.
2. Your community's institutional population (that portion of the population living in dormitories, nursing homes, and other institutional settings) will remain at year 2000 census levels into the future.
3. A 3% vacancy rate will be maintained in the future, to allow for expected movement in and out of your community (the NHHFA defines normal as 1.5% for ownership and 5% for rental).
4. According to the NHHFA, generally 1.7% of the base year stock equates to ten years of replacement units. Thus, 0.17% of housing stock annually will be needed to replace existing housing units that are demolished or destroyed by other causes, such as fire or flooding.
5. No major social, economic, or other unforeseen events will occur that will significantly impact your community's growth and development in the future. If such events occur, adjustments can then be made in accordance with the perceived impact assessed at that time.

Based on the above assumptions, you simply divide the total population projection by the projected average household size for each projection period, multiply the resulting estimated number of housing units by 1.03 to provide an allowance for your vacancy rate, and then multiply by 1.0085 per projection period as replacement housing to derive the total number of projected units. Then subtract from the total projected housing your current housing stock to get the number of additional housing units needed for your community in the future.

If you want to break down the types of housing from the projected totals, you can use the same approach as in the first method and back out these numbers based on the percentages of single-family, multi-family, and manufactured housing that you have estimated for each projection period.

Caution is warranted, however, in evaluating these or any projections. They should be viewed as more of an order-of-magnitude estimate of the size of your community's housing stock in future years, and not an exact number of units to be anticipated.

Economic Data

At a minimum, economic data should

- describe existing economic conditions
- demonstrate the community's ability to support business by identifying its assets and liabilities
- recommend ways to strengthen the economy
- give direction to local officials as to how, what, and where economic activities should take place in your community

Data collection is the first step. Much of the data you will need can be found in the socioeconomic characteristics compiled in the *Census of Population* published by the US Census, as well as in the published reports of the NH Department of Employment Security (NH DES). Additionally, you should check out the NH DES's *Community Profiles*, and NHARPC's *Info Sheets*. Information about your community's tax base and finances can be obtained directly from your city or town government. The key data that should be collected for your community, the county, and the region is as follows:

- Current economic conditions – employment and number of business establishments by each major industry between 1990 and 2000 and to the present. Major industries include: services; transportation, communication, and utilities (TCU); agriculture; retail trade; manufacturing; finance, insurance, and real estate (FIRE); wholesale trade; mining; construction; and government.
- Labor force – unemployment rates from 1990 to present, commuting patterns (travel time to work and place of work), and occupational data.
- Land development patterns – commercial and industrial building square footage; assessed value, both non-residential and residential; and acreage.
- Municipal financial trends – tax rates, expenditures, revenues, and assessed valuations.
- Economic development trends – at-home businesses, technology, special economic areas/assessment districts, and business clusters/parks.

If you are preparing an economic development chapter in your master plan, you should use the above data to address the following topics:

A. Historical Context

1. What natural attributes have contributed to the local economy?
2. What major factors have influenced the local economy?
3. What types of jobs have people held in the past?
4. How was land used in the past?

B. Current Economic Conditions

1. What best describes the overall characteristics of the economy in your community (agricultural, industrial, retail, services, tourism, etc.)?
2. How many and what types of business establishments exist in your town? Which industries are growing and which not growing?
3. Are there particular products made in town? Are there related transportation and/or handling considerations?
4. Where is the greatest number of jobs? Which industry type has the greatest number of employees and which the least?
5. How many home businesses and/or home occupations are there in your community? (You can usually obtain this data from the assessor's records; additionally, a number of private companies maintain a database of telephone listings that could be mapped using geographic information systems, or GIS.)
6. What are the prevailing local economic issues?

C. The Local Labor Force

1. What is characteristic about the local labor force? Distinguish by economic sector, occupation, and the like. What are the average wages earned? What is the median household income and per capita income, and how does this compare with neighboring towns? What percentage of the community's population have incomes that fall below poverty level? Has this improved over time?

2. How many people are employed in your community? What are the employment trends by industry group?
3. How do people travel to work? Where do people live in relation to their work? What are the commuting patterns in your community?
4. What are the unemployment trends?

D. Local Business Support Services

1. Identify the kinds of support services your community can offer to promote business development (e.g. transportation facilities and services, public facilities and utilities, suitable land with good access, land zoned for business, industrial/office parks, and vacant buildings).
2. Identify other service-oriented support services, such as schools, training programs, and banking.

E. The Regional Economy

1. Describe how your community fits in with other communities in the region. Is your town a bedroom community, for example?
2. Identify and describe local assets and liabilities.
3. Describe how your community compares with other communities in the region in terms of number of jobs, types of employment, and available new commercial/industrial building space.
4. Forecast number and types of jobs and compare with neighboring towns, the region, and the state (employment projections can be obtained from the New Hampshire Department of Employment Security and your regional planning commission).

F. Economic Potential

1. Identify land development patterns, including land use controls and zoning.
2. Describe community development, including capital improvements, water and sewer, and transportation.
3. Offer suggestions for creating a better business environment.
4. Provide a summary and recommendations.

G. Municipal Finances

1. Identify and describe current and historic trends in total assessed valuations, both residential and non-residential; tax rates; expenditures; revenues; and what budgetary implications these have for the community.
2. Identify and describe how the community's tax burden is shared by various land uses, such as residential and non-residential, agricultural, and public utilities uses.
3. Compare equalized valuations, per capita income, equalized tax rate, and the state rank of your community with neighboring towns. How does your community's equalized valuation compare to the state as a whole and to neighboring towns on a per capita basis?
4. Identify the impact of exemptions on tax structure. Which exemptions make up the top of the list?
5. Compare general fund budget increases for consistency with community growth rates, development patterns, and real estate values.
6. Identify long-term debt and compare with capital expenditures. Describe capital reserve funds. What percentage of public funds is expended for capital improvement projects? Are expenditures above or below annual operating budgets for purchase, construction, or replacement of physical facilities in the community? Is demand for community facilities growing within the community?

Natural Resources

The collection and presentation of data concerning a community's natural environment is essential to all master plans. The natural resources inventory provides the data upon which most master plans are based (see Natural Resources Inventories, A Guide for New Hampshire Communities and Conservation Groups, Revised and Updated by UNH Cooperative Extension, 2001). Most of the information required for a basic inventory may have already been collected and mapped for your community by your regional planning commission using the data from GRANIT. Some County Soil Survey data may not be available in digital format for use with GIS. For additional information on up-to-date listing of data layers visit GRANIT at <http://www.granit.sr.unh.edu>.

GRANIT is New Hampshire's Statewide Geographic Information System which is maintained by the UNH Complex Systems Research Center.

After you have reviewed the data layers available through GRANIT, you may find that your community does not need to undergo the expense of developing a full-blown natural resources inventory; a basic inventory may be adequate. The key natural resources data that you should collect and present in written, graphic, or map form as part of this inventory includes

- A description of the **topography and geology** of your municipality, noting elevation ranges above sea level; hilly terrain; irregular relief and slope; prominent hills and hillsides; geologic features; bedrock outcrops; and generalized surface deposits. Most of this information can be obtained from the USGS maps prepared for your community (see available USGS resources on-line at: <http://mapping.usgs.gov/partners/viewonline.html>, or contact your regional planning commission).
- A **generalized soils** description and map based on your County Soil Survey, as published by the USDA Natural Resource Conservation Service, formerly known as the US Soil Conservation Service (this information can be found on-line at: <http://www.nh.nrcs.usda.gov/> and also at your local NRCS office).
- A description and map of **prime farmland soils** as identified by the US Natural Resource Conservation Service – prime farmland soils, soils of statewide importance, and soils of local importance (this can be obtained from GRANIT as a data layer).
- A **soil conditions** map, noting soil limitations and development constraints; hydric soils; seasonally wet soils; shallow-to-bedrock soils; sandy-gravelly soils; existing, restored, or abandoned gravel pits; and prime farmland soils based on County Soil Survey descriptions and slope.
- A **slope** map showing slopes less than 5%, 5% to 10%, 10% to 15%, 15% to 20%, 20% to 25%, and over 25%, based on available topography and contour data.
- A description and map showing **water resources**, including watershed boundaries; surface water (lakes, ponds, and major rivers); groundwater; and

wetlands. A statewide inventory of all surface water features is available through GRANIT GIS. You should also include a stratified drift aquifers map, as well as a map of all public lands, which may be included in a groundwater conservation district or a well-head protection area. All stratified drift aquifers in the state have been mapped with accompanying reports and published by the USGS (NH) and the NH DES. Information about and locations of public wells and active drinking water supplies is available from GRANIT GIS.

- A **wetland** description and map. Wetland information varies from agency to agency within New Hampshire and the federal government. For planning purposes, the most widely used soil descriptions employed by the US Natural Resources Conservation Service comprise the hydric soil category, or the poorly and very poorly drained soils, as identified by the county soil survey. Wetlands have also been defined and mapped statewide on the GRANIT system using the criteria of the US Fish and Wildlife Service through the National Wetlands Inventory Program (NWI). The NWI website can be found at: <http://www.nwi.fws.gov/>. In addition, for of managing and permitting activities in wetlands that are of state interest, the NH Wetlands Bureau (website: <http://www.des.state.nh.us/wetlands/>) has adopted the 1987 US Army Corps of Engineers publication, Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1.

- A description and map of all **special flood hazard** areas (100-year floodplain and floodway boundaries and elevations) based on the Flood Insurance Study of your community, which is prepared by the Federal Emergency Management Agency (FEMA). If you include a natural hazards chapter in your master plan, this map should be provided in that chapter, as well as a description of any other natural constraints. Special flood hazard areas can be obtained for many communities from GRANIT. Also see the NH Floodplain Management Program at: <http://www.nhoem.state.nh.us/NFIP/homepage.shtm>.

- A description of all **potential contamination sources** close to water resources. The Hazardous Waste Management Division at NH DES (see: http://www.des.state.nh.us/ORCB/doclist/MTBe_and_other_Contamination_Sites_List.pdf main-

tains a statewide inventory by town of all sites with hazardous wastes that may pose a threat to water resources. This information can be described and mapped. In addition, GIS coverage of all National Pollution Discharge Elimination System (NPDES) Outfalls can be obtained from the NH DES Wastewater Engineering Bureau at: <http://www.des.state.nh.us/wwel/>.

- A description and map of all **special resource areas**, including wildlife, rare species/exemplary natural communities, and riparian buffer zones. The New Hampshire Natural Heritage Bureau (NH NHB), previously known as the Natural Heritage Inventory (NHI), maintains a list of all rare plants and endangered species in the state (See NH NHB at: <http://www.nhdf.org/formgt/nhi-web/>). Upon submittal of a request form, the NH NHB will provide a map illustrating their general locations. GIS coverage is also available by special permission through DRED, Division of Forests and Lands, and GRANIT.

- A description and maps of all **natural/cultural resource protection priorities** (REPP). This information has been collected by your regional planning commission for most of the municipalities in the region. It includes a breakdown of natural/cultural and scenic resources that have been identified by the municipality (primarily your conservation commission) as priorities for protection. This information is important because it enables you to identify easily lands of special importance and unfragmented open space as well as to shape your community's future land use plan. GIS coverage is available from RPC's and NH DES.

- A description and map of **conservation and public lands**. By definition, conservation lands are properties that are primarily undeveloped and protected from future development. Conservation lands are mapped for the entire state by the Society for the Protection of New Hampshire Forests (SPNHF) (see web page at: <http://www.sphhf.org/research/>) in cooperation with the NH OEP and UNH Complex Systems Research Center. If your community has prepared, or is in the process of preparing, an open space plan, you should also include any maps showing unprotected open space and areas proposed for open space protection. GIS coverage is available from GRANIT.

- A description and map of **forest lands**. It may be difficult to find a complete inventory of the forest lands in your community, but you can highlight these areas with the use of aerial photographs showing your community's conservation lands, tree preserves, and town forests. Statewide aerial photographic coverage is also available from flights made at about ten-year intervals, starting in the early 1950s. County Farm Service Agency offices have the most current USDA aerial photographs with coverage for their respective counties at a scale of 1" = 660'. They allow public viewing and provide order forms and purchasing information. Reproductions can be ordered in a number of scales, ranging from 1" = 4,833' to 1" = 200'. Aerial photographs can also be purchased through your county conservation districts. Orthophotoquads are available in black and white or color infrared at the 1:24,000 scale through the USGS at 1-888-ASK-USGS or through the website <http://mapping.usgs.gov/esic>. Orthophotoquads are also available in digital format through GRANIT GIS for certain areas of the state. GRANIT also has GIS coverage of the "land cover assessment 2001."
- A description and map of available **construction materials**. This information should be included in your environmental inventory, but if you plan to include a construction materials chapter in your master plan, it should be addressed separately under that chapter of the plan and include data on road fill, sand and gravel deposits, and topsoil, plus any areas of active, restored, or abandoned sand and gravel pits. This data is available from your County Soil Survey.

well as development constraints, can be identified, evaluated, and mapped. This information is important because it is critical to the shaping of your future land use plan and must precede the next phase of the master planning process, building the plan. The following table is provided to help you with the data requirements for each of the maps recommended herein. In lieu of preparing all of these maps, you may choose to combine them, or to include only the two summary composite maps in your plan.

Once you have collected and mapped the above information, the next step is to prepare two summary composite maps: a map of environmentally sensitive areas and a map of natural and community hazards. These maps serve two purposes: (1) to identify all the areas within your community that are currently protected, or should be protected, from development because of their environmental and natural resource value; and (2) to identify all the natural or disturbed areas within your community that should be avoided due to the hazards or constraints they pose for development. When the two composite maps are combined, development opportunities, as

Natural Resource Inventory

Recommended Maps and Associated Data Requirements

MAP TITLE	DATA REQUIREMENTS
Topographic Map	General contour lines with 20 feet intervals, elevation, and watershed boundaries are available from USGS Quads and GRANIT. This information can be shown on your road base map.
Generalized Soils Map	Based on general soil map units, as shown in your County Soil Survey (typically 8 to 10 units). This information may not be available as a GIS layer from GRANIT.
Prime Farmland Soils Map	Based on soil unit attributes supplied by the NRCS County Soil Survey. May also be supplied by GRANIT.
Soils Conditions Map	General soil map units grouped into four categories: wetland (hydric) soils; seasonally wet soils; shallow-to-bedrock soils; and sandy-gravelly soils. This map can also show prime farmland soils and existing, restored, or abandoned gravel pits. A GIS layer may be available from GRANIT.
Slope Map	Requires contour intervals of at least five feet. Slope percentages maybe either derived from contour data for your municipality or using the soil attribute data available from GRANIT. Use a gradient of colors from light tan (less than 5%) to red (over 25%) to highlight the soil percentages. It is possible to map steep slopes of 15% - 25% and over 25% using this data.
Water Resources Map	Surface waters (lakes, ponds, and major rivers) can be shown on your base map. This information is available as a data layer from GRANIT. Groundwater resources can be shown on a separate map, including well-head protection areas and groundwater conservation districts. Stratified drift aquifer data is available from GRANIT.
Wetlands Composite Map	Both National Wetlands Inventory (NWI) and Hydric Soils (Hydric A and B Soil) data should be available as GIS layers from GRANIT. If not, you may need to conduct a wetlands survey. If your community has designated prime wetlands using the New Hampshire method, these areas should be shown. It is possible to highlight significant wetlands by mapping your community's prime wetlands, wetlands designated as palustrine emergent marsh (PEM) on the NWI maps, wetland complexes made up of a combination of wetland vernal pools and a cluster of small wetlands in one area, and large wetland areas of significant value.
Special Flood Hazard Map	Based on 100-year floodplain and floodway data, as shown on your community's FEMA maps. This should be available as a GIS layer from GRANIT. Flood elevations may be necessary. This data may be combined with your water resources map.

Drinking Water Resources and Potential Contamination Sources	This map can be generated by the NH DES for New and Potential Hampshire towns. The NH DES supplied each town with a copy of this map in 1999. Updated copies may be obtained from NH DES based on watershed or municipal boundaries. This data is available as a GIS layer from GRANIT.
Lands of Special Importance	Prime farmland soils; soils of statewide significance; and rare, threatened, and endangered plant and animal species and plant communities (NHI). Other important natural resource features: scenic areas and designated scenic roads, unique topo-geologic resources, and archaeological and historic sites. Most of this information has been compiled as part of your community's natural resource protection priorities and is available as a GIS data layer from your regional planning commission.
Conservation & Public Lands	Information on publicly-owned (federal, state, and municipal) and privately-owned (fee simple ownership, land trusts, and easements) lands that are protected from development for conservation, forest, or recreational use is available as a GIS layer from GRANIT. Conservation lands are mapped by the SPNHF. This data is dependent upon accurate tax map information. GRANIT is creating a conservation lands registry to help communities regularly add updated information.
Forest Resources	Managed forest lands (tree farms) data is not available from GRANIT, but can be obtained from your local cooperative extension office. Once collected, it must be digitized for use with GIS. Data is available from GRANIT on "unusual forest communities" that have been identified by the NHI. Important Forest Soil Group Maps are available from the Natural Resources Conservation Service. For site-specific and detailed vegetation data, field work may be required.
Construction Materials	Based on soil unit attributes supplied by the NRCS County Soil Survey or GRANIT. Information about existing, restored, and abandoned sand and gravel pits can be obtained from the NH Department of Revenue Administration, which keeps a record of all sand and gravel pits that are exempt and permitted under RSA 155-E. This information is also available from your local tax assessor's records.
Map of Environmentally Sensitive Areas	Composite wetlands; surface waters (lakes, ponds, rivers, and streams); riparian buffer zones; aquifer recharge areas; stratified drift aquifers; well-head protection areas and/or groundwater conservation districts; prime wetlands; prime farmland; publicly owned conservation lands; privately owned protected lands; conservation easements; forest resources; and lands of special importance.
Map of Natural and Community Hazards	Special flood hazard areas; disturbed lands/gravel pits; potential contamination sources; soils with severe development limitations; geologic hazards; steep slopes (>25%); other hazard areas.

Historical and Cultural Resources

Information about the cultural and historical resources of your community is a basic and important element of all master plans. You can contact your local historical society and the State Historic Preservation Office (<http://www.state.nh.us/nhdhr/>) for information about important sites and structures. If your community has already conducted an inventory or survey of historic sites, you can reference and include this information in your master plan. This inventory not only identifies the important historical resources in a community, but often provides the location, date, historic name, and brief description of the resource. Such a survey is often needed to list historic sites, buildings, or districts on the National Register of Historic Places (see <http://www.cr.nps.gov/nr/>), as well as to establish local historic districts.

When possible, historic and cultural sites should be ranked according to their importance and benefit to the community. Critical rankings may indicate that an important historic site is in danger of destruction and/or that it would benefit the community to have it protected immediately. Another area of interest is business district and storefront renovation. The New Hampshire Main Street Program offers communities an opportunity through historic preservation and business retention and development strategies to make their downtowns attractive places to visit, work, and shop (for more information see www.mainst.org). Federal investment tax credits are available for the renovation of commercial buildings that are historically significant or are listed on the National Register of Historic Places.

You should use all of this information to prepare a map of your community's cultural and historical resources, noting which sites are listed on the New Hampshire Register as well as the National Register of Historic Places, and which sites may be eligible for listing or inclusion as historic districts. Much of this information may already be mapped for your community and can be obtained as GIS coverage from your regional planning commission. A GIS layer showing historic and cultural information about your community may also be available through GRANIT.

Along with a map, you should also prepare a written description of your community's current historic preservation efforts, issues, and future needs. This information can be combined with the natural resources chapter, made part of an overall preservation/conservation chapter, or become a separate historical and cultural resources chapter.

Completing Your Community Assessment

Once you have collected and mapped the above information, the next step is to prepare your community assessment report. This report does not have to be comprehensive, but it does need to highlight the major trends within your community and summarize major findings and changes. It should be organized to reflect the chapters that you plan to include in your master plan and the amount of data that will be presented.

Helpful Hint: *Collect only the relevant data that best summarizes and highlights the key points and issues that you need to identify and discuss in your chapters. Once you have completed the community assessment, you should present the report to your master plan advisory committee and the planning board for review and discussion. Compare the results of your community assessment with your vision statements. Look for areas of similarity between the data and the vision statements.*

Land Use

The collection of existing land use data and the preparation of land use maps are essential steps in the master planning process. As noted earlier, the land use chapter forms the backbone of the master plan. This is the section upon which the other sections of the master plan are built and that helps the community decide how and where it should grow and develop in the future.

Your aim in preparing the land use chapter is to present an inventory and map of the existing land use patterns of the community; to describe the land development trends of the community; to set goals and objectives for the types and locations of future development; and to develop a future land use map that depicts the locations of both current land uses and desired future development.

Once you have completed your community assessment, the next step is to evaluate the current land use patterns of your community and identify future growth and development possibilities. These future growth and development scenarios should be shown on draft land use maps. In the process of building a master plan, the scenarios are evaluated and a preferred land development scheme selected. Ideally, this scheme should be compatible with the general character of the community and the community's overall goals and visions. Once it has been selected, the preferred land development scheme essentially becomes the future land use map for your community.

1) Collection of Land Use Data

An existing land use study begins with the identification, location, and mapping of land use in a community. The identification and collection of existing land use data can be accomplished in a number of ways: (1) by conducting a “windshield survey”; (2) by utilizing tax assessor's records and tax maps; (3) by interpreting aerial photography; or (4) through a combination of the other three approaches. A combination of the first three approaches is perhaps the most cost effective and efficient means of collecting land use data, particularly if you have GIS capabilities.

Land use data for your community may be available from your regional planning commission or the New Hampshire Department of Transportation (NH DOT) as part of a regional or statewide transportation planning model. Many of these transportation models are based on land use data that has been collected and coded by traffic analysis zones.

If you need to conduct a field survey to collect new data or to verify existing data, much of the required field work can be accomplished by volunteers. Two-person teams are generally the most effective: one person can drive while the other records information on a work map. This is what's known as a “windshield survey,” and it is often the easiest and quickest method of collecting data.

Preparation is needed before the windshield survey is begun. Travel routes should be plotted; if more than one survey team will be involved, decisions should be made designating the areas to be surveyed by each team. Necessary supplies and materials must be

obtained and arrangements for transportation coordinated. Paper prints of the community's base map, topographic map, or tax maps are normally used in the field. As land uses are identified, they are recorded on a work map in color code, by symbol, or in some other suitable manner. These field notes should then be transferred to a clean map – a second work map – as soon as possible after the survey teams return from the field.

Aerial photographs of the community are also helpful at this point. They can be used to check field work, verify the extent of areas used for specific purposes, and identify uses in areas that are difficult to reach or see from the road. The existing land use map can be prepared in final form after the second work map has been checked for completeness and accuracy.

In conducting your windshield survey, it is not necessary to record individual land uses on a parcel-by-parcel basis. This approach could be time consuming, depending upon the size and number of land parcels in your community. One way to reduce the amount of survey work is to utilize existing tax parcel records. Typically, each parcel record contains a land use code with an associated building value. If a parcel is coded as residential with a building value, it is generally an occupied residential lot. If the lot does not have a building value, then it is most likely vacant. One of the major advantages of using the tax assessor's database is that it can be imported into GIS and land use maps made from this information. The most common GIS formats for mapping this data are Arc Info and Arc View.

Helpful Hint *When you utilize your community's tax assessor's database and tax maps to import data into GIS format, you should first compile a composite tax map of your community. This can be done by combining individual tax map sheets, which involves an editing process called rubber sheeting (overlaying each sheet until they match). Once you have the composite tax map prepared, make any necessary updates and key in the appropriate assessor attribute data for each lot (land use code, zoning, and acreage). You now have a fairly reliable GIS database with which you can generate land use maps, both existing and future. The final step is to verify the data with spot field survey checks. Typically, you will want to verify all the commercial and industrial land parcels to make sure they have been coded properly in the database.*

2) Preparing Your Land Use Maps

There are many different, specific land uses, but it is not necessary for planning purposes to record and map all of them individually. The process should begin with the development of a land use classification system that groups individual uses with similar characteristics into several basic categories. Large communities typically use the Standard Industrial Classification (SIC) Manual to classify land use (for more information, go to <http://www.osha.gov/osh-stats/sicser.html>.) For most small New Hampshire communities, the following land use categories are adequate:

1. Residential
 - Single-family
 - Two-family
 - Multi-family (three or more families)
 - Manufactured homes
2. Commercial
3. Industrial
4. Public/Quasi-public (publicly owned land and buildings, schools, and churches)

5. Institutional (hospitals, clinics, nursing homes, medical offices, and the like)
6. Vacant or open land (undeveloped land, including agricultural land and forests)
7. Mixed use land (such as commercial and residential on the same lot)
8. Surface water

Street right-of-way is generally excluded, but it can be included if the data is available. The above land use classification system can easily be expanded or modified if necessary, depending upon the level of detail you need to describe your community adequately. For example, agricultural lands, woodlands, and forests can be shown as separate categories. Industrial land can be divided into light and heavy industry, warehousing, and wholesaling. It is also helpful to include the notation of special points of interest within your community, such as the town hall, schools, hospitals, scenic areas, and special recreational areas. A number of land use types cause classification problems; here are some examples and solutions.

Use	Suggested Classification
Lumberyard	Commercial
Sawmill	Industrial
Lumberyard/Sawmill	Record dominant use or both uses separately
Sand and gravel mining	Industrial (light or heavy, depending on size of operation)
Shoe manufacturer	Industrial (light)
Granite quarry	Industrial (heavy)
Woolen mill	Industrial (heavy)
Craftsman (at home)	Residential (unless it is a large enterprise – then industrial or commercial)
Business offices	Commercial
Amusement park	Commercial
Greenhouse	Agricultural
Nursery/Florist	Commercial

Once you have developed a classification system, you can use GIS to prepare your existing land use map from the tax assessor's records and your field surveys.

3) How to Prepare an Existing Land Use Map

A hands-on description of how to prepare an existing land use map is provided below.

1. Materials – Obtain paper prints (on heavy paper) of your community's base map, preferably without topography. The base map can be a blue-line or black-line copy, with plenty of extra space for notations. The following information should be shown on this map:

- roads, streets, highways, and railways (with names)
- lakes and major wetlands (with names)
- rivers, streams, and creeks (with names)
- utility rights-of-way (such as power lines)
- names of points of high elevation (such as mountains and hills)
- names of villages, crossroads, and settlements within the community
- name of municipality and a north arrow, scale, and preparation date
- tax parcel and lot information

The base map should be folded carefully, so that portions of the map can be referred to easily, and the exposed portion is of manageable size. A large handheld clipboard makes a convenient writing surface. The individual who is to record information should have pencils, an eraser, an engineer's scale, a list of land use classifications, and a small pencil sharpener (example land use classifications and associated color codes are shown on the following page).

2. Tax Maps – The community's composite tax map, if completed, or a series of individual tax maps, provide valuable information for use in the field survey. The land use survey team may find it easier to use paper prints of tax map sheets as work maps, since property ownership lines often help delineate use areas. (If overlay sheets are developed during preparation of the future land use plan, property ownership can be shown when this information is available).

3. Survey Travel Routes – Those conducting the windshield survey should select their routes carefully to save time and fuel, make sure that all sites are covered, and guarantee that the entire community is surveyed. Organization is particularly important if more than one survey team is involved in collecting land use information. A base map or aerial photographs can be used to help lay out routes.

4. Land Use Classifications – Land use classifications are usually indicated by symbols and/or a color code. A simplified system like the following one should be adequate for most small communities; suggested symbols and colors are shown for the following list of uses. The planning board or master plan advisory committee should decide on the system to be used before starting the survey.

USE GROUP	INCLUDES	ABBREVIATION	COLOR (with RGB values)	
Residential	Low-density, single-family dwellings	R-LD	Yellow (255, 255, 140)	
Residential	Medium-density, two-family dwellings	R-MD	Orange (255, 127, 0)	
Residential (>3 units)	High-density, multi-family dwellings	R-HD	Brown (137, 122, 68)	
Residential	Mobile homes	RM	Tan (168, 112, 0)	
Agricultural	Land in active agricultural use	A	Olive (152, 230, 0)	
Industrial	Manufacturing, both light and heavy	Ind.	Purple (197, 0, 255)	
Commercial	Retail shops, stores, businesses	C	Red (230, 0, 0)	
Public	Town offices, facilities	Pub.	Blue (0, 197, 255)	
Institutional	Schools, hospitals, churches, cemeteries	Inst.	Dark Blue (0, 92, 230)	
Utilities	Water, sewer, electrical substations	Infas.	Gray (130, 130, 130)	
Recreation	Beaches, playing fields, courts, trails, public parks	Rec.	Green (38, 115, 0)	
Forest	Wooded land areas	F	Light Green (56, 168, 0)	
Open land	Inactive land, not forested or developed	O	White (255, 255, 255)	
Surface water	Lakes, ponds, rivers, streams	W	Light Blue (190,232,255)	

5. The Windshield Survey – Information should be recorded on paper work map prints with a soft lead pencil.

a. In recording land uses, lines should be drawn on the map to show the approximate extent of each use. Locate structures as accurately as possible on the work map, and label sites as to their use with a letter code and/or color. Include directly related, surrounding yard/land area in the same use class.

For example, a single family residence in a rural area should be recorded as a residential use of land approximately one acre in size.

b. Accuracy is important, since preparation of the future land use plan may involve proposals to extend existing uses to adjacent land areas.

c. A USGS topographic map can be very helpful in orientation, as can a highway map, which can be obtained from NH DOT.

6. Road Classifications – While conducting the windshield survey, it is wise to note any new roads that may have been constructed and add them to the base map; names should be corrected as necessary.

7. Recording the Data – When the survey team returns to the office, it should transfer the rough information obtained in the field to a clean paper print. This does not result in the final existing land use map, but in a master work map on which all of the information is accurately recorded for review and checking.

8. Aerial Photographs – Compare field data with aerial photographs, if available. This helps confirm the location of uses identified in the field and allows an inspection of back land and inaccessible areas. More exact boundaries of fields and forested lands can be delineated. Examples of uses that can be confirmed in this manner, by someone with out training in photo interpretation, include the location of active agricultural uses, extensive gravel pit operations, and lumbering activities.

9. Review and Consultation – When all of the information recorded on the master work map has been checked, town officials such as the building inspector and road agent should be given an opportunity to confirm its completeness and accuracy based on their knowledge of the community.

10. Final Map Preparation – Transfer the existing land use information from the master work map to a mylar base map. This is usually done in ink on the mylar surface. Symbols or distinctive shading may be used, allowing the mylar original to be reproduced through photographic copying processes. Paper prints or duplicate mylar sheets can be colored, using markers or pencils, to make the existing land use map more readable and easily understandable. If you have GIS capabilities, this map information can be developed on the computer.

11. Keeping the Existing Land Use Map Up-To-Date – The existing land use map can be maintained in up-to-date condition in several ways. If a building permit system exists in the community, all new structures and improvements will be on record in the building inspector's office. This information can easily be transferred to the existing land use work map or a card system for periodic updating of the map. Other commonly used methods involve conducting an annual or biennial windshield survey and updating from new aerial photographs. Regional planning commissions may be able to provide assistance as well.

Land Development Trends

As part of the development of your land use section, it is important to provide a discussion of the land development trends of your community. To accomplish this, you should include a brief historical review of the growth and development of your community, identifying past and current trends. You should also describe the current land use patterns of your community, noting any areas within your community that have experienced strong growth and development pressures. You should also identify any areas of your community that are not growing or are in a state of decline. You should review the building activity of your community, the number and types of building permits that have been issued, and recent subdivision activity. The aim of this review is to take stock of how your community has grown and developed in the past and where your community's growth is occurring today. Some of the information that would be useful includes

- total number of residential building permits issued by type of dwelling (single-family, two-family, multi-family, and manufactured housing) and number of units and acres for the past ten years
- total number of commercial building permits issued and new commercial units and acres or square footage for the past ten years
- historical comparisons between past and current aerial photos that show the amount of developed and undeveloped land within the community

Step 3: Data Analysis: Formulate Future Development Scenarios Based on Vision Statements, Community Assessment, and Land Use Maps

When the existing land use map has been completed, it will reveal graphically the pattern of existing uses within your community. In many New Hampshire communities, the pattern is characterized by a town center surrounded by a sparsely populated rural area. This “village pattern” evolved in an era when most families required land for their subsistence and livelihood. The advent of the automobile and shopping center resulted in departures from the traditional village pattern. New patterns emerged that are characterized as “string” or “strip” development, which occurs in a linear fashion along existing roads; “sprawl,” or random development in outlying areas; and “suburban” development, referring to rings of development around a city or village. An examination of the existing land use map may reveal one or more of these patterns in your community.

An evaluation of existing land use should go beyond an observation of the present pattern to address the question of how future growth can best be accommodated. Some of the most important factors in this analysis are transportation networks, community facilities, utilities, regional growth patterns, and compatibility of land uses.

In many communities, road maintenance expenses are a major budget item; the location of future development can have a significant impact on road construction and maintenance expenses. When development occurs in a sprawl-like pattern, the community is faced with upgrading and maintaining many miles of rural road; but when development is concentrated, these expenses are minimized. It is important, as part of your master plan, to examine and classify your community’s roads according to their present condition and function. The existing road network may suggest that certain areas of the community are preferred for growth because they are already served by a good road. On the other hand, a community can sometimes direct growth into an area by upgrading road access.

Other factors that should be considered are the layout of municipal water and sewer lines, the location of new fire and police stations, and other community facilities. Services can be extended to new development more efficiently and economically if development occurs near existing systems and facilities. The location or extension of public services can be used to reinforce the existing land use pattern or to change the pattern. A common method of encouraging a desired pattern of growth is to allow a greater density of development in areas served by municipal water or sewer. If there are no services at present, or if the existing services are being used at capacity, a community may provide new services in areas where it wants to encourage growth.

As part of your analysis, you should utilize your inventory of publicly owned land. Often a community owns more land than is generally recognized. Identifying public land on a map may stimulate suggestions for new uses. For example, if your community is in need of a new town well, it may discover that it already owns land on top of an aquifer. There may be publicly owned waterfront land that has recreational development potential or state forest land that could be used as a park. If a community finds that it owns land for which it has no immediate or foreseeable use, it might consider selling the land and using the proceeds to acquire a more usable parcel. When examined in the context of existing or future uses, publicly owned land may turn out to be an extremely valuable asset.

Regional land use affects the pattern of community land use; development in town often has a direct effect on neighboring towns. You should be aware of and consider these regional trends in conjunction with the regional planning commission. For example, if growth in a town is moving toward a common boundary, it may encourage growth in the neighboring community as well.

Compatibility of uses is an important factor as you consider the location of future development. While it is generally believed that residential, commercial, and other land uses should be separated into different land areas, it is also recognized that, with proper design, a certain amount of integration of land uses is possible and even desirable. In fact, the current ideal is to promote a careful and thoughtful place-

ment of uses throughout the community, with areas of overlapping uses creating natural transitions. The successful mixing of land uses depends on design and compatibility factors and informed, experienced decision makers. For example, a neighborhood convenience store might fit nicely in a residential neighborhood, whereas a shopping center might best be located in another area (see Chapter 11, “Planning Concepts and Themes,” for more information about mixed use development). The master planning process will help you consider a variety of future development possibilities.

You can also use your community assessment, community visioning statements, and land use maps to observe and evaluate the factors influencing the pattern and mix of land uses within your community and then consider whether it is more desirable to reinforce or to attempt to change current trends. For many traditional towns, low-density residential development scattered throughout the community is a desirable land use pattern. For larger cities, compact, high-density residential areas in walking distance to downtown may be a more desirable alternative.

A good way to assess citizens’ preferences is to use their vision statements as a guide to the type of development pattern most desired by the community. For example, one vision statement might recommend that office and institutional development be used as a transitional land use between residential and more intensive land uses. Another vision statement might encourage your municipality to extend water and sewer service to developments that support a compact urban growth pattern. Similarly, a vision statement may encourage new commercial development to locate within a designated urban growth area boundary (see Chapter 11, “Planning Concepts and Themes,” for more information about compact growth and urban growth area boundaries). Once a preferred land use mix and pattern have been established, the process of delineating areas for growth may be undertaken.

Two useful tools that can help you go about the process of designing future development scenarios for your community are a development constraints map and a development opportunities map. Possible future development scenarios can be formulated for

your community by identifying on your development constraints map all the vacant land areas that are not classified as being either a natural hazard or a special environmental feature. These potential buildable areas can then be shown on your development opportunities map.

The resulting development opportunities map provides a visual statement of the options within your community where growth and development could be encouraged. The development constraints map, on the other hand, provides a framework for the development of an open space system and a definitive picture of those areas that are not suitable for future development. It can also be used as a guide when considering individual development requests.

The process of deciding which areas shown on the development opportunities map are preferred for growth is the essence of the planner’s art. There will probably be several areas that relate closely to existing buildings and roads, and there will probably be several potential growth centers in the rural parts of your community. The master plan advisory committee, planning board, or consultant can compare the advantages and disadvantages of each possible growth area.

During this comparison process, frequent reference should be made to your existing land use map. The evaluation process should also take into account all pertinent factors including topography, soil, slope, water resources, access to the area, existing land uses, special environmental features, community facilities, and utilities. You should also consider the realistic land use needs of your community and your vision statements.

In general, growth is preferred in those developable areas that most logically and conveniently relate to existing developed areas and community facilities and services. If possible, growth should be a direct and compatible extension of existing development. Conversely, growth in inaccessible areas is less desirable unless it can be served independently and economically. Your planning board must develop its own methods of making decisions and struggle with alternatives and conflicting opinions and priorities. The areas eventually designated as preferred for

growth will represent what constitutes a desirable development scheme for the future. The preferred development scheme forms the basis for the future land use map.

Preparing a Development Constraints Map

The preparation of a development constraints map is quite simple. If you have already prepared a map of environmentally sensitive areas and a map of natural and community hazards, then all you have to do is combine this information on one map and set up a color-code system for each data source. If you have not prepared one or both of those maps, you should refer to the data and map requirements as described in the basic natural resource inventory of this handbook (pages 56 to 57).

Preparing a Development Opportunities Map

The preparation of a development opportunities map should be a fairly straight-forward exercise. All you need to do is transfer the vacant developable land areas from your development constraints map onto your development opportunities map and identify them as such. The vacant developable land areas are shown on your development constraints map as all the non-color-coded areas.

Phase IV: Building the Plan

The purpose of this chapter is to review and describe Phase IV of the master planning process – building the plan. This includes steps 4 and 5 of the master planning process. The aim of this phase of the planning process is: (1) to evaluate the future development scenarios formulated in Phase III; (2) to select a preferred future development scheme (which becomes the future land use map); and (3) to prepare and adopt the plan.

Step 4: Evaluating Future Development Scenarios

Leading up to this point, you have successfully prepared (1) a set of vision statements, goals, and objectives, which set forth the central themes and guiding principles of your plan; (2) a community assessment of the past, current, and future characteristics of your community, specifying how and why your community is anticipated to grow in the future; and (3) a number of possible development scenarios, suggesting how and where your community may grow in the future.



*Give a man a fish and he will eat for a day.
Teach a man to fish and he will eat for the rest
of his life.*

- Chinese proverb

The next step in the planning process is to evaluate those scenarios – to examine your community's framework of open space, the pattern of existing land uses, the location of community facilities and services, and the amount and type of growth anticipated or desired. Within the opportunities and limitations, alternative patterns and policies for future growth can be considered.

One way to successfully evaluate such patterns is to compare the advantages and disadvantages of each

scenario. During this process, frequent reference should be made to your community's vision statements and to the development and opportunities map prepared under Phase III of the planning process. The evaluation process should take into account all relevant factors including topography, soil, slope, water resources, the availability of services, existing land uses, and other special features. The realistic land use needs of your community and citizen preferences should also be considered.

The aim of each development scenario is to identify potential growth areas. These areas may be centered around villages in the rural parts of the community or provide for the expansion of existing developed areas. Remember: growth is preferable in those locations where community facilities and services presently exist or where such services can be readily provided; and, conversely, growth is less desirable if the facilities and services necessary to sustain it are not available or cannot be readily provided. Your planning board should be prepared to evaluate various locations within the community for potential growth and then address conflicting opinions and priorities about those areas.

The areas designated as preferred for growth will likely represent a desired development pattern for your community. This pattern forms the basis of your future land use map. The future land use map can also be filled in by identifying future residential, commercial, and industrial areas. The identification of areas for particular future uses should take into account compatibility with existing land uses.

When your board has selected future growth areas and land uses, it has completed the mapping phase of the master plan. The board should then begin to develop the policies and criteria needed to govern the use of the areas designated as “preferred for open space” and “preferred for growth.” The map and accompanying policies or guidelines together constitute the land use plan. As your community begins to discuss and evaluate future development scenarios, it should consider holding at least one public informational meeting, or a series of them, to display and present the preferred growth areas and policies.

Another helpful tool, which can be used to evaluate future development scenarios, is a build-out analysis. This analysis can be used to project what your community will be like 10 to 20 years from now, if present trends are allowed to continue. It can be used to identify all the vacant buildable land in your community if present rates of development continue and present lot size requirements remain in effect. It can also be used to determine how many more housing units could be built and what your community’s future population might be at full build-out.

A build-out analysis is an important and useful tool for medium-sized communities that have been growing rapidly, where the amount of available buildable land has been diminishing, and where there is concern that changes are needed in local land use regulations. On the other hand, if your community has remained relatively stable or has experienced slow growth, if there are large amounts of vacant buildable land still available and the planning board feels confident that additional growth can be adequately accommodated, it may not be necessary to conduct a build-out analysis. The only advantage of conducting a build-out analysis under such conditions is that it presents the community with a “worst-case” development scenario. It paints a picture of what could happen if no action is taken and no changes are made in local land use regulations. In that sense, it could serve as a wake-up call for citizens and community leaders to understand the need for planning as a means to shape future growth and development. The worst-case scenario serves as the ultimate reference point against which all other development scenarios can be compared.

Information about how to conduct a build-out analysis is presented in Chapter 10, “Tools and Techniques.”

Step 5: Selecting the Preferred Development Scheme (Future Land Use Map)/Preparing and Adopting the Plan

Preparing the Future Land Use Map

Ideally you should prepare all the major sections of your plan before you begin the process of developing your future land use map. The future land use map represents a blueprint for future growth, and reflects both existing patterns of land use and the desired use of land. It also predicts the future demand for land, based on past trends and future projections. In short, it is a prescription for planned growth, as well as a land use guide.

1. Consistency

In order for your master plan to be effective, the official zoning map and land use regulations of your community must be consistent with the future land use map, as well as the land use visions and goals of your master plan. In addition, the different zones shown on your zoning map should be consistent with the land use categories shown on the future land use map.

2. Change

The future land use map should also give direction to the planning board in its review of development proposals. The land use chapter should include recommendations for amendments or changes to your community's zoning ordinance and zoning map, as necessary, to ensure consistency with the master plan. Again, future changes in zoning or subdivision policies should be based on the land use categories shown on the future land use map.

3. Land Use Categories

Generally land use categories will be broader and less defined for large communities. The function of this is primarily to avoid designating specific parcels of land for specific uses. However, more specific land use categories are needed for small communities. In small communities, the land areas desired for future residential use include both land use and density. As a result, the future land use map should differentiate between traditional single-family, multi-family, and, perhaps, manufactured homes. The map should also indicate the difference between light or moderate industry. Commercial activities also have a wide range of use intensities. There is a big difference between a neighborhood retail area and a shopping center.

Regional land use maps tend to show large, generalized areas where residential, commercial, and industrial uses may be acceptable. These maps commonly include a good deal of resource data (floodplains, prime farmlands, sensitive environmental areas) that show where development should generally be avoid-

ed. The following land use categories can be used as examples to complete your future land use map. It is important to point out that the categories you use should agree with your community's preferred development scheme and with the vision statements and land use principles of your master plan.

4. Land Use Categories for Large Cities and Towns

If your master plan utilizes an urban growth area boundary concept to promote cost efficiencies in the provision of urban services such as water and sewer, you can delineate an urban growth area (divided into a primary growth area and a secondary growth area) and a rural area (for more information about this concept, see Chapter 11, "Planning Concepts and Themes"). These broad categories would allow your community to guide growth and development first to those areas where existing services are available, and then to those areas where the expansion of those services would be the most cost-effective for the community.

Urban Growth Area – that portion of your town or city that can be expected to develop at an urban level of density over a specified number of years. The urban growth area would include both primary and secondary growth areas.

Primary Growth Area – that portion of the urban growth area where urban-level services and facilities are already in place or can be provided at the least cost. This is the area where near-term growth and development is to be especially encouraged.

Secondary Growth Area – that portion of the urban growth area where urban-level services can be provided, but on a lower priority basis than in the primary growth area. In other words, costs for the provision of services would be more expensive than in the primary growth area.

Rural Area – that portion of the municipality that is influenced by urban growth forces, but within which urban-level development should be discouraged for a specified time period, due to the lack of, or prohibitive cost to provide, urban-level services.

This framework offers a large town or city a generalized strategic growth plan to guide future development; to apply it, it is first necessary to define what constitutes urban-level services and urban-level development within your community.

Another generalized approach is to identify broad areas as preferred residential, non-residential, and conservation.

Preferred Residential – consists of areas in which both single-family and multi-family housing are recommended. There is no concern about density or mixing residential land uses under this approach.

Non-Residential – consists of areas where residential development is not desired except for some infill development of existing lots. This category includes all commercial, industrial, and other non-residential uses. Again, there would be no concern about mixing these uses.

Conservation – includes areas where constraints such as steep slopes and wetlands exist. This category is designed to promote the protection of natural resources and guide development away from natural hazards. It could also be used to protect uses found in your community's rural zoning districts, to prevent, for example, putting a chemical plant next to a private school.

A similar approach is simply to designate areas of **existing development**, including residential, commercial, and industrial – and then designate areas of **future development**. This is a common approach if your community is hesitant to designate specific land use categories on your future land use map.

5. Land Use Categories for Small Cities and Towns

For many small towns and cities, it might be more effective to utilize traditional categories such as the following:

Resource Protection or Conservation – includes those lands used for forestry, mineral extraction, or agriculture, requiring special conservation measures. This category should also include those land areas identified on

your map of environmentally sensitive areas.

Open Space/Recreation – includes land areas already identified as public or municipally-owned lands, town forests, privately owned conservation easements, and public recreational areas and facilities. Most of these areas have already been mapped as part of your basic natural resource inventory.

Rural Residential – consists of existing and proposed single-family residential uses on two or more acres of land. You should be able to cross-reference this category with your zoning districts.

Low-Density Residential – includes all existing and proposed single-family housing, generally on lots of 1 to 2 acres in size. This category should be reflected in your existing zoning districts.

Medium-Density Residential – generally includes all existing and proposed housing lots of 1/2 to 1 acre in size. You should be able to cross-reference this category with your existing zoning districts and include a maximum density.

High-Density Residential – consists of all existing and proposed multi-family developments greater than three units per dwelling. This category should be reflected in your existing zoning districts and include a maximum density.

Manufactured Housing – consists of all existing and proposed mobile home parks and manufactured housing lots.

General Office/Commercial – includes all existing and desired commercial areas generally located downtown or around the immediate downtown area.

Highway Commercial – includes all existing and desired commercial areas located immediately adjacent to existing streets and highways. These areas can also occur as nodes around existing and proposed new intersections.

Downtown or Village/Mixed Use – generally incorporates much of the current town center and areas proposed for expansion.

Industrial – includes all existing industrial areas, industrial parks, and desired future industrial areas.

Community Facilities – includes all existing facilities such as town-owned buildings, schools, and proposed new facilities.

As with most land use classifications, the range of uses can be quite variable. The categories used for the master plan should be designed to reflect your community's local characteristics. In addition, they should tie together all of the chapters and land use principles of your master plan to give an overall picture of your community now and in the future. The creation of the future land use map should be one of the last tasks completed in the development of your master plan.

Future Demand for Land

There is another important aspect to preparing your future land use map. The data and projections prepared as part of your community assessment and studies of population, economic activity, and housing should be closely examined to estimate the future need for land over the planning horizon of your master plan. This is a difficult task even for professional planners. For most master plans, the future demand for housing and public facilities is usually based on past trends and population projections. If you have prepared population and dwelling-units projections, as recommended for the community assessment, the next step is to translate those estimates into land requirements for future building purposes.

A simple approach is to assume that a house, along with the necessary easements and rights-of-way, will require approximately one-half an acre. Be aware that the average amount of land required for one new dwelling unit can vary tremendously. The national trend is toward smaller lots, fewer easements, and narrower streets, although this trend has not significantly affected most rural areas. Lot prices and land preparation costs are considerably lower in rural areas than in urban areas. Lack of public water and sewer, and even the perceived need for more space, means that rural housing lots frequently begin at two units per acre and range to upwards of four or five acres per unit.

Even rapidly growing suburban communities that were once small towns allow some subdivisions to develop without public sewers. A reasonable assumption for the minimum space required to treat sewage on an individual lot is one acre per house. It is important, however, that you check with local and state officials regarding the minimum lot sizes required for on-site sewage treatment. A minimum of two acres is even better, given the likelihood of having to move a leach field sometime during the life of the septic system. Also, if an on-site well is used to provide water, the greater the distance between the well and the septic tank system, the better.

Land required for public spaces such as parks and recreation, governmental institutions, schools, or the expansion of public facilities (including solid waste facilities and transfer stations) should be added to the total demand for land. The best sources for most of this information are your local public officials and the local engineers or consulting engineers who design and plan public facilities. School district officials, using national and state standards, will be able to supply estimates of the total land needed for future school additions and improvements. Statewide standards can also be obtained from the 2003 SCORP and 1995 Guide to Municipal Recreation from NH OEP, which are available online at <http://nh.gov/oep/resources.htm>. National recreation standards are available from the National Recreation and Park Association (NRPA) at <http://nrpa.org/store/>.

Estimating the future demand for commercial and industrial land is somewhat more difficult. Towns located near large cities have a definite advantage in this regard; employment forecasts and market expansion estimates are commonly available and are reasonable indicators of future land requirements. Most small communities and rural areas exhibit a rather slow change and low demand for new commercial space. Towns with moderate growth rates (2% to 3% average annualized rates of growth) can sometimes estimate future demand for commercial space by finding the ratio between total population change and new commercial square footage over the past 5 to 10 years.

Ultimately, it will be necessary to use a common-sense approach when making such estimates. Some common-sense methods for estimating future commercial and office space are provided below. It is important to remember that estimates must include total space, not just the building area; they must factor in, for example, parking space and remaining open space within individual lots.

Example 1: Estimate in square feet the current amount of space used by commercial businesses and offices within your community. Find the ratio of the current population to the current square footage – in other words, the square footage per person. Assume that the need for new space per person will increase at the same rate throughout your planning time period. If the current ratio is, for example, 480 square feet per person, and the total expected number of additional people by the year 2020 is 840, then the need for new commercial space is estimated to be 840×480 , or approximately 403,200 square feet.

Example 2: Estimate the amount of new commercial space built or converted outside the central business district of your community during the past twenty years. Assume that approximately half the same amount of space must be made available over the next ten years.

Example 3: Ask the experts, the people who operate the businesses within your community. Use your local chamber of commerce or similar organizations, or survey all the businesses in your community about plans for expansion within the next 5 to 10 years.

Example 4: If your community has accurate building permit records, you can construct a trend line or a bar chart showing the amount of new commercial space added over the past two decades.

In a typical small town, between 15 to 18 percent of all the land (including the structures and the lots) is used for commercial purposes. This formula may serve as a benchmark for the unexceptional, isolated, stable small town with a population base of approximately 2,500 persons. The problem is that small towns exhibit wide variations in their actual uses of commercial space. Many small communities serve as trade areas for large regional markets and need large

amounts of commercial and professional space. On the other hand, many other small rural communities have low-density housing patterns and traditional village design, with a small ratio of commercial use to total town area. This is especially true if the community is not located on a major highway.

You can also estimate the demand for industrial land, using the current ratio of population to industrial acreage, to project future needs as the population increases. If your community does not have an area or industrial park set aside to both attract and provide for industrial relocation and expansion of industrial operations, it will be difficult to encourage this type of development. Industrial firms are not willing to relocate or expand unless a community can provide accessible, reasonably-priced land with public water and sewer. Planning for industrial development requires a long-range vision. Once investments are made and land is assembled, there is very little opportunity for change. In most master plans, a minimum of forty contiguous acres should be designated for industrial expansion. Keep in mind

- Ease of access is crucial; lack of accessibility is fatal.
- Infrastructure (roads, sewer, and water) and public services are vital to the long-term success of an industrial area.
- New firms in small communities thrive on low-cost buildings and cheap preparation; a site that requires even a moderate amount of preparation may pose an obstacle.
- You can seek help at the regional and state levels; it is also helpful to visit other communities that have industrial parks.

There is no one best way to estimate the demand for future industrial lands. Again, ask the experts. A good master plan lets investors know where development is desired within the community.

Preparing the Plan

At this point in the process, the preparation of your master plan should be straight-forward. You have already completed the community assessment and collected the data and information to be included in the plan. Vision statements have been developed. A

Master Plan Elements	Year						Year					
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Community survey												
Community visioning												
Community goals												
GIS mapping												
Demographic trends												
Existing land use												
Introduction												
Regional concerns												
Community facilities												
Transportation												
Housing												
Economic development												
Historical and cultural resources												
Future land use												
DRAFT PLAN												
Public hearing(s)												
Adoption												
Publishing/Printing												

number of future growth scenarios and a preferred development scheme have been selected. The existing and future land use maps have been prepared, and, most importantly, the chapters of your plan have been selected as provided by RSA 674:2 (see Chapter 3, “What Should Be Included in Your Master Plan”). In addition, you have selected an approach and the type of master plan to prepare for the community (see Chapter 9, “Basics of Planning Theory”). You should now be ready to complete your sections and finalize your plan.

If time is an issue, you may need to streamline your approach and focus your energy on the most important aspects of your plan. If you are planning to complete your master plan within a one-year time-frame, which is generally recommended, it would be wise to complete one section or chapter of your master plan every month until your entire plan is com-

pleted. A sample master plan project timeline is provided above. For most municipalities, the timeline begins with the start of a new fiscal year.

Getting the Plan Adopted

This is a critical moment in any master planning process. At this point in the process, thousands of dollars have been spent. Many volunteers, board members, the public, staff, and elected officials have dedicated a significant amount of time and energy to a project that is now almost complete. All of this hard work could go for naught if either the planning board or the governing body of your community fails to adopt the plan. How do you go about minimizing that possibility? What procedures can you follow to get your plan adopted?

The Planning Board

A master plan may be adopted by the planning board in accordance with RSA 674:4, as stated below:

RSA 674:4 Master Plan Adoption and Amendment.

The Planning Board may, according to the procedures required under RSA 675:6, adopt the master plan as a whole, or may adopt successive sections or parts of the plan. Sections or parts of the plan shall correspond with major geographical sections or divisions of the municipality, or with the functional elements of the plan, and may incorporate any amendment, extension, or addition to the plan.

A planning board may adopt a master plan as a whole document at one time, or it may adopt separate but successive parts of the plan (such as the vision and the land use sections). While it is not mandatory that a master plan be adopted by the planning board once it is completed, it is fair to say that no planning board wants to see a master plan come before it that it cannot adopt. At this point in the process, too many people, including the board, have a stake in the success of the plan.

The Governing Body

There is currently no state requirement that a master plan be considered for adoption or adopted by the local governing body. However, for your plan to be successful, it may be helpful if the governing body adopts it. If adoption is not possible, their approval or acceptance of the plan, at least, can be sought.

There are key differences between the words “adoption,” “approval,” and “acceptance.” These differences should be kept in mind when the plan is presented to your governing body for their review. The words “adoption” and “approval” are very similar. Both imply a formal means of acceptance. However, the word “adoption” carries with it a more official conviction toward action. “Acceptance,” on the other hand, does not carry as strong a message. It signifies mere acknowledgement, rather than wholehearted support.

To obtain the governing body’s support of the master plan, it is recommended that the planning board consider the following strategies.

1. Maintain Open Lines of Communication

Master plans can be rejected by governing bodies for many reasons. Unfortunately, lack of communication between the planning board and the governing body, especially when the plan is being prepared, is a primary reason plans are ignored or set aside. The planning board can avoid this by opening up lines of communication with the board of selectmen or city council. A selectman or city councilor serving as a voting member of the planning board should be able to fill this role.

It would be wise to invite members of the governing body to share their perspectives and visions early in the development of the master plan. Likewise, the planning board should share with the governing body how the plan will be developed, what its contents will include, and why it will be of value to the community. Time spent educating the governing body about the planning process will yield dividends during plan adoption.

2. Share Your Work Plan

The planning board should share its work plan and timeline with the governing body before proceeding to begin work on the master plan. This information will help provide elected officials with a clear picture of how the master plan will be assembled and by what time different parts of the plan will be completed. Everyone on the governing body should be made aware of the master plan as early on in the process as possible.

3. Involve and Inform the Governing Body

The planning board should involve the governing body at all stages of the plan development process. For example, the governing body should be invited to serve on a master plan advisory committee or participate in the community visioning process. They should also be invited to attend all community meetings and public forums held during the planning process. As milestones are reached, written and oral status reports should be given to the governing body. These efforts will help to build and maintain lines of communication between the governing body and the planning board.

4. Schedule Joint Work Sessions

During the development of the master plan, the planning board and the governing body should consider meeting in formal work sessions to discuss various elements and phases of the plan.

5. Hold Joint Public Hearings

It may be useful to hold joint public hearings on the draft plan before the planning board takes formal action. This is a common procedure when an applicant seeks a local permit and petitions two or more land use boards to hold a joint public hearing, the matter of the requested permit falling within the responsibilities of both boards (see RSA 676:2). There is nothing in the state statutes that prevents a joint public hearing of the planning board and the governing body. In fact, holding joint public hearings may help to reduce the number of separate public hearings held by both boards. The premise behind this strategy is that support for the plan may be easier to secure if both bodies are willing to interact with the public together.

6. Schedule Separate Hearings

If joint public hearings are not possible, it may be helpful to schedule a public hearing before the governing body on the final draft plan before the planning board takes formal action. With this approach, the planning board holds its public hearing(s) on the draft plan, and then votes to forward the final draft plan to the governing body for a final public hearing. The governing body holds the final public hearing, votes to adopt or accept the plan, and forwards it back to the planning board for adoption.

In short, no matter which approach is followed, the key word when considering any plan adoption strategy is communication. Designing a strategy that places a premium on communicating with the governing body will substantially enhance the likelihood that your master plan will be successfully adopted and implemented.

Procedural Requirements

The minimum procedural requirements for adoption of a master plan are provided in RSA 675:6, as described below:

RSA 675:6 Method of Adoption. Every local master plan, subdivision regulation, site plan review regulation, and historic district regulation referred to in this title shall be adopted or amended by the planning board or historic district commission, as appropriate, in the following manner:

- I. The board or commission, as appropriate, shall hold a public hearing prior to adoption or amendment. Notice for the time and place of the hearing shall be as provided in RSA 675:7.
- II. The board or commission, as appropriate, may adopt or amend the master plan or regulation upon completion of the public hearing by an affirmative vote of a majority of its members.
- III. No master plan, regulation, amendment, or exception adopted under this section shall be legal or have any force and effect until copies of it are certified by a majority of the board or commission and filed with the city clerk, town clerk, or clerk for the county commissioners.

It often takes several public hearings before the planning board can adopt a master plan. Revisions to the draft plan are typically made after the required public hearing(s). When the draft plan is accepted by the board, it is presented to the governing body for adoption. Often the vote to adopt occurs at a separate meeting following the public hearing. However, this vote can occur immediately upon completion of a public hearing if everything goes smoothly and there is strong support for the plan. Adoption of the master plan, as mandated by state law, requires an affirmative vote of a majority of the planning board.

Public Hearing Notice Requirements

The notice requirements for advertising public hearings on your master plan are provided in RSA 675:7:

RSA 675:7 Notice Requirements for Public Hearing.

I. Notice shall be given for the time and place of each public hearing held under RSA 675:2-4 and RSA 675:6 at least 10 days before the hearing. The notice required under this section shall not include the day notice is posted or the day of the public hearing. Notice of each public hearing shall be published in a paper of general circulation in the municipality and shall be posted in at least 2 public places.

II. The full text of the proposed master plan, zoning ordinance, building code, subdivision regulation, site plan review regulation and historic district regulation, ordinance, or amendment need not be included in the notice if an adequate statement describing the proposal and designating the place where the proposal is on file for public inspection is stated in the notice.

Publishing an advertisement in your local newspaper and posting it in at least two public places are only

the minimum requirements. You can also utilize your local cable access channel and your community's web page and place posters in heavily traveled locations such as the library, city or town hall, recreational centers, and local stores and businesses. Some communities mail out notices and special invitations to all local households and businesses. If your community only has a few thousand residents, it is not too expensive to print and mail post cards or letter-size notices at bulk mail rates. Your town should be able to print mailing labels for all the property owners in your community, based on the town's tax assessing records.

Official Resolution

A master plan cannot be adopted as an ordinance of law because it is not a regulation. However, it is standard practice that master plans be adopted by means of an official resolution of the municipality. Once the resolution has been signed and dated, it is included in the final publication of the master plan so that it is clear the plan has been approved. An example resolution may look something like this:

ADOPTION OF THE TOWN OF _____, NEW HAMPSHIRE MASTER PLAN

In accordance with New Hampshire RSA 674:4, Master Plan Adoption and Amendment, and New Hampshire RSA 675:6, Method and Adoption, the _____ Planning Board, having held duly authorized public hearings on the _____ Master Plan on _____, 2004 and _____, 2004, hereby adopts and certifies the Master Plan dated _____, 2004.

Chair, Planning Board

Vice Chair, Planning Board

Signature of Board Member

Signature of Board Member

Signature of Board Member

Signature of Board Member

NOTE: The document with original signatures is on file with the Town Clerk in accordance with RSA 675:8.

Filing with the Town Clerk and the NH OEP

Upon adoption, a certified copy of the master plan should be filed with the city or town clerk or the clerk for the county commissions (see RSA 675:8 shown below).

RSA 675:8 Filing of Zoning Ordinances, Historic District Ordinances, Building Codes, Subdivision Regulations, Site Plan Review Regulations and Amendments.

All zoning ordinances, historic district ordinances, building codes, subdivision regulations, site plan review regulations, historic district regulations, and their amendments shall be placed on file with the city, town, or village district clerk, or, in the case of unincorporated towns or unorganized places, with the clerk for the county commissioners for public inspection.

As required by RSA 675:9 (see below), a certified copy of the master plan must also be forwarded to the New Hampshire Office of Energy and Planning, to be retained for their records.

RSA 675:9 Place for Filing Documents.

I. A copy of each master plan, zoning ordinance, historic district ordinance, capital improvement plan, building code, subdivision regulation, historic district regulation, site plan regulation or amendment which is adopted by a municipality shall be placed in a central file with the office of state planning; provided, however, that failure to file these documents or amendments with the office of state planning shall not affect the validity of the document.

Phase V: Implementation

*If you are
planning for a year,
sow rice; if you are
planning for a decade,
plant trees; if you are
planning for a lifetime,
educate people.*
- Chinese proverb



This chapter describes Phase V of the master planning process – implementation. The basic planning steps in Phase V include: Step 6: Implementing the Plan; Step 7: Monitoring the Plan; and Step 8: Amending and Updating the Plan.

Step 6: Implementing the Plan: a Summary of Available Tools

Without implementation, the master plan has no real value. The success of a master plan in shaping future growth patterns and influencing public policy decisions is dependent upon the degree to which the plan is actually carried out by those responsible for its implementation.

The last chapter of the master plan, the Implementation section, typically addresses implementation strategies and actions. Generally this consists of recommending changes to existing codes and ordinances to ensure that the plan is carried out.

However, codes and ordinances are not the only means available to implement a plan. Land acquisition; construction of roads, schools, and other public buildings; the limiting of highway access; and construction of public water and sewer services – to name a few activities – all play a part in bringing about the community envisioned in the

master plan. Public education related to these topics and the vision of the community as a whole is a key component of implementation.

The adoption of a master plan cannot by itself effect change. It requires separate, legally defined methods to bring about desired changes. Fortunately, all communities have access to a variety of tools that can be used to implement the master plan (see the table on the next page and Chapter 10, “Tools and Techniques,” for more information).

New Hampshire statutes provide municipalities with many options. Selected references are cited on the following page (also see <http://nh.gov/oep/laws/index.htm>

• Zoning	(RSA 674:16-34)
• Subdivision Regulations	(RSA 674:35-42)
• Non-Residential Site Plan Review	(RSA 674:43 and 44)
• Historic Districts	(RSA 674:45-50)
• Scenic Roads	(RSA 231:157 and 158)
• Driveways	(RSA 236:13 and 14)
• Excavations	(RSA 155-E)
• Capital Reserve Funds	(RSA 35: 1-18)
• Public Recreation	(RSA 35-B: 1-17)
• Conservation Commission	(RSA 36-A: 1-6)
• Agricultural Development Rights	(RSA 36-D; 1-14)
• Current Use Taxation	(RSA 79-A: 1-26)
• Acquisition, Development, and Disposal of Industrial Land and Facilities	(RSA 162-G: 1-17)
• Acquiring and Leasing Land for Industrial Development by Towns	(RSA 162-J: 1-17)
• Municipal Economic Development Districts	(RSA 162-K: 1-15)

The balance of this chapter provides an overview of the principle tools of plan implementation, as well as a review of a variety of marketing techniques for how to get people to use your plan. However, before proceeding to this material, it is important that you understand the need for zoning and master plan consistency.

Zoning and Master Plan Consistency

It is likely that your community's zoning regulations, zoning map, and perhaps subdivision regulations will need to be amended to be consistent with your new master plan. In other words, the land use tools that are used most frequently to guide and direct the growth and development of your community must reflect the visions and concepts set out in the plan.

Developing consistency is critically important. If your community has a planning staff, this can be addressed as part of the planning work program. If you don't have a planning staff, establishing a zoning review task force is often the first step of the process. You can also work with your planning board to identify members of the community who:

- are willing to commit to at least one year of monthly meetings in support of the project
- represent different factions and viewpoints regarding land use issues
- can work with other committee members to seek compromise solutions to difficult and sometimes polarizing issues
- are willing to speak openly and candidly about the impacts, both positive and negative, of a proposed zoning change

Changes to zoning and subdivision regulations can also be addressed by seeking the professional expertise of planners, including the regional planning commission. Generally speaking, citizen volunteer committees, unless they are made up of citizens who are comfortable with writing land use codes, will be less effective than professionals in producing zoning amendments and may take much longer to produce results. With this in mind, the community may wish to seek funds to hire a professional consultant who can work with the planning board to successfully complete the necessary changes. Unfortunately, no grant funding is available to communities for the purpose of amending zoning regulations and zoning maps.

Regulatory Actions

1. Zoning

Zoning is the process by which local governments divide the land area in their jurisdictions into districts or zones for the purpose of regulating the activities allowed and the height, bulk, and density of development in those zones.

It is important to bear in mind the distinction between a master plan and a zoning ordinance. Fundamentally, the master plan functions as a guide – it articulates the aspirations a community holds for itself. Zoning, in contrast, is the primary tool a locality uses to implement the land use element or future land use map of the master plan. For example, while the land use plan may recommend that an area be used for residential activity, it is the zoning ordinance that legally establishes a residential district, and delineates its borders on a zoning map, which is ordinarily incorporated by reference into the zoning ordinance.

If your zoning ordinance is inconsistent in any way with your master plan's recommendations, the zoning ordinance will prevail due to its legal status as an ordinance of law. Accordingly, when communities revise their master plans, they should also carefully review their zoning ordinances to ensure that the zoning provisions are consistent with the master plan's recommendations.

As communities have become more active in planning for their futures, so has zoning grown in both scope and complexity. Innovations include agricultural zoning, open space and conservation zoning, historic district zoning, mixed use zoning, performance zoning, and density bonus zoning, to name a few (see Innovative Land Use Controls in Chapter 10, "Tools and Techniques").

Many communities are now considering an array of smart growth principles in the development of their master plans (refer to Chapter 11, "Planning Concepts and Themes," for more information about smart growth). These principles are incorporated

into the community's overall zoning, subdivision, site plan, and building regulatory framework. To assist communities with the development of their master plan section on smart growth, the CD-ROM accompanying this handbook includes a smart growth audit ([click here](#)). The smart growth audit will allow you to review your community's policies, regulations, and ordinances, to determine where revisions may be needed and where smart growth principles can be applied.

2. Subdivision Regulations

Subdivision regulations are intended to govern the conversion of raw land into buildable lots and parcels. Subdivision regulations are an important plan implementation tool because they establish standards and requirements for land developments and outline procedures for the submittal, review, and approval of subdivision plats.

The subdivision review process generally has two stages: (1) the submittal of a preliminary plat, showing the layout of lots, roads, open space areas, utility and drainage facilities, and approximate dimensions, including preliminary plans and profiles; and (2) the submittal of a final plat, presenting the subdivision layout and other elements contained in the preliminary plat in greater detail and incorporating any changes that are required by the planning board and/or staff at the time of preliminary plat approval.

In recent years, many communities have expanded their subdivision regulations to address such matters as erosion and sediment control, the preservation of open space, regional stormwater management, and the placement of utilities. In communities that have no zoning, subdivision regulations usually represent the only control over the land development process.

3. Capital Improvement Program

It is quite likely that your master plan has a chapter devoted to community or public facilities such as schools, parks, libraries, streets, water lines, and sidewalks. In many instances, the master plan provides an inventory of existing community facilities, as well as a projection of needed community facilities. Some

communities never realize their projected community facility or public improvement needs, while others regularly bring theirs to fruition. The difference, in many cases, can be explained by the use of a capital improvement program.

The purpose and description of the CIP is summarized in RSA 674:6 below:

674:6 Purpose and Description. The capital improvement program shall classify projects according to the urgency and need for realization and shall recommend a time sequence for their recommendation. The program may also contain the estimated cost of each project and indicate probable operating and maintenance costs and probable revenues, if any, as well as existing sources of funds or the need for additional sources of funds for the implementation and operation of each project. The program shall be based on information submitted by the departments and agencies of the municipality and shall take into account public facility needs indicated by the prospective development shown in the master plan of the municipality or as permitted by other municipal land use controls.

The CIP is a management and fiscal planning tool that identifies and prioritizes needed public improvements and facilities. Properly designed, a CIP will enable a community to identify its capital needs, rank them by priority, coordinate their scheduling, and determine the best way to pay for them within the community's fiscal capacity. Other than its management tool capabilities, the CIP is not involved in the zoning and subdivision regulations of a municipality.

Organizationally, the CIP is a fairly straightforward document. Most CIP's feature three sections: (1) an overview of how the CIP process works; (2) a review of the community's fiscal condition; and (3) a descriptive listing of those capital projects recommended for funding during the CIP period. In addition to describing each project, this section typically includes a justification for each project's inclusion in the CIP and information on how it will be financed.

The CIP has a six-year timeline and is updated annually. The CIP is prepared most often by the planning board and adopted by the governing body, although the statutes provide that a capital improvement program committee can be established. Authorization for the adoption of the CIP is provided in RSA 674:5:

674:5 Authorization. In a municipality where the planning board has adopted a master plan, the local legislative body may authorize the planning board to prepare and amend a recommended program of municipal capital improvement projects over a period of at least 6 years. As an alternative, the legislative body may authorize the governing body of a municipality to appoint a capital improvement program committee, which shall include one member of the planning board, and may include but not be limited to other members of the planning board, the budget committee, or the town or city governing body, to prepare and amend a recommended program of municipal capital improvement projects projected over a period of at least 6 years. The capital improvement program may encompass major projects being currently undertaken or future projects to be undertaken with federal, state, county, and other public funds. The sole purpose and effect of the capital improvement program shall be to aid the mayor or selectmen and the budget committee in their consideration of the annual budget.

RSA 674:5 makes it absolutely clear that adoption of the master plan is required before the CIP can be formulated, and only the governing body of a municipality may adopt the CIP.

Non-Regulatory Actions

1. Establish a Task Force

A popular technique for seeking plan implementation is to establish a task force or a number of implementation committees assigned the responsibility of monitoring and implementing various recommendations and actions of the plan. This technique is helpful, as it reduces the workload of the

planning board vis-à-vis plan implementation and keeps recommendations and projects in the public's eye. A task force or standing committee can be made up of both public officials and community volunteers, as well as planning board members. Membership should be as broad as possible so that your community is well represented and no one member can influence the entire committee.

2. Conduct a Design Charrette

Another helpful method is to conduct a design charrette around a specific recommendation or action, thereby increasing public focus and attention on how best to implement it. Unlike approaches that devote attention to a variety of recommendations or actions in a committee, a design charrette is a much more intensive process. The event is typically held over several days, and upon completion, a design plan is developed that identifies numerous implementation strategies (for more information about charrettes, see Chapter 10, "Tools and Techniques").

3. Partner with Non-Profit Organizations

There are also many non-profit organizations – including land trusts, conservation groups, and bicycle clubs, to name a few – that can be helpful in master plan implementation. The New Hampshire Main Street Program is another useful program in master plan implementation. Often it provides recommendations related to economic development, downtown revitalization, historic preservation, and other areas addressed through participation in the program (see the Main Street Center web site at <http://www.nhcd-fa.org/mainstreet.html> for more information).

4. Reference the Plan in Local Decisions

The master plan should be referenced at public meetings and public hearings. The goals, policies, and recommendations of the plan must be integrated into the day-to-day activities of your community or it will not be fully utilized as a tool for guidance, focus, and change.

Ask your municipality's boards, commissions, and committees to utilize and reference the master plan in all their various projects, activities, and decisions, so that it becomes a common or required practice. The question that should be asked with respect to any municipal project or decision is: "Is it consistent with the master plan?" Consistency with all the applicable sections, goals, policies, and recommendations of the master plan should be clearly identified and documented as an integral part of any project or local decision.

It must become common practice to reference the master plan for it to be applied at every level of local government. Some communities have numbered all the key goals, policies, and recommendations in their plan so that they can be readily cited and reviewed at public meetings and hearings. This technique can be very helpful. The more a goal or policy is referenced, the more it can be identified and applied.

5. Prepare an Implementation Checklist

An effective way to implement the goals and recommendations of a master plan is to devise a checklist for use by the planning board and governing body. Your city or town officials and staff can use this checklist to assess progress, or it can be used as a device to inform the public, community leaders, boards, and commissions about the need to accomplish certain tasks. No matter how it is used, the checklist affords an opportunity to measure accomplishments and identify challenges.

At a minimum, a checklist should include

- each strategy or action step mentioned in the plan
- a relative timeframe for accomplishing each task (short-term, mid-term, long-term)
- the department, organization, or individual responsible for implementation
- the cost in dollars (best estimate)
- the cost in time (volunteer or paid)

Additional Strategies for Master Plan Implementation

The following additional strategies are meant to help you implement and market your plan, once it has been adopted and is ready to be used. Some of these strategies were developed by planners with the Pioneer Valley Planning Commission in Springfield, Massachusetts, who prepared the original *Planner on a Disc* handbook and interactive disc (see web site at: <http://www.pvpc.org/>).

1. Create a Success Story

Every great achievement begins with a small first step. An early success story will help to build momentum for more challenging and time-consuming tasks, such as changing the zoning map or building an industrial park. Your community should identify at least one “quick and easy” project, a project that can be accomplished, start to finish, within a hundred days.

2. Market Your Plan

Whether or not you can create a success story within the first hundred days of completing your plan, ultimately you must continue your public outreach efforts and look for ways to keep your master plan in the public eye. In order for people to value and use the plan, they must have access to it. The following suggestions are offered to help you publicize and market your plan:

- Start a town planning newsletter to distribute information about master plan implementation and other land use issues.
- Erect new signs identifying villages or neighborhoods within your community.
- Appoint a task force or committee to begin one of the “big” projects, such as amending your community’s zoning ordinance or zoning map.
- Sponsor an event to highlight a key issue – a downtown clean-up day, a tree-planting ceremony to initiate the revitalization of a neighborhood park, a guided tour of redevelopment sites in your business district, or perhaps a farm breakfast highlighting local farm products.

3. Make Printed Copies

Printed copies of the published plan should go to every municipal board, elected official, commission, committee, task force, agency, and department in your community that you can think of. Newly elected leaders should receive a copy when they assume public office. Libraries, schools, and other public places where people may go to find information should be given copies of the plan. Local real estate professionals, architects, engineers, surveyors, builders, lawyers, and bankers should also have copies of your plan. You should be creative and not overly selective in your distribution decisions. Obviously, you will need to plan your budget in order to make an adequate number of copies. Remember: it is the community’s plan, so get it out there for all to see.

4. CD-ROM

Instead of printing hard copies of your master plan, it can be duplicated on a compact disc and then distributed to the public in this format. Generally this alternative should be less expensive than publishing and printing your planning document, though that depends upon the size of your plan. If you were to print only an executive summary, it would be far less expensive. Of course, you can also post your plan on the Internet or your community’s webpage.

5. Prepare an Executive Summary

It is highly recommended that an executive summary stating the overall conclusions of the master plan be created to share key points with those who do not have time to read the entire document. The executive summary should be short enough to fit on a single piece of paper or several pages or on a fold-out, making it an affordable distribution option for almost every community. The executive summary should be widely distributed and given especially to all the schools, churches, social organizations, businesses, lawyers, and bankers in your community. (**click here to see the Nashua Master Plan as an example – <http://www.gonashua.com/planning/planningboard/masterplan/MasterPlan.asp>**). You may also want to consider leaving copies in doctors’ offices, train/bus terminals, and other waiting areas. Again, you will need to plan your budget in order to make an adequate

number of copies to blanket the community, as well as have copies on hand for the public at the town or city hall.

6. Prepare Poster/Newspaper Inserts

It is often helpful to develop visually intriguing posters that can describe and summarize the goals of the plan. These can be distributed around your community or reduced in size and placed as inserts in your community's newspaper(s).

7. Use the Internet

If your town or city has a website, put your plan (or at least the executive summary) online. If it doesn't have one already, the master plan is a great reason for your community to get a website. Online documents are affordable, available to all who have Internet access, and very flexible – changes are inexpensive and virtually immediate.

Additional Comments

It is important that you produce a clean, crisp master plan document that looks good, rather than a poorly designed report riddled with errors. The overall appearance and layout of your master plan is critically important in drawing people to it.

Many people, when they hear the words “master plan,” think of a thick document with lots of graphics and maps. But, as previously pointed out, master plans can take many different shapes and sizes. Plans can be short or long. They can be formally bound or placed in a loose-leaf or three ring notebook that allows sections to be easily replaced and updated as needed. However, presenting your master plan in a loose-leaf notebook can be expensive, depending upon the number of notebooks that you need to buy.

As noted earlier, you can reduce costs by printing short but colorful, eye-catching executive summaries. The value of the executive summary is that it communicates the key elements of the plan and can be widely distributed at not too great a cost. Similarly,

the executive summary can be published as a two-sided “fold out.” One side, for example, could show the community's vision of the future in words and images. The other side could show the future land use map and document the key policies of the master plan. Additionally, the executive summary or the entire master plan can be posted on the Internet. (For suggestions and more information about publishing and printing your master plan, refer to Chapter 10, “Tools and Techniques.”)

Steps 7 and 8: Monitoring, Amending, and Updating Your Plan

A master plan is never finished; like all dynamic systems, communities evolve. In order to maintain its relevancy, the plan must be updated on a regular basis. How often this occurs depends on the specific circumstances in your community. Some good rules of thumb, as well as the minimum requirements of state law, are provided below.

Annual Review – Monitoring the Plan

Once a master plan has been formally adopted, it should be kept current with changing conditions. This is particularly true with respect to major land use changes, policy revisions, and demographic conditions. There are no state requirements that a master plan be reviewed on an annual basis. However, it might be prudent to have the planning board, its subcommittee, staff, or appointed volunteers conduct an annual review of the plan to check its progress in being implemented and ensure that it stays current.

Simply going over an implementation checklist (as previously described) at a public meeting with the planning board could be sufficient to uncover any tasks that were neglected the previous year. Minor course corrections in policies or goals could also be identified and discussed. Any amendments to the master plan must be acted upon according to the procedures required under RSA 675:6.

Five-Year Review

RSA 674:3 II. recommends that revisions be made to a master plan every 5 to 10 years. However, the state statutes contain no prescribed procedures or recommendations for conducting this review. There is a good chance that after five years, enough things will have changed to make it worthwhile to take a comprehensive look at the plan.

It would be wise to begin revising and updating the plan one topic, section, or chapter at a time, five years after its adoption. This would provide the opportunity to review the entire document over the course of a few years. If revisions are needed, the planning board can elect to amend those sections of the plan immediately or wait until a comprehensive update is made. If the planning board elects to wait to amend the plan, an ongoing record of the needed changes should be maintained.

Ten-Year Review

When ten years have passed since the adoption of a master plan, it is time to consider a comprehensive update of the plan. A new planning and public outreach process should be developed to identify the issues and concerns that have evolved, changed, or appeared since the last plan. At that point, you should return to the beginning of this handbook for advice and recommendations on how to proceed.

Basics of Planning Theory

What Is Planning?

Everybody plans – we all make financial plans, travel plans, and work plans to help us achieve personal goals and objectives. Organizations and firms plan for strategic reasons and to gain a competitive edge. Plans help us to organize our time and to work toward our goals in a step-by-step fashion.

Planning is a widely used process that typically includes the steps below.

The Planning Process



People from all walks of life, and communities as well, use this method to prepare for the future, solve problems, clarify needs and objectives, set priorities, and achieve goals. Here are two definitions of community planning.

Planning is a process of preparing in advance, and in a reasonably systematic fashion, recommendations for programs and courses of action to attain the common objectives of the community. – (Anthony Catanese)

We define planning as a process for determining appropriate future action through a sequence of choices. – (Davidoff & Reiner, A Choice Theory of



Planning, Journal of American Planning Association, 1962)

Professional planners use the planning process as a procedure to address a broad range of issues in a pragmatic, impartial, and rational way.

A planner may use the planning process when addressing a single subject or a wide range of subjects, such as capital improvements, housing, or transportation. Comprehensive planning covers a wide range of interrelated topics that are of concern to the community. Documents that result from this process are called comprehensive plans, general plans, or master plans.

Community volunteers and planning board members can employ the same planning process that professional planners use. As the definitions above suggest, when communities engage in planning, they seek answers to such fundamentally important questions as

- What are the common goals and objectives of my community?
- What might happen to my community in the future?
- What do we want to happen?
- How best can we achieve the future outcome we desire?

Why Do Communities Plan?

Communities plan in order to improve the quality of public choices and decisions. Some communities do not plan until they encounter a crisis that demands an immediate public decision; then they hastily construct their plans after considering only a limited number of actions.

Having a master plan is worthwhile for the following reasons:

1. Planning is a means of preparing for the future. Planning enables us to look before we leap and avoid costly and sometimes embarrassing mistakes. Through planning, we come to understand what must be done now and in the future to achieve our goals.
2. Planning makes sense. For a community, planning involves working together to balance competing interests. Planning also forces people to think and organize their time, resources, and efforts.
3. Planning helps the community recognize its priorities. With a master plan, local officials can address the most urgent needs first.
4. Planning is intended to serve the public interest. Planning does not attempt to stop or replace market forces of supply, demand, and price, but to guide those forces by establishing rules for development and growth.

5. Planning helps the community set sound policies for development. A master plan makes it easier for private developers and builders to respect and understand community desires and public policies as they develop their individual projects.

6. Planning helps identify both the positive and negative aspects of a community. What is good should be protected; what is bad should be changed; what is possible should be done.

7. Planning helps to maintain a satisfactory quality of life. In towns with a decreasing population, planning may offer ways to maintain a positive quality of life and revitalize the community. In growing communities, planning offers a way to protect and, if possible, enhance the quality of life.

8. The planning process is a means of educating people about their community. Developing a master plan provides an opportunity for public participation in the decision-making process.

As suggested in *Planner on a Disc*, there are a number of practical reasons why communities should prepare a master plan or update an existing plan. Here is an abridged version of some of those reasons.

- to ensure that growth and development is orderly and predictable
- to save taxpayers money by avoiding premature development and costly sprawl
- to plan efficiently for capital improvements
- to circumvent frivolous legal challenges and law suits by minimizing their likelihood
- to provide greater certainty to property owners and developers regarding what to expect with regard to growth and development
- to protect environmental resources and aesthetic qualities
- to strengthen local identity
- to ensure that basic infrastructure and public facilities and services will keep pace with new development
- to make local decision-making more open and democratic
- to ensure fairness and avoid favoritism
- to ensure that development meets local needs

Why Should Your Community Want to Prepare a Master Plan?

A master planning effort should be undertaken only when the community understands the purpose, needs, and benefits of planning. As stated in *Planner on a Disc*, a master plan should be

- descriptive in articulating the desires of the community into a vision statement
- productive in setting forth goals and objectives for the community's future
- part of a continuous planning process that is timely and responsive to the needs and desires of the community
- prescriptive in defining the legal basis for land use regulations and a capital improvement program

How Much Will It Cost to Prepare a Master Plan?

Unfortunately, master plans cost money. If your town or city is unwilling to spend money preparing a plan, then it will probably be difficult to prepare one. The amount of money required can vary considerably, depending on the type of plan you prepare and the nature and duration of the planning process you follow.

One way to estimate how much you should budget is to evaluate the plans that neighboring, or other similar-sized communities, have recently prepared and then find out how much each of those communities spent on preparing its plan. Another approach is to ask a planning consultant or your regional planning commission to give you a rough estimate. This estimate can then be refined based on what you decide to include in your plan.

Most planning consultants charge in the range of \$50 to \$100 an hour, depending upon their level of expertise and how far they have to travel to reach your community. Determining the number of hours can be difficult. Unfortunately, there is no generalized rule of thumb to estimate the cost, which could vary anywhere from \$30,000 to \$50,000 to prepare a new master plan for a community with a population

of under 10,000, and \$50,000 to \$100,000 for a large municipality.

As described in *Planner on a Disc*, some of the factors that affect the cost of preparing a master plan are as follows:

- the amount of citizen participation and the number of community and/or neighborhood meetings and events held during the planning process
- the level of agreement or disagreement in the community (that is, how fragmented or divided the community is on key issues)
- the geographic specificity you want your plan to achieve, and the amount of work that needs to be done to prepare digitized maps and upgrade GIS to that level
- the extent to which newsletters and mailings are used to keep citizens informed and involved in the planning process
- the amount of effort put into different methods of disseminating information to the citizens at all stages of the planning process, and the number of different methods employed
- the extent to which the community uses computer technology to increase citizen involvement in the planning process (by creating an interactive webpage and/or making use of email)
- the nature and content of the final plan – how comprehensive it is and the level of detail required
- the form in which the plan is published, the number of copies of different versions (full versions and executive summaries), whether it contains color maps and photographs, and whether copies of the plan are given away or whether a fee is charged
- the length of time allotted to the planning process

As the above list suggests, many of the factors that affect the ultimate cost of preparing a master plan are directly or indirectly related to the amount of time and effort expended in involving citizens in the planning process, in keeping people informed, and in making sure that important policy decisions and choices are publicly and openly discussed. Thus, there are very real risks in trying to prepare “cheap” master plans. The less money you budget for the important task of involving and informing citizens, the greater the risk that you will end up preparing a plan that lacks broad-based public support.

Helpful Hint: Before determining your budget, first decide on the contents of the plan, the type of master plan you would like to prepare, and what planning approach would work best for your community. (For information about what should be included, the different types of master plans, and the various approaches to planning see Chapter 3, “What Should Be Included in Your Master Plan,” and the section on Different Ways to Plan within this chapter.)

How Long Will It Take to Prepare a Master Plan?

The type of master plan you prepare and the amount of data you collect will have a direct bearing on the length of the planning process. Comprehensive master plans typically take much longer to prepare than plans that focus on a limited number of key issues or that pertain only to a limited part of your community. Some communities have taken three or more years to prepare a comprehensive plan; others have succeeded in preparing comprehensive master plans in six months to a year.

As stated in *Planner on a Disc*, when thinking about how long the planning process will take, keep in mind that the length of time it takes to prepare a plan can be affected by

- the geographic size and diversity of your municipality
- the complexity of the land use and development issues your community faces
- the degree of agreement or disagreement within your community regarding pressing problems, priorities, and possible courses of action
- your community’s track record or degree of past success in plan-making
- the degree to which local elected officials understand and support the need for planning
- the extent to which local citizens feel that local government representatives and local government boards and commissions understand their concerns and represent their interests

Once work has begun, there is a tendency for the people involved to feel that it is imperative to get the

plan finished as quickly as possible. Often this feeling of urgency is based on a fear of what might happen in the interim, while the plan is being prepared. The desire to complete the plan quickly can also be motivated by a desire to reduce the cost. But if you make the planning process too short, you may undermine public support for the plan in the long run.

Helpful Hint: Take as much time as needed to prepare your master plan, so that everyone can be proud of it and it has broad-based public support. But don’t take so long that you lose momentum. (For more information about the different types of master plans and the various approaches to preparing your plan, refer to the section on Different Ways to Plan within this chapter.)

Is Hiring a Professional Planning Consultant Necessary?

You may assume that a master plan can only be prepared by a professional planner. Professional planners have a great deal to contribute to the planning process. But the planning process is essentially a process of translating community values into public policy for the future. You can’t hire someone to do that for you.

Planning board members, whether elected or appointed, are important political leaders in their community. Working in conjunction with the political leaders on other boards and committees, they can articulate the community’s values and recommend policy. There is a lot you can accomplish, and have the responsibility to accomplish, without deferring to professional planners.

In contemporary thinking, a community does not hire a professional planner to “prepare a plan for us.” The professional planner, whether a hired consultant or public staff, should assist the leadership of the community in identifying common goals and policies. It would be presumptuous for a planner to state what they are. Whether you have a planner to work with or not, community goals and policies are uniquely in the province of the planning board.

The strengths of professional planners are best utilized during the steps that occur before and after the plan formulation – in technical analysis and techniques for implementing the master plan. They can perform a number of studies that identify trends affecting your community; and the professional planner is particularly skilled in the implementation stage – identifying ways to carry out goals and policies. The planner can also point out the potential implications of various alternatives. In the formulation of the master plan, the professional planner is best seen as a resource for policy makers. Professional planners are skillful at outlining citizen participation techniques, translating expressions of community values into goals and policies, and the technical draftsmanship of policies in the plan.

If you want to produce an effective master plan, it makes sense to hire and make use of professional planning assistance. Even cities and towns that have full-time planners often seek assistance from professional planning consultants or the local regional planning commission in carrying out much of the related work. There are a number of reasons to do so.

First, planners employed by the community have a responsibility to administer and defend existing land use regulations. It can be difficult to perform that duty and, at the same time, propose a different set of regulations.

Second, when making major policy decisions in the future, it may be necessary for citizens and elected officials to face up to some hard choices. An independent, outside planning consultant is in the best position to objectively frame and put controversial policy choices before the community without the interference of political pressures.

Last but not least, hiring an outside planning consultant is a way to introduce fresh perspectives and viewpoints into the planning process.

Nevertheless, local staff planners should, and can, play important roles in the process of preparing a plan, and in managing and overseeing the work of a planning consultant. If you have a full-time city or town planner and choose to hire an outside planning consultant, be sure to ask your planner to play a

major role in drafting the scope of services for the planning consultant and to participate in the planning process.

Some Helpful Hints in Preparing Your Plan

As identified by the planners who prepared *Planner on a Disc*, below are a number of helpful hints to keep in mind as you proceed.

- Developing a plan is not easy, but it can be fun.
- Preparing a plan for the future requires leadership and risk-taking.
- Planning is controversial – but so is *not* planning.
- People find it easier to say what they are *against* than what they are *for*.
- Having a zoning ordinance is not the same as having a plan. Zoning is a tool that helps implement the plan. Your plan tells why particular zoning provisions are necessary and justified, and why they serve a public purpose. Having a plan helps a community defend its zoning ordinance when and if specific zoning provisions are challenged in court.
- People who speak the loudest and are most vociferous in calling attention to their views are not necessarily representative of the community as a whole. Make sure you devise a planning process that draws out the views of a cross section of citizens.
- Striking the right balance and charting a middle course is difficult, but possible. Look for “win-win” solutions.
- Intergovernmental communication and cooperation is essential in achieving land use planning objectives. Consult and seek the advice of neighboring communities before adopting plans and policies that may have an effect on those communities. If you do, then you have reason to hope and expect that they will do the same when and if they consider plans and policies that may have an effect on *your* community.
- Planning needs to be ongoing to be successful. You can’t just prepare a plan and then forget about it. For a plan to be effective, it needs to be referred to and used as the basis for making land use and development decisions.
- Revisit the plan from time to time and be sure to evaluate how it is working.

- Don't allow your plan to become obsolete or ineffective. If it isn't working as intended, change it! If, after a certain length of time, parts of the plan are no longer current, revise and update those portions. Don't allow the validity of an entire plan to be undermined by allowing a portion of the plan to become obsolete.

When Should You Update an Existing Plan?

Most communities in New Hampshire have some form of an adopted plan. Whether it is an older comprehensive plan or a relatively new master plan, it does not really matter so long as it is being used and implemented. If your plan is not being used, you should find out why and proceed to update it or replace it with a new plan.

Most planners agree that, if an existing plan is well over seven years old and significant changes have occurred since it was prepared, your community may need a completely new plan. However, if your existing master plan is about five years old, it may only need to be revised or updated. It is usually less expensive and less time-consuming to update an existing plan than it is to prepare a new plan.

In fact, it is highly recommended that all master plans be updated every five years. In some cases, all that may be required is an updating of relevant data and information, findings, and recommendations. The overall goals of the plan and the visions for the community may still be relevant. If your existing master plan is in a loose-leaf binder or in electronic format, the updating process can be easily accomplished without the expense of printing a new plan.

Daniels, Keller, and Lapping in the *Small Town Planning Handbook* (APA Press 1995), prepared the following checklist (on page 92) to help communities decide when it is necessary to update an existing plan. If your community meets these guidelines, do not wait too long to begin the process of updating your plan.

Different Ways to Plan

Although the purpose and intent of planning is fairly simple to understand, there are many different ways to approach the task of preparing a master plan. Before you decide which chapters to include in your plan, you will need to ask: (1) Which planning approach should I follow? and (2) What type of master plan should I prepare? How you answer the first question will determine how you proceed with the next. The type of master plan that you prepare is directly related to the planning approach you employ.

The Various Approaches to Planning

While there is no one right way to plan, there are several ways to do it and several types of plans that you can prepare. One aim of this handbook is to help you decide which planning approach and what type of plan would be best for you. There are five generally accepted approaches to planning.

1. Comprehensive planning
2. Issue-oriented planning
3. Functional planning
4. Strategic planning
5. Vision-based planning

It is best to select an approach and stay with it as you prepare your master plan. However, if you find that that approach is not working, for whatever reason, there is no reason why you cannot stop and change direction. Moreover, you may find that a combination of approaches is more useful than just one. Perhaps you need to be comprehensive in your scope, but more visionary or strategic in your goals and policies. Flexibility in planning is important and often necessary. Equally important is preparing the best and most successful plan possible for your community (see chart on page 102).

When Is It Necessary to Update an Existing Master Plan?

1. Your existing plan is more than five years old.
True ____ False ____
2. Your town's public services are no longer able to meet current and projected future needs.
True ____ False ____
3. Your existing plan does not contain an economic development chapter.
True ____ False ____
4. Your existing plan does not address current and future housing needs.
True ____ False ____
5. Your existing plan does not discuss community water quality and supply needs and sewage and solid waste disposal.
True ____ False ____
6. Your map of existing land uses is not up to date.
True ____ False ____
7. Your zoning map does not agree with your map of desired future land uses.
True ____ False ____
8. Your zoning ordinance is no longer consistent with the goals and objectives of your plan.
True ____ False ____
9. Your existing plan lacks an inventory of environmental features, such as natural areas, wildlife habitats, prime agricultural land, wetlands, natural hazards, and areas with development limitations.
True ____ False ____
10. Your plan lacks any maps of community facilities and service areas.
True ____ False ____

If you answered "true" to a majority of the above questions, it is likely that you need to update your existing plan.

1. Comprehensive Planning

Comprehensive planning is the traditional approach to town planning. It covers

- a broad range of topics
- a wide geographic area
- a long time span

Comprehensive planning follows the traditional four-step planning process: the identification of problems and issues; the establishment of goals and objectives; data collection and analysis; and plan

preparation and implementation (see Chapter 2, "The Master Planning Process," and NH OEP Technical Bulletin 3, *Formulating the Master Plan*, Summer 2003).

The distinguishing features of comprehensive planning are that it covers a wide range of topics, is ambitious in requiring numerous studies that take time to complete, and is long range in scope (typically covering a 10- to 20-year period). (For more information about comprehensive planning, refer to the reports and publications identified in Chapter 12, "Bibliography/Resources.")

2. Issue-Oriented Planning

Some communities do not get around to planning until a problem or a crisis has occurred. Issue-oriented planning focuses attention on the problems and issues of greatest concern to a community at a particular point in time. This is an “old-fashioned approach” to planning, in that it is designed to identify and address narrowly defined, specific community problems and issues above all else.

What Is Involved?

Community members are brought together to identify and prioritize the pressing issues facing the community. There are many ways to bring people together (refer to Chapter 10, “Tools and Techniques,” for a variety of citizen participation examples). Once the issues have been identified, you develop first a process to rank them and then a plan to address the most pressing issues.

Advantages of This Approach

This is the classic approach to defining the scope and contents of a master plan; the reasons to plan are well-documented. People are more naturally inclined to support a community effort that addresses pressing issues than they are a top-down approach that imposes a process upon the community.

Does This Approach Make Sense in Your Community?

An issue-oriented approach to planning makes the most sense for a community that has a pressing land use issue or problem, and when there is broad agreement within the community that the problem needs to be addressed. This approach is also effective for communities that have little or no prior experience in developing a plan. By focusing on a particular issue, the community increases the likelihood of succeeding with its planning effort.

3. Functional Planning

It is not necessary to produce all of the chapters in a master plan at one time. What is important is that you make progress in addressing the important issues and choices facing your community. Perhaps

one or two topic areas are more important in your community right now than others. For example, a lot of energy these days is being directed towards addressing transportation concerns. Perhaps there is pending a well-publicized transportation improvement, a new highway or bypass, or a parking garage that will take up precious space downtown. If this is the case, it might make sense to address and complete 1 or 2 chapters of your plan first, and other chapters later on. This can be accomplished through functional planning. In many ways, functional planning is a slower version of comprehensive planning.

Is This Approach Right for You?

This approach might be right for your community if one or two issues are of pressing concern or if there is a lack of support on the part of the local leadership for comprehensive planning. It might also be a viable option if there are insufficient funds to permit the completion of a comprehensive plan.

4. Strategic Planning

Strategic planning is defined as “a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization (or other entity) is, what it does, and why it does it” (Bryson, p. xii and p. 5). It has also been defined as “the process of the development of strategies for the accomplishment of specified goals and objectives with respect to a set of issues” (Kaufman and Jacobs).

There appears to be no widely accepted definition of strategic planning as it is applied to local government. However, strategic planning offers local government a new planning approach.

The strategic planning process begins with the identification of key decision makers in the community and its “stakeholders” (those individuals or groups with an interest in the outcome of the decisions made as a result of the planning process). The next step in the process is to identify strategic issues by making a “situation assessment,” sometimes known as the analysis of “strengths, weaknesses, opportunities, and threats” (SWOTs). Major emphasis should be placed on the selection and application of strategies to resolve identified issues and attain desired goals. The principal steps in strategic planning are

1. Scan the environment and select key issues.
2. Formulate goals or missions for the key issues.
3. Analyze each issue, developing a list of community strengths and weaknesses.
4. Develop strategies that are realistic and take into account those strengths and weaknesses.
5. Implement strategies using public and private resources.
6. Monitor and update the plan to ensure implementation.

Strategic planning and traditional comprehensive planning have a great deal in common. Both processes are based on the concept of goal-setting and the identification of decision makers and stakeholders. Strategic planning tends to narrow the range of stakeholders, while comprehensive planning tends to cast a wide net. This makes strategic planning more manageable; it's easier to reach a consensus through strategic than through comprehensive planning. On the other hand, comprehensive planning may develop a broader base of citizen support. Neither planning approach is going to be very successful in communities where there are wide differences in values and positions among citizens.

Strategic planning appears to focus its data collection and analysis on situation assessment. What are the issues? What forces bear on the issues? Comprehensive planning, on the other hand, often produces an insatiable appetite for data and data analysis; it can become an expensive and time-consuming fetish.

There appears to be little consensus as to the timeline for strategic plans – some say it should be long-range (20 years), and some say short-range (3 to 5 years). Comprehensive plans prepared by traditional methods usually work on a long-range timeline, though occasionally the timeline can be short-range.

The strength of strategic planning lies in its consideration of the methods that are to be used to attain the desired vision of the future, the goals of the plan. In other words, emphasis is placed on plan implementation. Strategic planning, in that sense, can be considered “pro-active” and comprehensive planning “reactive.”

Strategic planning is best applied when you are concentrating on one topic, or a few topics, at a time. Comprehensive planning requires consideration of a very broad range of topics that affect the quality of life in a community, all at one time. It is probable, therefore, that strategic planning can be accomplished more quickly and efficiently than comprehensive planning.

For these reasons, strategic planning is not well suited to the preparation of the traditional comprehensive plan or to the contemplation of long-range issues, which often evade clear definition, and which involve a multitude of interrelated topics.

However, strategic planning appears to be well suited to the consideration of immediate problems and to the identification of strategies to resolve them in the near future. It therefore may be classified as short-range in nature.

5. Vision-Based Planning

Vision-based planning, instead of looking primarily at community issues and trying to solve them, imagines what a community should look like in the future and then develops a plan to achieve that vision. This visioning process is unique, but it is often included as an element of a variety of master plans. It is a positive approach to planning and can be very inspiring.

What Is Involved?

Your goal is to analyze past and current trends, seeking to answer such questions as “Where have we been?” and “Where are we going?” – then to step back and ask the community, “Where do we want to go?” You want to create a shared vision of the kind of community you hope to achieve within a certain number of years. Presumably there will be a difference between where you are going and where you want to go, so you develop a plan to move the community toward its desired future.

Does This Approach Make Sense in Your Community?

A vision-based approach to planning is likely to work best in environments where people are willing

and able to join collectively in group processes, to share their views, and to listen respectfully to one another. It does not work as well in hostile environments where people are antagonistic.

A vision-based approach can also work well in communities where there are charismatic leaders who are willing to serve as conveners, and in communities that have planning staff who are skilled in facilitating group process sessions, charrettes, and the like. (For more information about the visioning process, see Chapter 5, “Community Visioning.”)

The Different Types of Master Plans

There are five types of master plans.

1. The comprehensive master plan
2. The small-area master plan
3. The functional master plan
4. The strategic master plan
5. The abridged master plan

Each type of master plan has distinguishing features and characteristics, as well as unique advantages and disadvantages in its development and application (see chart on page 103).

1. The Comprehensive Master Plan

The comprehensive plan has three unique characteristics: (1) it includes a broad range of master plan elements (all fifteen chapters); (2) it encompasses the entire municipality; and (3) it employs a long-range view (usually 10 to 20 years into the future).

The preparation of a comprehensive plan is the most ambitious undertaking of all plan types. It typically takes more time and costs more than any other kind of master plan. Yet it is the most common and traditional approach to planning. It addresses all the relevant topics and issues affecting a community's future and may include chapters on such topics as education, construction materials, open space, and travel and tourism, as determined by the community.

Preparing a comprehensive plan may be right for your community if the following circumstances apply:

1. There is a good track record of past planning success.
2. Your community already has a comprehensive master plan in place.
3. Local leadership supports long-range planning.
4. There are a variety of topics that should be studied on a community-wide basis.
5. There are no major planning issues or problems that need immediate attention.
6. The community can afford to take a year or more to prepare the plan.

The disadvantages of a comprehensive plan are

1. It is expensive and time consuming and requires the collection of a wide variety of data that must be analyzed.
2. The public participation processes may take a long time to complete and may be difficult to organize. It is usually much harder to get citizens from a broad spectrum of the population to consider a wide range of topics than it is to get them to consider a narrow range of topics.
3. Sometimes the tendency to recommend actions concerning the distant future closes off options better left open.
4. It is difficult to secure commitments for, and participation in, long-term projects.
5. Long-range plans tend not to be useful as the basis for compiling short-range capital improvement programs, as they tend to contain statements of general policy rather than descriptions of specific projects.
6. Long-range plans are not particularly well suited to serving as guides for short-term zoning decisions; this can cause problems, as zoning is required to be consistent with the comprehensive plan.
7. The means to implement long-range plans are often not apparent, or do not exist, while the plan is being prepared or reviewed. This introduces substantial uncertainty into the planning process.
8. Most people, including the public, have difficulty conceptualizing future conditions. With no clearly defined path, the public can become bewildered when thinking about how to get from where we are today to where we want to be a generation from now.

9. Comprehensive plans are lengthy and often contain more data and information than can be easily read and digested. Also they are costly to print and publish.

2. The Small-Area Master Plan

Small-area plans have the following unique characteristics: (1) they address specific districts, neighborhoods, or small geographical areas within a community; (2) they are generally mid-range (5 to 10 years) in scope; and (3) they cover multiple topics, but tend to contain greater specificity on a small-area basis than does a comprehensive plan.

It is desirable to prepare small-area plans for all the geographical areas of your community, if time and budget permit. However, given limited resources, small area plans should at least be prepared for those areas where changes are either occurring or anticipated, such as

- central business districts (downtown revitalization)
- historic preservation districts
- threatened open space preservation areas
- redevelopment areas
- high growth areas with many subdivisions, or where a high concentration of commercial and industrial growth is anticipated
- areas where there is a high interest in community design

Because small-area plans contain specific development recommendations for the area being studied, these plans can then be combined to form one complete master plan for your community. Comprehensive plans often include small-area plans that address certain regions, areas, or neighborhoods within a community. In this fashion, all of the fifteen sections of the master plan (see Chapter 3, “What Should Be Included in Your Master Plan”) can be addressed on both a community-wide and a small-area basis.

A small-area plan may be right for your community if the following applies:

- Planning for the entire municipality is not feasible at one time.
- Your community already has neighborhood plans in place.
- There is local leadership and support for planning within each geographical area.
- Your community is highly fragmented (divided both physically and socially).
- Certain areas of the community are changing more rapidly than others.
- You can combine your small-area plans into a complete community-wide master plan.

The disadvantages of a small-area plan are

- You may not be able to combine your small-area plans into a complete community-wide master plan.
- It does not adequately address changes, problems, or issues that are consistent across the community and need to be addressed on a community-wide basis.
- It diverts attention away from community-wide problems and issues and focuses most on special areas.

3. The Functional Master Plan

Functional plans are plans prepared for one specific topic, with tie-ins to related subjects. Some examples are flood hazard mitigation, mass transit plans, bicycle paths, housing, and open space. Functional plans have the following characteristics: (1) they address one master plan element or subsection at a time; (2) they may cover an entire community or a sub-section thereof; (3) they may be either short-range (1 to 5 years) or long-range (10 to 20 years) in scope; and (4) they can stand alone as a separate plan or be combined as part of the community's master plan.

Most long-range functional plans covering a specific subject or topic on a community-wide basis could be appropriate as an element in a community's master plan. For example, a ground water management and protection plan that covers the entire community could be an element of the master plan.

Short-range functional plans that address subsections of the community are often quite specific. Local circumstances will usually determine whether they are suitable for inclusion as elements of a master plan, or whether they should be treated as stand-alone plans. In either case, short-range functional plans should be consistent with long-range functional plans, and all functional plans should be consistent with the overall community master plan (Anderson, 1995).

Preparing a functional plan may be right for your community if the following applies:

1. Planning for the entire municipality is not feasible at one time.
2. It makes more sense to complete 1 or 2 master plan elements first and then address the other 13 or 14 master plan elements later on.
3. Your community already has in place a number of functional plans for various elements of your master plan.
4. You can make better progress in achieving the development of a community-wide master plan one element at a time.
5. There are one or two issues or topics of major concern in your community or there is a lack of support on the part of the community power brokers for preparing or updating the master plan at one time.
6. The financial support available for planning is insufficient to permit you to develop a full-blown master plan at one time.
7. You can combine your functional plans into a complete community-wide master plan in the future.

The disadvantages of a functional plan are that

- It is a slow process that takes years to complete, if at all.
- It does not adequately address changes, problems, or issues that are consistent across the community and/or need to be addressed on a community-wide basis.
- It directs attention away from community-wide problems by focusing on special problems or topic areas.

- It may not address all fifteen elements of the master plan, as provided for by state statutes (this does not represent a legal concern, however, as only two of the elements are mandatory by state law).

4. The Strategic Master Plan

The strategic master plan is a version of the comprehensive plan. However, unlike small-area plans and functional plans that can become component parts of a composite master plan, the goal when preparing a strategic master plan is to identify a small number of issues that are the most important to a community's overall vitality, today and in the future, and then take action on those issues to ensure the best possible future for the community.

The basic characteristics of a strategic master plan are: (1) it is narrowly focused on what have been determined to be the most pressing and important issues of your community; (2) it can be either short-range (2 to 5 years) or long-range (10 to 20 years) in scope; (3) it encompasses the entire area of your community; and (4) the elements, or chapters, that are included in the plan are based on the priority issues identified by the community.

A strategic master plan may be right for your community because

- It does not try to address all issues.
- It can employ either a short- or long-range perspective.
- It introduces a regional perspective to local planning by forcing people to compare the relative strengths and weaknesses of their community with those of others in the region.
- It reminds participants that their community is in competition with other communities in attempting to attract desired land uses, industries, investments, funding, and the like. The community must devise and implement workable strategies.
- It can increase a community's competitive advantage by transforming perceived local weaknesses into strengths. Strategic planning is generally recommended in communities that are experiencing stagnation, decline, and/or diminishing

investments and that need to think realistically about their options and to develop practical strategies in a regional context.

The disadvantages of preparing a strategic master plan are that

- It is not truly comprehensive in that it diverts attention away from less important issues and problems that must be addressed on a community-wide basis.
- It does not include all the sections of a comprehensive plan.

5. The Abridged Master Plan

Abridged plans consist primarily of the vision and land use chapters, which are mandated by state law. None, or only a few, of the traditional, now optional, elements of the master plan – such as an implementation section and a chapter on natural resources – are included. As required by state statute, the abridged master plan must be based on a community visioning process. It must also be based on studies of population, economic activity, and natural, historical, and cultural resources, as needed to prepare the land use chapter. Those studies are then used to complete a series of maps and to develop goals and action plans.

The general characteristics of the abridged master plan are: (1) it primarily includes the two mandatory sections of the master plan as required by state statutes; (2) it encompasses the entire geographical area of the community; and (3) it is mid-range (5 to 10 years) in scope.

The abridged master plan is appropriate for communities with fewer than 10,000 people, where no professional planners are on staff, and where community volunteers and planning board members can assume much of the work. It may be useful for some communities of over 10,000 people, but those communities may also be financially able to develop long-range comprehensive plans with full-time professional planners on staff.

The following guidelines are offered for the preparation of an abridged master plan:

1. A planning process should be established that allows community residents and volunteers to prepare the bulk of the plan. Local residents should be encouraged to offer ideas, conduct research, collect data and prepare reports. A professional planner may be helpful in preparing parts of the abridged plan, especially the land-use section, but it should not be required that a professional draft the plan.

2. The municipality should ask for assistance from the University of New Hampshire Cooperative Extension Office in conducting the community visioning process through its Community Profile Project. (Refer to Chapter 5, “Community Visioning,” and Chapter 10, “Tools and Techniques,” for more information about the community visioning process and the UNH Cooperative Extension Community Profile Project.)

3. The amount of information to be included in the plan must be flexible and need only serve the interests of the community and meet the basic legal requirements of the state statute. Foremost among these is that the plan should always include a land use plan and maps that show both the present and the future (desired) land use pattern in the community. **Click here to launch A Step-By-Step Guide for How to Prepare a Future Land Use Map.** A flexible planning document will facilitate effective updates and express new community goals or present new strategies for achieving current goals.

4. The plan must be a valid document upon which to base (a) land use regulations and (b) advance planning efforts to aid in the efficient use of community resources, such as the capital improvement program, community development initiatives, and the revitalization of town centers.

5. The plan must be reasonably inexpensive to prepare. It should no more than 50 to 100 pages in length. The objective should be to produce a plan for under \$10,000, exclusive of printing costs.

The cost of an abridged master plan will tend to increase with the size of the community and the level of involvement by planning consultants and/or regional planning commissions.

Generally, the smaller the town, the lower the cost, as fewer data sources are needed; but this is not a hard and fast rule. Many communities with populations of fewer than 2,000 people do not have readily available data, and it can be expensive to collect. This handbook encourages communities to make use of local volunteer help whenever possible. While professional assistance may be needed in certain areas such as land use, natural resources, and economic development, it is recommended that you contact county, regional, and state agencies and the cooperative extension service for planning assistance. It is also recommended that your community not overlook graduate and undergraduate programs in community planning. It might be possible to arrange for a small team of students, under faculty supervision, to assist in preparing your plan. Often volunteers are able to provide the necessary information and services at a much lower cost than would be charged by a private consultant.

6. The final suggestion is that an abridged plan should be timely. It should be completed within a year, reviewed annually, and updated every 3 to 5 years. The best time to prepare the plan, especially for communities of over 2,500 showing active growth, is within the third to sixth year of each decade. This is because the plan relies heavily on data collected by the US Census of Population and Housing. Preliminary census results are usually available one full year after the beginning of each decade. This data will remain useful for several years, but as time passes between census counts, new estimates and projections will begin to be needed.

The advantages of preparing an abridged master plan are that

- It is relatively easy and inexpensive to create, and community volunteers can perform most of the work (thus, professional assistance may not be needed).
- It is not necessary to address all fifteen sections of the master plan as described by state statutes. Only the two mandatory sections, on visioning and land use, are required.

- It can employ either a short-range or a long-range perspective.
- It can be initiated and carried out by local citizens working with the planning board.
- It can be readily tied into local capital improvement programs and other advanced planning initiatives.
- It can be easily updated.

A disadvantage of preparing an abridged master plan is that it is not comprehensive.

No matter what type of plan is developed, your community's master plan should at least

- provide a concise baseline of data about your town's environment, natural and cultural resources, population, housing stock, economic base, needs, and opportunities
- include a description of the trends that have affected your community and make projections about how those trends might continue or change in the future
- articulate a shared community vision of what you want your town or city to be like in the future
- outline the growth management policies and objectives that are to shape your local regulations and guide your public decisions.

Which Master Plan Makes the Most Sense for Your Community?

Now that you have a good understanding of the different planning approaches and the basic types of master plans, it should be much easier to determine which master plan makes the most sense for your community. The following charts on page 102 and 103 can help you in making this decision.

As summarized by the planners who prepared *Planner on a Disc*, a master plan is generally intended to

- portray a vision for the future
- establish goals and objectives for land use, development, community facilities, and infrastructure

- examine the past changes and current trends to project future trends
- identify community-wide issues and concerns
- identify a community's weaknesses and strengths
- express the desires, aims, wishes, and ambitions of the community
- chart a course for growth and change
- promote the public interest and core virtues of the community
- build support and consensus around ideas
- identify alternatives
- offer recommendations and guidelines for decision-makers
- shape growth policies
- establish a foundation for implementing land use regulations
- set forth strategies, actions, and recommendations
- set forth guiding principles and concepts

Other Related Community Plans

Downtown Revitalization Plan

Your community may have undertaken downtown development projects or participated in a Main Street Program that required some planning or documentation for a grant. If you have a solid downtown plan that is supported by your community, you should try to integrate the major components of this plan into your master plan and concentrate on implementing critical downtown strategies that will benefit the community.

Economic Development Plan

A good economic development plan charts the course for establishing or maintaining a sustainable local economy that offers employment opportunities for local residents, opportunities for existing and new businesses, and a healthy revenue source for your community. Often these plans are prepared by your regional planning commission or your local economic development commission on behalf of your community. If your community has adopted such a plan, the major elements and recommendations of that plan should be included in your master plan, particularly in the chapter on economic development.

Open Space Plan

Many communities across the state are developing open space plans to ensure that adequate open land – including natural areas, forests, playing fields, and hiking trails – is protected in the future. Often these plans are prepared by your regional planning commission on behalf of your community. The major components of these plans should be integrated into your master plan, particularly in the chapters on natural resources and recreation.

Tourism and Historic Preservation Plans

Quite often, detailed tourism or historic preservation plans have been prepared for your community that identify needs and outline a course of action. These plans have short- and long-term recommendations that can be referenced or incorporated into your master plan; they can save you many hours of research and can help to establish your community's goals in the areas of economic development and cultural and historical resources.

Transportation Corridor Plans

Your community may also have separate transportation or corridor plans, indicating road pavement conditions, road construction information, right-of-way characteristics, traffic characteristics, proposed improvements, and the like, which have been adopted as formal reports. Some community public works and highway departments maintain less formal plans in the form of road condition maps, upgrade and maintenance priority lists, or historical road reports. Sidewalk plans, rail corridors, and bicycle facilities are often incorporated into transportation plans; in some cases, these may be separate functional plans themselves. Large development proposals may also require traffic impact analysis to determine the future adequacy of the local transportation network. All of these plans can be useful in the transportation chapter of your master plan.

Natural Hazards Mitigation Plan

See discussion on page 21.

Master Plan Examples:

Provided below is a sampling of master plans from various municipalities across the state. These plans are identified for informational purposes only and are not a list of recommended plans.

Comprehensive Master Plans

Goffstown Master Plan, Goffstown, NH, 1997
(see: <http://www.townofgoftstown.nh.us/planning/masterplan.shtml>)

Town of Raymond, NH, Master Plan, 2002
(see: <http://www.raymond-nh.com/masterplan.pdf>)

Small-Area Master Plans

Concord 2020 (in process)
(see: <http://www.onconcord.com/>)

Portsmouth Master Plan 2003 (in process)
(see: <http://www.cityofportsmouth.com/masterplan/index.html>)

Functional Master Plans

City of Keene Master Plan, 1993-97
Not available on-line at this time.

Strategic Master Plans

Strategic Master Plan Update 2000, Bedford, NH
Not available on-line at this time.

Visionary Master Plans

Nashua Master Plan
(see www.gonashua.com)

Relationship Between Planning Approach and Type of Master Plan

	Comprehensive Master Plan	Small-Area Master Plan	Functional Master Plan	Strategic Master Plan	The Abridged Master Plan
Comprehensive Planning	★	★			
Issue-Oriented Planning	★	★			
Single-Topic Planning			★		
Strategic Planning				★	★
Vision-Based Planning	★	★	★	★	★

Key Features of Master Plan Types

	Comprehensive Master Plan	Small-Area Master Plan	Functional Master Plan	Strategic Master Plan	Abridged Master Plan
Distinguishing Features	Comprehensive, ambitious, broad and general. Encompasses the entire community.	Focuses on small areas or regions of the community. Individual plans can be combined to form a completed master plan.	Focuses on one or two specific topics or elements at a time. Individual plans can be combined to form a completed master plan.	Realistic - does not try to address all issues or elements, but focuses on the strategic issues and elements that are the most pressing.	Focuses primarily on land use. Less ambitious, more general. Encompasses the entire community.
Scope	Long-Range (10-20 yrs.)	Middle-Range (5-10 yrs.)	Middle-Range (5-10 yrs.)	Short- (2-4 yrs) to Long-Range (10-20 yrs.)	Short- (2-4 yrs.) to Middle-Range (5-10 yrs.)
Key Elements (Chapters)	Includes most, if not all, of the 15 elements or chapters as provided by state statutes.	Includes most, if not all, of the 15 elements or chapters as provided by state statutes.	Looks only at one or two elements at a time on a comprehensive, community-wide basis.	Includes some of the basic 15 elements but focuses mainly on the key strategic issues/topic areas.	Includes only the 2 mandatory elements - the vision and land use sections.
Relative Cost	High	Low to Medium	Low to Medium	Medium	Low
Relative Time Commitment	Long - 1 to 2 years (depending on size of community)	Short to Medium - 3 to 6 months	Short to Medium - 3 to 6 months	Short to Medium - 3 to 6 months	Short to Medium - 3 to 6 months

Tools and Techniques

Build-Out Analysis

A build-out analysis is used to estimate and describe the amount and the location of future development that may be allowed to occur within a specified area or a given community under current development regulations. Through a series of maps and charts, the build-out analysis provides an estimate of the total number of houses, commercial/industrial square footage, and population that could result if all the unprotected, buildable land within a community or specified area is developed, if no more land is permanently protected, and if local zoning and subdivision regulations remain unchanged. This information is instrumental for estimating future demands on public infrastructure and the environment. It is also beneficial in allowing a community to test its development regulations – to get a glimpse of its possible future when all the remaining buildable land is developed to the maximum extent allowed under existing regulations.

In evaluating future development possibilities, a build-out analysis can help answer such questions as

- How much land area can be developed under existing land use regulations, and where will this growth occur?
- How many residential lots could there be, and how much will the population of the community increase at full build-out?
- Are there areas projected for development that the community would prefer not to develop, or to develop at lower densities?
- Are there areas that the community would prefer to develop at higher densities?
- What steps should the community be taking now to accommodate future growth?

When using a build-out analysis, a number of different future development scenarios can be compared, and a community can gain a better sense of the type of development pattern it would like to achieve. This in turn helps to remind us that we should plan if we desire to effect a different end result.



It is recommended that a build-out analysis be conducted primarily for those communities experiencing rapid growth and a dwindling supply of vacant land. It is not recommended for those communities that have preserved large amounts of vacant land because the analysis could result in misleading representations of the amount of buildable land available.

How to Conduct a Build-Out Analysis

There is a wide range of techniques and models used to conduct a build-out analysis, but basically such an analysis boils down to a two-phase process that involves mapping and quantitative estimates. The use of GIS significantly improves the process and makes it more efficient to complete. The following instructions are provided to assist small communities that may desire to undertake a simple, manual build-out analysis. Larger cities and towns will want to use GIS. The methodology remains the same, except where noted.

Stage I: Mapping and Interpretation

The first step is to prepare a large base map of your community, which can be mounted on hard backing or on a wall, along with four clear overlay sheets. Additional overlay sheets will be added later to illustrate possible future development scenarios for your community.

The base map should show the following:

- the boundaries of your community
- a north arrow and map scale
- existing streets
- tax parcel boundaries
- surface water areas (lakes, rivers, streams)

On separate overlay sheets:

1. Delineate all the land area within your community that cannot be developed due to public ownership, conservation easements (deed restrictions), utility easements, or natural factors such as wetlands, floodplains, and steep slopes over 25%. This information should already be available from your natural resources inventory maps and your development constraints map.
2. Delineate all the undeveloped land area within your community that could be developed in the future. This information should already be available from your development opportunities map. It is important when delineating this information that you include both vacant lands and buildable lands. Buildable lands are those

that are suitable for development, i.e. free from any development constraints.

3. Delineate all the land within your community that has already been developed and contains existing buildings and structures and lot lines. This information will be available from your existing land use map. You do not need to show each residential, commercial, or industrial land use type. You can combine all your developed land together as one overlay.
4. Delineate the zoning district boundaries from your community's zoning map. All you need to do here is just show the zoning district boundary lines.

When you have completed all four sheets, lay these sheets on top of your base map. Each one of the overlay sheets represents a data layer, if you are using GIS. Divide your community into equal geographical sections or regions. Within each section, take a close look at the undeveloped but buildable land area and how it is currently zoned. Identify the tax map number of each parcel of buildable land. Within each parcel, highlight the land area that is buildable and calculate the acreage.

For each buildable land area that is zoned residential, apply your community's road standards and minimum lot size and frontage requirements, as if the land could be developed to the maximum extent allowable. In other words, estimate mathematically the number of housing units that could be allowed on the land based on these regulatory standards. For commercial or industrial zoned land, estimate the number of buildings or the maximum building size that could fit on each parcel, keeping in mind the possible use and your community's setback, parking, landscaping, building height, and other zoning standards. This should result in a floor area ratio.

Depending upon the size and scale of your base map, you may be able to mark physically, or illustrate directly on the overlay sheet, the number of new house lots or the relative size of the buildings that could be developed. Keep a running total of the number of new house lots and buildings and the acreage (the estimated future development potential) within each section or geographic region.

If your community has a high percentage of undeveloped or underdeveloped land, you may want to prepare staggered overlays showing a possible progression of growth in those areas. For example, the first overlay might show growth along major roads and on large parcels. The next overlay could show growth on the next most desirable parcels. The last overlay would show growth on the least desirable parcels. In this fashion, you would be developing and comparing possible growth scenarios.

Stage II: Quantitative Analysis

After you have completed all your build-out estimates, the next step is to quantify this information. This is where the use of GIS mapping layers and associated databases comes in handy. Under many GIS build-out models, the total number of potential new residential dwellings is calculated simply by dividing the total buildable residentially zoned acreage by the minimum lot size as set forth by the zoning district. Sometimes a development factor is applied to give this estimate a measure of reality, as it is to be expected that design issues and required rights-of-way in a large subdivision will often result in a smaller number of lots created than the maximum allowed. This approach is acceptable, but an even more realistic figure can be determined by estimating the number of new dwellings on a parcel-by-parcel basis, based on zoning and the size and shape of the individual parcel.

If you quantify your estimates in this fashion, you should prepare a spreadsheet for each section or region of your community, identifying the total acreage of buildable land by zoning district, the total number of potential new dwelling units, and the number of commercial and industrial buildings/square footage by zoning district.

Using your community's average household size, population, and housing data, you can then project a future population size and total number of housing units. You can also calculate the future population and housing density of each section or region if you know the square mileage of each area. Density is typically expressed as the number of people or housing units per square mile. This information is particularly helpful as your community considers the demands that future build-out growth will have on

schools, water supply, sewage, utilities, and the like. It is also helpful for evaluating your community's overall growth potential and in shaping the future development of your community with a preferred development scheme and future land use plan.

After you have completed all of the overlays depicting maximum growth potential of the area under study, take a close look at the resulting development patterns. Build-out analyses are meant to promote an understanding of the implications of current land use practices and the consequences of existing land development regulations. Is this how you would like to see your community develop in the future? Are there alternatives? If so, what are they?

At this point you should consider the various future development scenarios that were developed under Phase II of the master planning process. It is possible to use the same methodology as described above to prepare build-out estimates for each scenario. After you have completed this, compare the build out results and select the scenario that best fits your community's goals and visions.

Helpful Hint: *It is advisable to facilitate a public workshop at this point to present your findings and to seek public input. Once your community has had an opportunity to evaluate the results of the build-out analysis and to compare various development scenarios, the next step in the master planning process is to select a preferred development scheme. The preferred development scheme will form the basis of your future land use map.*

Strategies for Getting the Public Involved

1. Publicity

Publicity can take many forms. You can provide press releases to local and regional newspapers and cable television and post them on a web page. You can write articles for local newspapers, newsletters, your community cable channel, radio stations, and the Internet. You can prepare flyers and send them out to a variety of local organizations. You can send information, fact sheets, and community surveys and questionnaires home with school children. You can also post flyers around town, especially at locations frequently visited by residents, such as the town hall,

post office, library, convenience stores, pizza shops, and so forth. Effective also are telephone calls and word of mouth. You can also promote workshops to friends and neighbors.

2. Information /Neighborhood Meetings

It is helpful to hold at least one community-wide meeting or public forum about the master planning process. A series of meetings can be rotated around the various neighborhoods in your community, so the greatest number of people can attend. The goals of these meetings should be: 1) to educate people about your community planning process; 2) to explain how each resident can participate in the process; 3) to describe how the plan will affect them; and 4) to reiterate how important their input is. These meetings also present a good opportunity to gain feedback and recommendations on issues.

3. Charrette

A charrette is an intense, interactive, problem-solving process conducted through meetings held to focus on a specific issue. If you hold a charrette, it is advisable to videotape it and then broadcast it over the local cable channel. Public workshops should be utilized as an avenue for disseminating information and collecting input. You can use the initial public workshop as an opportunity to educate the public on the purpose and benefits of the master plan. It is important to relate the plan to individual concerns, to maintain interest in the process. The workshop can also be used to identify the main goals for the various elements of the plan.

A charrette should be interactive. A facilitator should be identified ahead of time to guide the discussion. It is important to make everyone feel as though they are part of the process. If there is a small turnout, the entire group can take part in an open discussion. For a larger turnout, the group may be divided into subgroups, each charged with discussing a specific topic for a certain period of time. Once the allotted time is up, the larger group can reconvene and share the results of individual discussions.

4. Focus Groups

A focus group is another means of getting residents involved in master planning. Unlike public meetings, surveys, or even charrettes, focus groups are geared to one specific topic. Generally they are focused on individual chapters of the master plan. The group is used to test, brainstorm, and discuss specific aspects of the master planning process. Focus groups also serve as an effective way of bringing diverse interests together.

5. Interview

Another way to involve people in the master planning process is to interview them, either in person or by telephone. Like the focus group, an interview is a means of getting people involved. You should develop a survey form or questionnaire before conducting an interview, so that you know ahead of time the types of questions you want to ask. Your planning board, town officials, representatives from the business community, and representatives from various other community organizations can help you determine who should be interviewed.

Community Surveys

The citizen survey is one of the most basic means of collecting data and opinions representing the experiences and beliefs of all citizens and, where appropriate, of specific population groups within the community. More importantly, it is one of the means by which citizens can have direct input into the planning process.

1. Why Conduct a Survey?

One of the most critical steps in any public planning process is to find out what citizens are concerned about. Identifying key issues through public meetings can be very effective. However, many people simply cannot, or will not, attend a meeting or public forum. A community survey allows residents to have direct input into the planning process while maintaining their anonymity. A good survey seeks to

uncover ideas and opinions from a large, representative number of citizens in an affordable, well-organized, and focused manner. **Click here for sample surveys.**

For the master planning process, the most popular surveying tool is the mailed survey form. Other surveying techniques include telephone and in-person interviews. Each technique has its strengths and weaknesses. Combinations of these techniques can be used to collect specific kinds of data.

2. Information Needs

When contemplating which questions should be asked on a citizen survey, it is important first to identify the information that you are seeking and the people with whom you will be working. It is equally important to consider how you will be collecting and organizing the information from the survey forms. Keep your survey simple and easy to understand.

3. Things to Keep in Mind

The planners from the Pioneer Valley Planning Commission who prepared the original *Planner on a Disc* suggest the following tips for the development of a community survey:

- Think about what you absolutely need to know from citizens – do not ask frivolous or unnecessary questions or you will risk losing your audience.
- Consider the time commitment you are asking from the person responding. It should take no more than thirty minutes to complete the survey.
- Make it easy to answer. If you have opted to conduct a phone survey or interview, keep the questions short and uncomplicated. If you are distributing a written form, make it easy to read and understand. Provide a pre-addressed envelope with adequate postage, as well as alternative return methods such as drop-off boxes at the library, town office, or local schools.
- Plan the questions so that the answers are “ready to use.” One of the most expensive and time-consuming portions of a surveying project is data tabulation and analysis. The answers to your questions are useless unless you can access the information in a usable form.
- Quantifiable results are the easiest results to

understand and summarize. Whenever possible, give the respondent a set of choices. Open-ended questions are rich in information, much as a mountain is rich in gold. The problem is, getting to the goldtakes quite a bit of effort. Consider using open-ended questions sparingly, for responses that are difficult or impossible to categorize.

4. When Conducting a Survey

- You don’t have to survey every last citizen or household in your community. Sampling allows you to obtain important information without the expense of a universal effort. The survey can be a useful awareness tool, as well as an information-gathering device.
- A universal survey will help you raise awareness in the community that the planning process is underway.
- Consider sampling certain questions in a universal survey. In other words, you may wish to send survey forms out to each household, but you do not need to tabulate each answer to each question.
- Advertise the fact that the survey will be taking place. Methods include: a pre-mailing announcement via postcard, a brief story or notice in the local paper, posters displayed in places that a cross section of citizens visit on a regular basis (post office, store, town hall, recycling center, school), and announcements at public meetings and events.
- Provide incentives for responding to the survey – a coupon for a free donut or cup of coffee for each survey returned, access to the results for special interest groups (perhaps a summary of results pertaining to senior issues or school issues), door prizes for the first 100 respondents, or another such reward. Appeals to civic pride and duty are successful with a certain number of citizens, but everyone appreciates giveaways.
- Allow a reasonable amount of time for people to respond – not less than two weeks for a mail survey.

5. Follow-Up

A successful survey is one that’s highly publicized before it hits the streets and after responses have been tabulated. Use whatever means necessary to get the results out. Allow citizens to see them so that they feel their time has yielded something tangible. A pub-

lished summary could be mailed to citizens, if your budget allows, or a synopsis might be reproduced in a local newspaper or on the community website.

Tips for Writing Press Releases

1. Format

It's best to limit any public release to one page in length and to make sure the first paragraph says concisely what you want the media to cover or announce. Subsequent paragraphs can reinforce the message of the first. If you must spill over to a second page, type "MORE" at the bottom center of the first. The release's first page should be on letterhead, with all subsequent pages on plain white paper. Pages of a press release are not numbered.

2. Content

The general rule for a press release is that it should be about one thing only – one specific bit of news. This may appear limiting, but it forces you to concentrate on tailoring the release to your reader, who is not the general public but an editor or reporter. A general release, or one that tries to cover too many topics of the same weight, will annoy the editor, who is trying to figure out what is being announced. If the release's value will be enhanced by background or tangential information, write a backgrounder to accompany it.

The media must have complete information that fills in as many gaps as can be anticipated. The more answers the release gives to the standard journalistic questions *who, what, where, when, why, and how*, the more accurate the resulting story will be.

Finally, the press release needs to cue the media on what you want them to do. Do you want them to make an advance announcement that will get people to attend a meeting or event? Do you want them to cover the meeting/event and write about it? Both? Consider these questions when you write the release.

3. Timing the Release

Your media cueing leads to the all-important consideration of timing. For example, if you want to give

the public plenty of advance notice for a conference, media outlets need to receive the release at least a couple of weeks in advance; you should indicate "For Immediate Release," along with the current date. If you want news outlets to wait until a certain date to run the information, indicate "ADVANCE – August 1, 2004," for example. If you just want the media to cover something but don't want them to announce it beforehand, indicate that by stating, "Not for advance release – media coverage only," or words to that effect. **Click here for a sample press release.**

Printing and Publishing Your Master Plan

Most publishers will tell you "it's all about communication and presentation"; what they are referring to is layout and design. And they are right, to a certain degree. The appearance of your document says a lot about its contents; how it is packaged and presented is also critically important. Whether you should go about the expense of hiring a publisher or look for ways to publish your plan by less expensive means is an important consideration. The answer obviously depends upon your budget and the expectations within your community for a quality master plan product.

Before you make your decision, find out whether there are any publishing or graphic design artists in your community who would volunteer their skills and time. If so, you are way ahead of the game. Quite often, they can take a dull-looking report and add photographs, graphics, and other design features to enhance its overall image. They might also design a logo that could be used throughout the document.

Alternatively, you may have staff working for your municipality who have experience in desktop publishing and printing and who can assume many of those responsibilities. However, there is only so much that your staff can accomplish. To produce a top-quality product, you may have no choice but to engage a publishing expert. If your community has a planning consultant, he or she may have the experience to handle this responsibility; but as a rule, the municipality is left to address this issue. That is why there are so many dry and dull-looking plans sitting on shelves, collecting dust.

The cost for design and layout work can range from \$50 to \$100 per hour, depending upon the size of the job and how you want your plan presented and printed. One of the advantages of using a publisher is that she or he can often get a reduction on printing costs, which are a major budgetary consideration. Most publishers have established business relationships with printers and can assume the entire job from start to finish, freeing you from having to make separate arrangements for graphic design, layout, and printing. This can serve as a huge advantage if you do not have the time to manage the entire process. The publisher can also give you advice on how best to publish your plan within your budget.

Whether you work with staff, volunteers, or professional publishers, you will need to decide exactly how you want your plan to look – its size, binding, cover page, paper stock, and the number of printed copies. You will also need to decide whether you want certain pages and maps printed in color. All of these decisions will affect the total printing cost of your job.

1. Estimating Costs

Most publishers will give you a total cost estimate to do the job, from layout and design to printing and binding. Typically, this estimate will include first, second, and final layouts of the completed master plan. Editing and proofreading are generally a shared responsibility. Upon your sign off, the publisher will submit the job to the printer for printing and delivery.

When you receive the publisher's estimate, you should request a breakdown of the costs. Your printing costs will generally be determined by the following factors:

1. The number of hard copies of the plan you request
2. The number of pages in your document (single or double sided)
3. The number of colored pages in your document
4. The weight and size of your pages
5. The number of color slip-sheets and interior tabs
6. The type of cover and binding

Examples of actual cost estimates for the printing of fifty master plans and four thousand copies of an executive summary are provided below:

2. Continued Estimate for Design, Layout, and Printing

The designer will provide the town with first, second, and final layouts of the completed master plan. The consultant working with the town and planning board will proof and edit the layouts. Upon final client approval, the designer will submit files to the printer for final delivery and printing of fifty full-colored documents. It is estimated that the final master plan will contain 180-200 pages. To provide for easy updating by the town in the future, the final printed master plan document will be provided in one-inch capacity white binders.

The copy of the completed master plan will be supplied by the consultant both as hard copy and electronic (MS Word) files, as well as clean letter-sized printouts for scanning. Maps and charts will be reproduced in an 8.5" x 11" format. The consultant will provide approximately ten photos as original prints to be scanned by the designer. The designer will design a color slip-sheet and interior tabs, and will format the text pages, adding graphics (in Quark Express – Mac version). Proofreading includes checking the final layout for two revisions against the original documents to make sure all elements are included. Design and layout work will take 266 hours at \$75.00 per hour (\$19,950). Printing and cost of materials is \$1,000.

3. Continued Cost Estimate for Executive Summary Design, Layout, and Printing

The designer will provide the consultant with first, second, and final layouts of the completed executive summary. The consultant working with the town and planning board will proof and edit the layouts. Upon final client approval, the designer will submit files for final delivery and printing of four thousand copies of the executive summary. The completed executive summary will be supplied by the consultant both as hard copy and electronic (MS Word) files; maps, charts, and photos will be borrowed from the master plan and reproduced in an 8.5" x 11" format. The designer will design a cover, format the text pages, and add graphics (in Quark Express – Mac version). Proofreading includes copy review with editing suggestions and checking the final layout against original documents to make sure all elements

are included. Design and layout work will take 84 hours at \$75 per hour (\$6,300). Printing and cost of materials is \$7,700.

Maps

Geographical information is a critical component of any planning process. The ability to see important land use trends reflected on a physical map will greatly increase the validity and accuracy of the strategies developed in your master plan. Maps also play an important role in educating people and public officials about critical planning issues.

1. What Information Should Be Mapped?

The development of the sections you include in your master plan will, to a certain extent, determine the types of maps you will need. The following maps are identified according to their importance:

Land Use

- existing and future land use (necessary)
- development opportunities (recommended)
- subdivision/development trends (optional)
- build-out analysis (optional)

Transportation

- administrative and functional highway classifications (recommended)
- existing and projected traffic flow (recommended)
- road surface management system (recommended)
- traffic analysis zones (optional)
- accident data (optional)
- local intersection improvements (optional)
- other transportation improvements (optional)
- bicycle and multi-use trails (optional)

Community Facilities

- community facilities (necessary)
- special improvement/tax districts (optional)

Natural Resources

- environmentally sensitive areas (recommended – see the description on pages 20 and 21 and the basic

- natural resources inventory on pages 53-57)
- open space and conservation lands (optional)

Natural Hazards

- natural and community hazards (recommended – see the description on page 21 and the natural resources inventory on pages 53-57)
- development constraints (recommended)

Recreation

- recreational facilities map (recommended – this map can also be combined with the community facilities map)

Utility and Public Service

- utility service areas or separate public water and sewer maps (necessary)

Cultural and Historical Resources

- historical and cultural resources (recommended)

Regional Concerns

- regional setting (optional)

In addition to the above maps, many master plans also include

- a base map showing tax parcel information, roads, and hydrology
- a slope or topographic map
- a soils map
- a zoning map with recommended revisions

2. Additional Mapping Information

The Massachusetts Pioneer Valley Planning Commission's *Planner on a Disc* identified the following points to keep in mind when considering mapping for a master plan:

- Maps can be expensive to produce. Consider local resources and collect all the mapping information you have locally and from state and regional planning commissions before paying a consultant to create a new map.
- Consider historic maps as a resource for current mapping; some basic information does not change. Use older maps, wherever practical, to save time

and money when producing new documents. There may be information on older maps that simply does not exist anywhere else. Compare old information to new data and mapping so that your community can learn about historical changes in development patterns, the landscape, and local planning goals.

- Be wary, though, of older maps – particularly those of uncertain origin. If the information on the map is not documented, do not assume that it is accurate. Maps are tools and, as such, can be used to accomplish many things. If you do use information from an older map, be sure to document this fact on the newer map or in your plan or report.
- Do not be tempted to create maps just because you can. Use maps carefully and in the right context. The use of too many maps can decrease the effectiveness of the truly important maps, which communicate critical geographic information in a way that no other tool can.
- Use maps to address specific issues. A map showing all of the home-based businesses in your neighborhood or a map of subdivision activity since your last master plan can be an effective way to bring focus to a particular problem or success story in your community.

3. Sources of Maps and Mapping Data

- Municipal sources (Planning Department, Public Works)
- New Hampshire Department of Transportation
- Regional planning commissions
- GRANIT, Complex Systems Research Center,
- University of New Hampshire
- Federal government (USGS Topographic Maps)

[Click here to view sample maps.](#)

Visioning Models

1. The UNH Community Profile Project

The University of New Hampshire (UNH) Cooperative Extension Service has developed the Community Profile Project, which offers citizens an opportunity to work together in action groups to address issues in their communities. This process helps strengthen communities by enhancing

- citizen involvement
- community consensus
- positive energy
- future planning and visioning
- community spirit

Many cities and towns have conducted a community profile as a community visioning process for their master plans. As of this writing, the UNH staff is working on new techniques to organize the Community Profile Project for use in master plan projects (contact the Cooperative Extension Office to see the Town of Londonderry's Community Profile Project). Because the community profile process enables communities to take stock of where they are today and develop an action plan for the future, it has been helpful in developing widely accepted vision statements and community goals that have been incorporated into master plans.

The community profile works as a self-evaluation tool that draws on the collective wisdom of participants and helps to develop problem-solving abilities. It also provides a means for citizens to affirm community strengths, collaborate, and manage change. One of the major outcomes of the community profile is that it fosters more citizen participation in community and government affairs. The following eleven components form the basis for initial discussion during the community profile:

1. Effective community leadership
2. Informed citizen participation
3. Sense of community
4. Fostering health, families, individuals, and youth
5. Lifelong education and learning
6. Community services, facilities, and utilities
7. Recreation and cultural heritage
8. Working landscape and the natural environment
9. Economic vitality
10. Growth and development
11. Transportation

These components are recognized by community development researchers as key qualities that contribute to a healthy community. The community profile takes about 4 to 6 months to plan and organize

and a weekend (usually a Friday evening and all day Saturday) to implement. There are two distinct parts: the planning/preparation and the event itself. The planning is critical to the success of the profile. If the entire community is not represented within the event, or not given the opportunity to participate, the results will be open to challenge. The participants must represent a broad cross section of the community so the process is not perceived as an attempt by a specific group to impose its wishes and values upon the community.

The community profile event typically starts off with a potluck dinner on the evening of the first day. After presentations by the steering committee, the lead facilitator takes the community participants through a variety of exercises. As a large group, they are asked to share their positive or negative feelings about what their community is like now and what they desire it to be like in the future. All responses are recorded for inclusion in the final report.

The facilitator then introduces the components of a successful community, as noted above, and divides the large group into smaller discussion groups. On the morning of the second day, the lead facilitator welcomes participants back as a large group for reports on the results of the Friday night small-group discussions. Participants are asked what key issues they heard, and those issues are grouped by the lead facilitator into 6 to 10 broad themes. This is done with the consensus of the entire group. People then break into small working groups to discuss the theme of their choice. The small groups define problems or opportunities pertaining to the issue and what they hope to accomplish in the form of project goals. Potential problems or solutions are proposed, and these are rated on an impact-feasibility basis. Three projects are selected, based on their location on the impact-feasibility grid, to bring to the entire group.

At the end of the morning, the large group reconvenes to hear the reports from the morning's small groups. The lead facilitator asks, "Which project do you think we should move forward on? Which is the most important project for our town right now?" The large group votes on projects, and those with the most votes are worked on in the afternoon's small groups. Participants choose the project they want to

work on in the afternoon, addressing critical steps to implementation.

The final plenary session includes a discussion of the questions: "Where do we go from here?" and "What kind of communication system will exist? Can the group decide on future meetings?" A member of the steering committee closes the event, to give the community ownership of what has occurred, and a final report is prepared by UNH Cooperative Extension staff, including all the information recorded throughout the two-day event and in the plenary session. This report can then be used in building the vision statements of the community's master plan.

The advantages of the community profile are that (1) it is effective in that it narrows down numerous issues into community-defined projects and feasible action groups, and (2) it helps to re-energize community spirit and increase public participation in local government. The process is also community-driven and inexpensive. It requires only a modest cash payment to UNH, of approximately \$500. The community must raise additional funding to pay for food and materials, typically through contributions and donations.

2. Chattanooga, Tennessee

Chattanooga is one of the best-known examples of a community that addressed its problems through a visioning process. Chattanooga utilized a creative, consensus-building, participatory process to formulate a shared vision of the future. Through this process, the community set goals to achieve that vision, designed action plans, and implemented projects to achieve their goals.

In 1983, community members met to discuss ways to improve conditions in Chattanooga. Real change began in 1984, when citizens decided a new approach was needed. They realized that profound change would only result from a public process in which a shared vision for the future was created. Hence, the non-profit organization Chattanooga Venture was established. This organization would design and facilitate a strategic planning effort, working with citizens and community leaders, to identify a series of shared goals.

In 1984, Chattanooga Venture organized Vision 2000, a broad-based public forum that used heavy publicity to draw citizens from all parts of the community. At the heart of the process was the shaping of a vision for the future of Chattanooga, a descriptive synthesis of all the citizen brainstorming produced during the series of public meetings.

To develop this shared vision, Chattanooga Venture hired a facilitator with special expertise in establishing community visioning processes. While a consultant guided the process, a large pool of volunteers (professionals and citizens adept in facilitation and organization) assisted.

The visioning process was divided into three sets of meetings, with each set designed to produce a specific outcome. The first set of meetings was designed to generate ideas. The second set was aimed at organizing the ideas generated in the first. At this point, the community had developed a series of community goals and recommendations. The third and final set of meetings allowed the community to make a commitment to the vision.

Other regions have developed visioning programs that have much in common with the Chattanooga example, but they differ in some important respects.

3. The Oregon Model

Probably no state has been more involved in community visioning than Oregon. The Oregon model has four basic steps: a community profile (“Where are we now”), a trend statement (“Where are we going?”), a vision statement (“Where do we want to be?”), and an action plan (“How do we get there?”). This model suggests that a target year be chosen that is at least 10, but no more than 25, years into the future. A simplified version of this model can be completed in six months or less, while a comprehensive version can take a year or more. (Additional information about the Oregon Model is provided in Chapter 5, “Community visioning.”)

4. The Pennsylvania Model

This model, developed by the Center for Rural Pennsylvania, is an example of a visioning process

where quality of life is the object of visioning. Some questions to stimulate the formation of a vision under this model are: “What five things would really improve the community?” “What are the community’s principal values?” and “What things in the community should be preserved?” The process itself is broken down into five tasks: defining the community’s boundaries, inventorying and analyzing community resources, writing and adopting a vision statement, developing an action plan, and implementation.

5. The Missouri Model

This model has in common with the Pennsylvania model an orientation toward visioning the future community as a whole. The object is to focus on future possibilities instead of present or past problems. The centerpiece of the process is an action planning workshop that takes 3 to 5 hours and is typically held over 1 or 2 days. The workshop is almost entirely about formulating a vision and developing action plans to carry out that vision; community strengths and weaknesses and relevant trends are not considered.

6. The Arkansas Model

This model is similar to most of the others, in that it focuses on four basic questions: (1) “Where have we been?” (2) “Where are we now?” (3) “Where do we want to go?” and (4) “How will we get there?” Participants are asked to identify what they would like to see in their community in the future, and they may be prompted in specific areas such as economic development, education, and parks and recreation.

Innovative Land Use Controls

In addition to a build-out analysis, public involvement strategies, surveys, maps, and visioning models, the New Hampshire statutes provide for a number of innovative land use controls that can be used to help implement the master plan. These innovative land use controls may include, but are not limited to,

- timing incentives
- phased development
- intensity and use incentive
- transfer of development rights

- planned unit development
- cluster development
- impact zoning
- performance zoning
- flexible and discretionary zoning
- environmental characteristics zoning
- inclusionary zoning
- accessory dwelling unit standards
- impact fees
- village plan alternative subdivision

Planning Concepts and Themes

New Trends in Master Planning

It is interesting to note that, within the past several decades, many cities and towns have been experimenting with a variety of techniques to plan for the future, from forecasting in the 1950s and '60s, strategic planning in the 1970s, and futures projects in the 1980s, to visioning in the 1990s (Ames, 1993). As these techniques have evolved, so has the level of public participation. Today, public involvement is an essential element of the planning process. Not only is public participation valuable from a planning perspective, but it also provides individuals with the opportunity to make a difference (Theobald, 1987).



Similarly, many communities across New Hampshire have been moving away from the preparation of the traditional, long-range comprehensive plan to a shorter, more strategic, visionary master plan. One of the primary reasons for this is that comprehensive plans contain tremendous amounts of data and, as a result, have become excessively long and expensive to prepare. Today's master plans are more sophisticated and polished community planning tools. They are shorter, less expensive to prepare and publish, often strategically focused, and more action-oriented in scope and content.

While there has been a resurgence of comprehensive planning here and there, for the most part the master planning being carried out in New Hampshire communities is more narrowly focused and short-range in scope. Generally the long-range plan (20 to 30 years) is being replaced by short-range and mid-range plans (5 to 10 or 10 to 20 years) that are more in tune with the community's capital improvement program, local growth management issues, and the need for immediate land development measures and solutions.

We live and work today in a dynamic and fast-paced society that demands and expects immediate or near-term results. As is true with business operations, local government and community planning must keep up with the times. As a result, today's master plans are getting smaller in size, content, and scope, focusing primarily on the core issues facing communities and the key visions and principles that can guide the overall growth and development of the community.

In addition, short and attractive master plan executive summaries are being developed for widespread public distribution and marketing applications (**click here to see the City of Nashua Master Plan Summary which can be found at the following web site: <http://www.gonashua.com/>.**) The use of executive summaries helps to raise public awareness of a master plan. It also helps to keep key master plan principles and policies in the forefront as community decisions are made.

New planning terminology – such as smart growth, sustainability, and livable communities – is replacing many old master planning concepts, such as growth management, land capability, and quality of life. There is also a return to traditional urban design – the importance of design and place is being rediscovered, with particular emphasis on context-sensitive design and elimination of sprawl. Improved techniques in community organizing, study groups, and visioning are also being developed to achieve greater public participation in the planning process.

Advances in communications technology – Internet applications, powerful mapping, and geographic information systems, desktop graphics, and visualization software – are also being used to facilitate informed public decisions, enhance the design and the appearance of the plan, and market the plan to the public.

The publication of master plans is changing as well. More and more plans, community surveys, and maps are being placed on the Internet. This allows for substantial savings on printing and publication costs, including the distribution of executive summaries, and it gives communities greater exposure and accountability.

With all of these improvements, new planning models are being developed, including strategic master plans (see the Town of Bedford's strategic plan) and citizen-based focus groups and study circle planning efforts (see the Concord 2020 and the Portsmouth Master Plan 2003).

What can we expect in the future? It is likely that we will see more communities updating their master plans – not all at once, but one chapter at a time. With the most recent revisions to New Hampshire's master planning laws, it is possible that many communities will want to prepare the abridged plan. This is a shortened version of the traditional master plan; it includes only the two mandatory chapters required by the state statutes, a vision section and a land use section.

It is also quite likely that more communities will be conducting internal audits and policy evaluations of their existing plans and regulations through the use

of such pre-designed scorecards as the smart growth audit ([click here to launch audit](#)). We may see also more communities prepare functional single-topic plans for such issues as open space, natural hazards, historic preservation, and water resources protection. This change has been an ongoing process in response to local needs as well as new state and federal regulations. However, the fundamental purpose and function of the master plan at the community level cannot be altered or avoided; communities will always need to look ahead through visioning and provide opportunities for public involvement.

As New Hampshire's cities and towns continue to grow, we are likely to see more active citizen-based groups and community associations forming at a much larger community-wide scale. In time, those organizations may seek to develop the master plan through citizen-initiated planning efforts, working with city or town hall in a bottom-up, rather than a top-down, planning process.

In short, most of the planning trends we are seeing will have the overall effect of enhancing awareness and promoting acceptance of the master plan. Wider community support and public participation in the process will only lead to new and better planning models in the future.

Growth Management

Growth management is a planning approach that addresses the problems of rapid development. It is as much a philosophy as it is a collection of tools and techniques. Growth management is an approach that recognizes growth is inevitable, whether a community desires it or not. While it uses many traditional planning tools, such as the comprehensive plan, it uses them in new ways to guide how and where the community's share of expected growth is to occur. This helps to ensure that growth takes place in a way that is acceptable and beneficial to the community, while reducing its negative effects. Some common growth management tools include the Transfer of Development Rights (TDR), the Growth Management Ordinance (RSA 674:22), Timing of Development and Growth Management, and Interim Regulations (RSA 674:23).

Smart Growth

The toolkit offered by the Georgia Quality Growth Partnership (2002) describes smart growth as building “neighborhoods and communities that widen opportunities for pleasant, hospitable, and economically beneficial conditions for living, working, and recreating.” The Urban Land Institute also provides a simple definition of smart growth: “an evolving approach to development, the goal of which is to balance economic progress with environmental protection and quality of life.” The American Planning Association’s 2002 policy guide on smart growth (the entire text of which can be downloaded at: <http://www.planning.org/newsreleases/2002/ftp0502.htm>) defines it as follows:

Smart Growth means comprehensive planning to guide, design, develop, revitalize, and build communities that

- have a unique sense of community and place
- preserve and enhance valuable natural and cultural resources
- expand the range of transportation, employment, and housing choices in a fiscally responsible manner
- value long-range, regional considerations of sustainability over short-term, incremental, geographically isolated actions
- promote public health and healthy communities

Compact, transit-accessible, pedestrian-oriented, mixed-use development patterns, and land reuse epitomize the principles of Smart Growth.

In contrast to prevalent development practices, smart growth refocuses a larger share of regional growth within central cities, urbanized areas, inner suburbs, and areas that are already served by infrastructure. Smart growth reduces the share of growth that occurs on newly urbanizing land, existing farmlands, and in environmentally sensitive areas. In areas with intense growth pressure, development in newly urbanizing areas should be planned and developed according to smart growth principles.

There is broad consensus on the breadth and scope of smart growth, but there is less agreement on its basic principles. The New Hampshire Office of State Planning prepared a CD-ROM in April 2003 titled *Achieving Smart Growth in New Hampshire*. This CD-ROM identifies and describes the following eight major principles:

- | | |
|--------------|--|
| Principle 1: | Maintain traditional compact settlement patterns |
| Principle 2: | Foster the traditional character of downtowns, villages, and neighborhoods |
| Principle 3: | Incorporate a mix of uses |
| Principle 4: | Provide choices and safety in transportation |
| Principle 5: | Preserve New Hampshire’s working landscape |
| Principle 6: | Protect environmental quality |
| Principle 7: | Involve the community in planning and implementation |
| Principle 8: | Manage growth locally, but work with neighboring towns |

Discussed on this CD-ROM are three pilot communities within New Hampshire (Chester, Derry, and Pembroke) that participated in community self-study to determine if a disconnect between their vision and their regulations was contributing to sprawl.

Smart Growth Audit

To help assist your community in developing smart growth practices, a smart growth audit is included on this CD-ROM ([click here to launch audit](#)). A smart growth audit is similar to a financial audit, although the subject matter investigated and the principles applied are different. This audit provides you with an opportunity to evaluate your community’s land use policies and regulations for the application of smart growth principles. It further provides an opportunity to compare smart growth and conventional development outcomes as a result of your community’s plans and policies. This is important if you plan to include a smart growth chapter in your master plan.

Compact Growth

Compact growth is one of the principles of smart growth. The concept has been adapted from the principles of urban form and design. Basically, the objective is to limit the overall area for development in your community by creating a compact urban form. This objective is implemented through the use of urban growth boundaries. Compact growth also encourages the clustering of specific uses and densities of development where urban services are available or can be readily available.

Urban Growth Boundaries

Urban growth boundaries are basically zoning or master planning borders that lie at the edges of urbanized areas. The boundaries are designed to protect significant natural areas and provide separation between existing towns and cities and between urban and rural settings. Lands within the urban growth boundary should be accessible to transit, contiguous to existing development, planned, and zoned for urban uses. Complementary strategies include

- promoting intergovernmental coordination on comprehensive planning
- requiring a regional review of local plans
- encouraging interjurisdictional review of developments with regional impact

Integrated Planning

Integrated planning is a fairly recent concept that promotes the notion that land use, transportation, and air quality are highly dependent upon each other and thus require integrated planning. As expressed in a guidebook for integrating land use, transportation, and air quality planning, called *Managing Colorado's Future* (March, 1997), there are ten fundamental principles.

1. Have a vision.
2. Engage citizens early.
3. Think regionally, act locally.
4. Plan for the long haul.
5. Know where you are at all times.
6. Think carrot-and-stick.
7. Be consistent, complementary, and contradiction-free.
8. Ensure flexibility.
9. Commit to development that can be sustained over time.
10. Keep it simple.

Neotraditional Development

Neotraditional development is an emerging planning and design practice that has its roots in the New Urbanism Movement. It consists of a number of essential principles. These principles are briefly identified below.

1. Encourage a mix of land uses to make walking for some errands more attractive and feasible.
2. Reduce lot sizes. Traditional neighborhoods typically have lots that are a third to a quarter of the size of conventional suburban neighborhoods.
3. Reduce building distance from the street. Minimize distances between building entrances and transit stops.
4. Discourage abundant free parking. Research has shown that typical parking requirements of four spaces per 1,000 square feet of floor area are excessive and contribute to inefficient use of land.
5. Provide generous landscaping, paved sidewalks, and safe street crossings. Build streets that serve pedestrians at least as much as they serve motor vehicles.
6. Build streets that are narrower than conventional subdivision streets; require sidewalks, trees, and other pedestrian amenities.
7. Build neighborhoods within walking distance (approximately $\frac{1}{4}$ mile) of activity centers, shopping, and the like.

8. Plan a “density gradient,” in which higher densities are required near activity centers and transit stops (if available), with densities becoming lower as one moves away from those centers. Encouraging clustering of buildings in centers, shared parking facilities, and pedestrian/bike pathways connecting centers.
9. Prohibit the creation of cul-de-sacs unless pedestrian and bike access across the ends is provided. Encourage a grid or modified grid street layout that provide alternative routes to destinations.
10. Provide connections to neighboring developments to avoid “islands” of development that depend on collector streets for all travel between them.

Traditional Neighborhood Development

A traditional neighborhood development (TND) is a physical example of the implementation of neo-traditional development principles.

Bibliography/Resources

Visioning

- ***A Guide to Community Visioning: Hands-On Information for Local Communities.*** Steven C. Ames, Revised Edition, APA Planners Press, 2001. This guide will help citizens understand the connection between the kind of place they want their community to be and the policies that will support their vision. It shows how to design and implement an effective visioning process and provides ideas on how to use graphics in visioning. The revised edition updates profiles of communities originally involved in the Oregon Visions Project. Contact Planners Book Service (312) 786-6344 or BookService@planning.org.
- ***Planning for the Future: A Handbook on Community Visioning.*** 2nd Edition, The Center for Rural Pennsylvania. This guide helps communities to begin thinking about and planning for the future. Its focus is on the process of visioning, not the outcome: defining and creating vision, elements of successful visioning, and helpful case studies. To obtain this resource contact the Center for Rural Pennsylvania, 200 North Third Street, Suite 600, Harrisburg, PA 17101. Tel: (717) 787-9555 or <http://www.ruralpa.org>.
- ***Chattanooga Visioning, Chattanooga, Tenn:*** Through their two visioning projects, Vision 2000 and ReVision 2000, the citizens of Chattanooga have been able to express their concerns and help create objectives for the future of their city. Case study available on-line at: <http://www.sustainable.org>.
- ***Bridging to the New Century: Portland Future Focus Strategic Plan,*** Portland Future Focus, City of Portland, Portland, Oregon, August, 1991.
- ***Charting a Course for Corvallis: A Case Study in Community Visioning,*** Oregon Visions Project, Steven C. Ames, American Planning Association (Oregon Chapter), Gresham, Oregon, May 1989.
- ***Choices for Oregon's Future: A Handbook on Alternative Scenarios for Oregon Planners,*** Steven C. Ames, Oregon Visions Project, American Planning Association (Oregon Chapter), Gresham, Oregon, June 1989.
- ***Community and Quality of Life – Data Needs for Informed Decision Making.*** National Academy Press (<http://www.nap.edu>). National Research Council. 2002. This publication “offers recommendations for collaborative planning across space and time. ...It discusses how to measure the ‘three legs’ of livability (social, economic, and ecological) while accounting for politics and personal values. ...It reviews a variety of decision models and tools such as geographic information systems (GIS) as well as public and private sources of data.”
- ***Community Goal Setting.*** Smith, Frank J. and Randolph T. Hester, Jr. Stroudsburg, PA. Hutchinson Ross Publishing Co. 1982. The authors of this book extol the value of participatory goal setting for communities, describe

personal experiences, offer techniques for an effective goal-setting process, and present case studies.

- ***Critical Choices for Greater Portland***, Steven C. Ames, Editor, Columbia Willamette Futures Forum, Portland, Oregon, May 1983.
- ***Future Focus 2010: A Vision Statement About Corvallis***, Corvallis Planning Division, City of Corvallis, Oregon, 1989.
- ***"Land-use and Economic Development," Oregon's Challenge: Better Times Through Economic Development, A Guide for Corporate & Community Leaders***, Oregon Business Council, Portland, Oregon, 1987.
- ***Land-Use Planning in Oregon: A No-Nonsense Handbook in Plain English***, Mitch Rohse, Oregon State University Press, Corvallis, Oregon, 1987.
- ***Municipal Visioning: Creating a Strategic Vision for the Future***, Steven C. Ames, (Unpublished Paper), Alberta Vision 2020, Alberta Ministry of Municipal Affairs, Edmonton, Alberta, Canada, 1988.
- ***"Sustainable Portland: What We Need Is a City that Can Carry Us into the Next Century,"*** Steven C. Ames, *Knowing Home: Studies for a Possible Portland*, RAIN Magazine, Portland, Oregon, 1981.
- ***The Visioning Handbook: A Hands-On Guide for Planners & Facilitators in State and Federal Natural Resource Agencies***, Steven C. Ames, Division of Federal Aid, U.S. Fish & Wildlife Service, Arlington, Virginia, 1993.
- ***The Willamette Valley Choices for the Future***, Lawrence Halprin & Associates, Willamette Valley Environmental Protection & Development Planning Council, Salem, Oregon, September, 1972.
- ***The Community Visioning and Strategic Handbook***. National Civic League, 1996. This 53-page handbook explains the community visioning process, both the rational behind it and how to do it. To obtain this resource contact the National Civic League, 1445 Market Street, Suite 300, Denver, CO 80202; Tel: 800.223.6004.
- ***Community Profile Project***. Technical Bulletin prepared by NH Office of Energy and Planning, Revised 2001. The 2001 edition is only available electronically at the NH Office of Energy and Planning webpage. If you would like a printed copy of the previous edition, 1998, contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
- ***Visions for a New American Dream***. Anton C. Nelessen, 2nd Edition, APA Planners Press, 1994. This book outlines a seven-step planning and design process for creating three types of traditional communities – hamlets, villages and neighborhoods. The author first introduces techniques like the Visual Preference Survey that planners can use to involve citizens in the creation of a common community vision. The author then presents 10 design principles that will help translate this vision into design standards for a community's master plan.
- ***The Community of the Future***. Hesselbein, Frances, Marshall Goldsmith, Richard Beckhard, Richard F. Schubert, eds, San Francisco, CA: Jossey-Bass, 1998. This collection of essays explores what is important about our communities today, how they will look tomorrow, and what we can do to prepare for the challenges of the future.
- ***Better Not Bigger: How to Take Control of Urban Growth and Improve Your Community***. Fodor, Eben V., Gabriola Island, BC: New Society Publishers, 1998. This resource provides insights, ideas and tools to empower citizens to

- resist rapid growth and develop a sustainable vision for their community that is an attractive alternative.
- ***Building Vision and Action*** – Video Tape. Prepared by the American Planning Association. Learn how to involve citizens in the visioning process and how to move from vision to action. Geared toward planners in small towns and rural areas. For copy contact: NH Office of Energy and Planning, 57 Regional Drive, Concord, NH 03301. (603) 271-2155 or Planners Book Service (312) 786-6344 or BookService@planning.org.
 - ***Community Visioning***. Video Tape. Prepared by the American Planning Association. Planning agencies and public interest groups can use visioning to involve citizens and leaders in both strategic and comprehensive planning. Review case studies from across the country as panelists explain common visioning techniques. Can be ordered from PAS on-line at: BookService@planning.org.

Citizen Participation

- ***Successful Public Meetings***. Elaine Cogan, 2nd Edition, APA Planners Press, 2000. Use this comprehensive guide to plan and conduct productive meetings that leave nothing to chance. The author identifies the components of a successful meeting, lists crucial tasks, explains how to avoid or overcome disasters, and reveals tactful, but effective, ways to manage difficult participants. True stories of public meetings enliven the narrative, and step-by-step checklists cover every aspect of meetings. This updated edition encompasses e-mail and the Internet.
- ***Meeting of the Minds***. Daniel Iacofano, MIG Communications, 2001. This book will help you craft meetings to advance your goals and become an effective facilitator and resource person. Learn to use body language, facial expressions, and hand movements to enhance your message. Useful for commissioners, zoning board members, and planners who must build consensus through successful group interaction.
- ***Deliberative Practitioner***. John Forester, MIT Press, 2001. Working effectively with diverse groups is challenging. The author draws on accounts of successful planners in both urban and rural settings to show how skillful deliberative practices can facilitate effective participatory planning processes.
- ***Participation Tools for Better Land Use Planning***. Center for Livable Communities, 2nd Edition, 1997. This book shows you how to increase the level and quality of citizen participation in land-use decisions. It highlights techniques such as visioning, neighborhood groups, computer simulation, and design charrettes. Case studies show how to use these techniques to shape plans that reflect citizen's desires and create a solid base for successful planning. Can be ordered on-line at <http://www.mainst.org>.
- ***Building Citizen Involvement***. Mary L. Walsh, International City/County Management Association, 1997.
- ***Community Participation Methods in Design and Planning***. Henry Sanoff, John Wiley & Sons, 2000.
- ***Dealing With An Angry Public***. Lawrence Susskind and Patrick Field, Simon & Schuster, 1996. The author shows you how to overcome resistance to

- public initiatives by using a mutual gains approach, a strategy he has taught in his MIT – Harvard ‘Dealing With an Angry Public’ seminars for years. The mutual gains approach can help you gain public support for your planning initiatives and reduce the time and resources spent defending your decisions to the public. Includes case studies on value conflicts. Can be ordered on-line from PAS at: BookService@planning.org.
- ***Planning Through Consensus Building: A New View of the Comprehensive Planning Ideal***, Judith E. Innes, Journal of the American Planning Association, Vol. 62, No. 4, Autumn, 1996.
 - ***Information in Communicative Planning***, Judith E. Innes, Journal of the American Planning Association, Vol. 64, No. 1, Winter, 1998.
 - ***Consensus Building as Role Playing and Bricolage: Toward a Theory of Collaborative Planning***, Judith E. Innes & David E. Booher, Journal of the American Planning Association, Vol. 65, No. 1, Winter, 1999.
 - ***Consensus Building and Complex Adaptive Systems: A Framework for Evaluating Collaborative Planning***, Judith E. Innes & David E. Booher, Journal of the American Planning Association, Vol. 65, No. 4, Autumn, 1999.
 - ***Citizen Participation Handbook for Public Officials and Other Professionals Serving the Public***. Hans and Anne Marie Bleicker, 9th Edition, 1995. Institute for Participatory Management and Planning, P.O. Box 1937, Monterey, CA, 93942-1937, ipmp@aol.com
 - ***Making Your Meetings More Productive with Less Conflict***. Maro Zagoras, From Land Use Facilitation Training: Western Colorado Planners’ Forum, June 1, 2002 (Contact: Maro Zagoras, 3841 C.R. 214, Silt, CO, 81652, 970-876-5722).
 - ***“Citizen Participation”*** Millennium Communications Group. Communications as Engagement: Millennium Report to the Rockefeller Foundation. This resource can be found on-line at:
 - ***The Facilitator’s Guide to Participatory Decision Making***. Sam Kaner, et. Al., Gabriola Island, BC, Canada: New Society Publishers, 1996. This how-to manual is designed to help groups increase participation and collaboration, honor diversity, and make effective, participatory decisions.
 - ***Youth Participation in Community Planning***. Ramona K. Mullahey. By participating in real community projects instead of classroom simulations, students learn to tackle real world problems and shoulder social responsibility. This report explores how communities have involved children in planning. It can be ordered on-line at: <http://www.planning.org>.
 - ***Conflict Resolution and Strategic Analysis***. Video Tape. Prepared by the American Planning Association. Resolve conflicts in a way that leads to mutual benefit, not winners and losers. Use strategic analysis to influence the outcome of important decisions. Can be ordered from PAS on-line at: BookService@planning.org.
 - ***Electronic Town Meeting***. Video Tape. Prepared by the American Planning Association. This video and workbook, produced jointly with KTCS Television Seattle, shows how to use computers and television and other electronic tools to involve citizens in planning. Can be ordered from PAS on-line at: BookService@planning.org.

- ***Public Anger and Community Decision Making.*** Audio Tape, 1998. Produced by the American Planning Association. Gain insight into public anger and its impact on good decision-making. Learn to handle public meetings and develop an effective project review process. Can be ordered from PAS on-line at: BookService@planning.org.

Land Use

- ***Master Planning.*** Technical Bulletin prepared by NH Office of Energy and Planning, Summer, 2003. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
- ***“Master Plan Primer”*** Colorado Department of Local Affairs. To order this publication contact: Colorado Department of Local Affairs, Division of Local Government, 1313 Sherman Avenue, Room 521, Denver, CO 80203. Tel: 303.866.2156. Published on-line at: <http://www.dig.oem2.state.co.us/fs/mplanpg.htm>.
- ***“Preparing a Comprehensive Plan”*** Maryland Office of Planning. To order printed copy contact: Maryland Office of Planning, 301 West Preston Street, Room 1101, Baltimore, Maryland 21201-2365. Published on-line at: <http://www.op.state.md.us/planning>.
- ***Urban General Plan.*** T.J. Kent, Jr. Kent’s classic book is remarkably pertinent for planners faced with updating comprehensive plans, especially in fast-growing areas. To order on-line at: <http://www.planning.org>.
- ***“Preparation and Implementation of a Comprehensive (Master) Plan.”*** Citizen Planner Training Collaborative. An excellent guide to the basics of preparing a comprehensive plan. It is take home material from their “Comprehensive (Master) Planning” training seminar. To order contact: Citizen Planner Training Collaborative, 406 Goodell, Center for Rural Massachusetts, Department of Landscape Architecture and Regional Planning, the University of Massachusetts, Amherst, MA.
- ***Planning Made Easy.*** National Main Street Center. Planning can seem confusing and bureaucratic to the layperson, but it must be understood in order to affect development for a healthy commercial district. This manual is the best resource we’ve found explaining the process. Teaching in easy to understand terms, it outlines the basics of comprehensive planning, zoning, enabling legislation and the role of planning commissions. It can be ordered on-line at: <http://www.mainst.org>. or by contacting the National Main Street Center, 1785 Massachusetts Avenue, N.W., Washington D.C. 20036. Tel. 202.588.6219.
- ***Urban Land Use Planning.*** Edward J. Kaiser, David R. Godschalk, and Stuart Chapin, Jr., 4th Edition, University of Illinois Press, 1994. This classic text examines the evolution of practices that characterize urban planning today: short-term problem solving, neighborhood planning, and revitalizing inner cities. It also addresses computer technology, negotiation and citizen participation, and evolving governmental contexts for planning.
- ***Guidelines for Preparing Urban Plans.*** Larz T. Anderson, APA Planners Press, 1995. Already a classic, this comprehensive book shows how to prepare, review, adopt, and implement urban plans. It explains how to

- identify public needs and desires, analyze existing problems and opportunities, and augment long-range general plans with short-range district and function plans. Its clear style helps demystify the complex process of preparing urban plans for planning practitioners, planning commissioners, and students.
- ***Comprehensive City Planning.*** Melville C. Branch, APA Planners Press, 1985. The perfect introduction to city planning. It focuses on the development of cities and how they have been planned and managed through the ages. Topics include the roots of city management and planning; physical and socioeconomic views of cities; how city planning works within city government; the ties between planning and city politics; zoning and urban design; and regional planning.
 - ***Practice of Local Government Planning.*** Charles J. Hoch, Linda C. Dalton, and Frank S. So, eds., 3rd Edition, 2000. This edition of the “green book” examines key planning functions from a management perspective. It covers land use, transportation, housing, development, economic development, and urban design. New sections address planning analysis of population, the economy, and the environment; planning in an information age; environmental policy; growth management; and community development.
 - ***Community Planning.*** Eric Damian Kelly and Barbara Becker, Island Press, 2000. This guide will help planners work with communities to develop new comprehensive plans or update existing ones. It combines the best of theory and practice to show how to craft a plan that meets individual community needs. It also evaluates the feasibility of a comprehensive plan; the varying roles of professionals, citizens, and elected officials in crafting the plan; and the plan’s relationship to land-use controls, housing, and economic development. Includes exercises, discussion questions, and suggested readings.
 - ***Tools and Techniques: Bucks County Land Use Plan.*** Bucks County [PA] Planning Commission, 1996. This document, part of the Bucks County Land Use Plan Series, introduces various planning approaches and development regulation methods, stressing the strengths and weaknesses of various options. To obtain this resource contact: Bucks County Planning Commission at 215.345.3400.
 - ***Small Town Planning Handbook.*** Thomas L. Daniels, John W. Keller, and Mark B. Lapping, APA Planners Press, 2nd Edition, 1995. Whether your town’s issue is industrial decline or population growth, this book offers useful advice on how to cope. The practical tools in this popular guide are sensitive to local character and the reality of limited financial and personnel resources. The authors explain how to develop a comprehensive town plan, draft and apply land-use regulations, and craft a capital improvements program. They also investigate new areas such as economic development, small town design, and strategic planning.
 - ***Land Use Plan 2015 for the Southern New Hampshire Planning Commission [SNHPC] Subregion.*** Southern New Hampshire Planning Commission. Manchester, NH. January 1999. This document addresses, on a regional level, issues faced by the SNHPC’s thirteen member communities. It provides an overview of existing factors such as population, economics, housing,

- infrastructure, water supply, transportation, land use, natural resources, and zoning, and proposes attainable goals and objectives.
- ***Planning the Built Environment.*** Larz T. Anderson, APA Planners Press, 2000. An authoritative reference and a practical technical manual that will inform practitioners and students from related professions – planning, architecture, civil and traffic engineering and landscape architecture – on current standards and best practices for managing urban and suburban physical systems. Carefully organized and generously illustrated, it includes definitions from any disciplines. Also includes chapter exercises and hands-on activities.
 - ***Land Development Handbook.*** Sidney O. Dewberry, 2nd Edition, APA, 2002. Land development has wide implications for urban economies. Navigating the land development maze is a challenge for even the well-informed professional. Featuring 700 illustrations, this book contains a thorough description of the design and approval process for residential, commercial, and retail land development projects and valuable bottom-line information on environmental issues. This edition includes changes to federal agency regulations; open space data; information on advances in GPS and GIS technology; new perspectives on urban growth; and case studies, plans, and details.
 - ***Urban Development.*** Lewis D. Hopkins, Island Press, 2001. Planners and planning come under fire as more people realize that planning plays a role in shaping urban and suburban landscapes. Developers, politicians, and citizens increasingly blame “poor planning” for a host of community ills. But, it is often far from clear – even to practicing planners – what plans are supposed to do, how they work, and what problems they can address successfully. Hopkins thoroughly explains the logic and concepts – both well known and obscure – behind making and using plans. This book will enlighten practicing planners.
 - ***New Hampshire Planning and Land Use Regulation.*** 2003-2004 Edition. New Hampshire Office of State Planning, Concord, New Hampshire
 - ***Handbook of Subdivision Review*** 1995 – This handbook is designed to assist New Hampshire’s municipal planning boards with what has become their most time consuming responsibility: review of applications to subdivide parcels of land and incorporates amended procedures through the 1995 legislative session. The handbook contains a glossary of terms that defines key words and phrases as used in the handbook; chapter 1 describes the steps a municipality must take before it may regulate the subdivision of land; chapter 2 describing the procedures for submission and review of subdivision applications; chapter 3 discusses the technical considerations of review involving existing conditions of the site and how it relates to the surrounding area; and lastly a section of appendices containing pertinent statutes, technical information and sources for additional assistance.
 - ***Subdivision and Site Plan Review Handbook*** - Written by the Southwest Region Planning Commission in 1995 (and revised in 2001) – This handbook is intended to serve as a guide for Planning Boards in updating their local subdivision and site plan review regulations. The models represented herein incorporate language based on changes in the state statutes relative to planning board procedure and other land use matters, as well as

recommendations and suggestions on ways to deal with particular issues with which Boards may deal on a regular basis. This document is a companion to the OSP Handbook of Subdivision Review and is recommended as a resource for model subdivision and site plan review regulations and related forms and notices.

- ***Status of Municipal Planning & Land Use Regulations.*** OSP - This is an annual publication of the NH OSP summarizing the status of planning and land use regulations for each municipality in the state by planning region.
- ***Back to Basics for Planning Boards.*** A video prepared by OSP which provides an introduction to the basic duties of the planning board covering the master plan, capital improvements program and growth management along with land use regulations including the zoning ordinance; building code; subdivision; site plan review; earth excavation and driveway regulations; and scenic roads. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
- ***The Community Planning Handbook: How people can shape their cities, towns and villages in any part of the world.*** London, UK: Earthscan Publications, 2000. This book is the starting point for all involved in shaping their environment. It features an accessible how-to-do-it style, best practice information on effective methods, checklists, sample documents, and a scenarios section that demonstrates how the various methods described can be mixed and matched to meet the unique circumstances found in any community. To obtain this resource contact: Earthscan, 120 Pentonville Road, London, N1 9BR, UK; Tel. Littlehampton Book services, +44 (0) 1903 828800; email: orders@lbsltd.co.uk; Website: <http://www.earthscan.co.uk>.
- ***Is Your Community's A Great Place to Live?*** Help shape your community's future by participating in community planning. Define local assets and problems and set goals and strategies to affect the changes you want. Can be ordered at: <http://www.planning.org>.
- ***Strategic Planning in Local Government.*** Roger L. Kemp. This book, the companion to Strategic Planning: Threats and Opportunities for Planners, reports the progress that planners have made in integrating strategic planning into the public sector. Can be ordered on-line at: <http://www.planning.org>.
- ***Strategic Planning Workbook.*** Bryan W. Barry, Saint Paul, MN. Amherst H. Wilder Foundation. This book is a revised edition of a workbook first published in 1986. The goal of the first book was to provide an easy-to-use primer on strategic planning to community groups, nonprofit organizations, coalitions and wider movements. The new edition incorporates changes based on the advice from leaders and consultants in the field. The focus of the book is the five-step process to strategic planning. The process involves getting organized, taking stock, setting direction, adopting the plan, and implementing the plan. Each step in the process is accompanied by worksheets and planning tips. Appendices also supply information on planning with multiple organizations and real-world strategic planning examples. Can be ordered from the Amherst H. Wilder Foundation Publishing Center, 919 Lafond Avenue, Saint Paul, MN 55104; Tel. 1-800-274-6024.

- ***Innovative Controls for Land-Use Regulation.*** Audio Tape, 1996. Prepared by APA. Learn how new types of land-use controls amplify or extend traditional zoning have feared in communities nationwide. Can be ordered on-line from PAS at: BookService@planning.org.

Smart Growth

- ***Smarter Land Use.*** Karl Kehde, LUFNET, 4th Edition, plus CD, 2002. This book will help communities replace traditionally adversarial land development approval methods with collaboration and cooperation. Based on ten years of experience at the local project level, it shows how to make the land development process more productive, less aggravating, and more likely to yield projects that enhance surrounding neighborhoods.
- ***Building Livable Communities: A Policymaker's Guide to Infill Development.*** Nancy Bragado, Judy Corbett, and Sharon Sprowls, Center for Livable Communities, 1995. This report argues that infill development can help communities combat the detrimental effects of sprawl. It shows how infill makes neighborhoods livable by solving a host of problems, including traffic congestion. It also deals with associated zoning, planning, and financing issues.
- ***Cluster Residential Development.*** Technical Bulletin prepared by NH Office of Energy and Planning, Summer, 2003. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
- ***A Handbook on Open Space Development through Residential Clustering.*** Southern New Hampshire Planning Commission, February 2001. This report describes the environmental, social, recreational, and economic benefits of open space subdivisions, discusses site design issues, examines case studies of six such developments in the state, and provides guidelines for writing open space development regulations.
- ***Growing Greener.*** Randall Arendt. This book offers detailed explanations of resource conserving development techniques that make both environmental and economic sense. It can be ordered on-line at: <http://www.planning.org>.
- ***Conservation Design for Subdivision: A Practical Guide to Creating Open Space Networks.*** Arendt, Randall. Natural Lands Trust, American Planning Association and American Society of Landscape Architects. 1996. This soft cover publication is a fully realized effort by the author to respond to requests for "more detailed information describing the actual techniques that are available to landowners, developers, local officials, and conservation organizations who are interested in conserving land through the development process...." Illustrated throughout with examples of conservation subdivision designs on seven different types of rural property.
- ***Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development.*** Robert D. Yaro, Randall G. Arendt, Harry L. Dodson, and Elizabeth A Brabec, 1984. Lincoln Land Institute and the Environmental Law Foundation. This critically acclaimed manual uses striking perspective drawings, plans and photos to explain how a community can use creative planning guidelines to accommodate growth while preserving rural landscapes.

- ***“The Costs of Sprawl – And Alternative Forms of Growth.”*** Downs, Anthony, CTS Transportation Research Conference, Minneapolis, MN, May 19, 1998. Text of speech given by Anthony Downs at the CTS Transportation Research Conference, Minneapolis, May 19, 1998. The speech identifies and discusses ten attributes of sprawl, while identifying alternative growth patterns.
- ***Performance Standards for Growth Management***, American Planning Association, Planners Advisory Service Report #461, 1996
- ***“Preserving Rural Character Through Cluster Development.”*** Susan Corser, PAS Memo, July 1994 – This Memo looks at the potential for cluster development to create the much sought-after balance between human beings and natural processes in rural areas. It is based on research conducted for the Thurston County, Washington, Dept. of Planning, which studied ways that development regulations can most effectively promote cluster projects. The study was based on a review of existing rural cluster ordinances from counties and cities throughout the country; site visits to several rural cluster projects; interviews with planners, realtors, and developers; and a review of existing literature. A copy of this report is available for review at the NH Office of Energy and Planning, 57 Regional Drive, Concord, NH during regular business hours: Monday – Friday 8:00 am to 4:30 pm. You may obtain this report from: Planner’s Book Service, 122 S. Michigan Ave. Suite 1600 Chicago, IL 60603-6107. Phone: (312) 786-6344, Fax: (312) 431-9985. Bookorder@planning.org.
- ***Rural by Design: Maintaining Small Town Character***. Randall Arendt, Chicago, IL. American Planning Association. Planners Press. 1994. A comprehensive, illustrated discussion of “the common qualities of traditional towns,” how zoning and development patterns have changed those characteristics over the years, and design techniques that can be implemented to reclaim or retain desired community features.
- ***The Practice of Sustainable Development***. Douglas R. Porter (Principal Author and Editor). Urban Land Institute. Washington, DC. 2000. The authors of this book share the belief that the existing pattern of sprawl development is no longer economically feasible, and has never been ecologically or aesthetically desirable. Pragmatic and insightful, this book “describes applications of sustainable development that are both workable and financially feasible in today’s markets and communities.” Specific examples and design solutions are presented in detail.
- ***The Land Book – The Challenge of Making Wise Community Development Decisions – A Practical Guide for the Layman***. State of New Hampshire, Office of the Governor. Concord, NH. April 1976. This guide to land planning takes the reader step-by-step through the process, from inventory and analysis through formulation and implementation.
- ***Alternatives to Sprawl***. Dwight Young. Report published by the Lincoln Institute of Land Policy on conference sponsored by the Lincoln Institute, The Brookings Institution and the National Trust for Historic Preservation held in Washington, DC in March 1995. The causes, economic costs, and health effects of sprawl are addressed in this conference report along with cogent ideas on how to create and encourage alternatives to this mostly unwelcome phenomenon.

- ***Report to Governor Shaheen on Sprawl.*** New Hampshire Office of State Planning. December 1999. On February 4, 1999, New Hampshire Governor Jeanne Shaheen issued Executive Order 99-2, a proclamation “directing state agencies both to recognize the importance of preserving New Hampshire’s traditional communities and landscapes, and to evaluate actions they either are taking or might be taking to further that goal.” The Office of State Planning has addressed that issue in this document by identifying the current actions, programs and policies of each state agency as they relate to six categories that affect sprawl, and making specific recommendations for future improvements.
- ***Smart Growth – Economy, Community, Environment.*** The Urban Land Institute. 1998. “[L]ooks at various aspects of smart growth, including transportation planning, housing density, state growth policies, regional growth policies, and center city redevelopment strategies.”
- ***A Handbook on Sprawl and Smart Growth Choices for Southern New Hampshire Communities.*** Prepared by the Southern New Hampshire Planning Commission. August 2002. A report on the impacts of sprawl, “smart growth” regulations that are working, and examples of how sensible growth concepts have been used to advantage in New Hampshire.
- ***Growing Smarter – Best Site Planning for Residential, Commercial and Industrial Development.*** A “Way to Grow!” publication from the Vermont Forum on Sprawl. March 2001. A handbook aimed at providing “communities, developers, nonprofit groups and others interested in smart growth with a set of best development practices. ...for residential, commercial and industrial development [and] best development processes ...for addressing common barriers to smart growth.”
- ***Managing Growth in New Hampshire: Changes & Challenges.*** The New Hampshire General Court (House Bill 207, Chapter 19, Laws of 1999) directed the Office of State Planning to study how growth trends are affecting land development patterns in New Hampshire. OSP formed a 27-member Growth Management Committee in August 1999 to help examine the effects of sprawl development in the state, and advised the Legislature on managing growth. The Committee included individuals with a wide range of expertise and experience, including law, architecture, natural resources, real estate development, retail operations, municipal planning, historic preservation, economic development and transportation. This report offers a series of recommendations to strengthen the ability of state and local governments and regional organizations to cope with the challenges of future growth. Detailed analysis of statewide growth indicators, municipal case studies, and a review of how other states are addressing similar concerns support the recommendations.
- ***Open Space for New Hampshire – A Toolbook of Techniques for the New Millennium.*** Dorothy Tripp Taylor. New Hampshire Wildlife Trust. 2000. New Hampshire Wildlife Federation; 54 Portsmouth Street; Concord, NH 03301. Tel (603) 224-5953; Fax (603) 228-0423. nhwf@aol.com. <http://www.nhwf.org>. “This manual is part of the New Hampshire Wildlife Federation’s Community Conservation Project ...designed to increase protection of wildlife habitat in New Hampshire by helping towns understand and act upon the value of open space in their communities.” It

- explains the economic, ecologic and social benefits of open space preservation, and provides techniques to achieve, manage and sustain community goals. An extensive contact list of relevant organizations is provided.
- ***Does Open Space Pay?*** Philip A. Auger, UNH Cooperative Extension, Natural Resource Network. Durham, NH. 1995. “The cost of community services (COCS) process was used to compare residential, commercial, industrial and open- space land use categories” in each of four New Hampshire communities. The ratio of revenues to expenditures was calculated to determine the answer to the question posed by the title. The answer is “Yes.”
 - ***Getting to Smart Growth: 100 Policies for Implementation.*** International City/County Management Association and Smart Growth Network. Contact: <http://smartgrowth.org>.
 - ***Getting to Smart Growth II: 100 More Policies for Implementation.*** International City/County Management Association and Smart Growth Network. Contact: <http://smartgrowth.org>.
 - ***Growing Smart – Legislative Guidebook – Model Statutes for Planning and the Management of Change.*** 2002 Ed. Vols 1 & 2. American Planning Association. January 2002. According to this document, it is time to update planning enabling legislation so that local governments can have the tools they need to cooperate in the solution of problems that exceed the province of their own jurisdictions. This voluminous text contains fifteen detailed chapters on how such reform legislation may be initiated, what it should include, and how it might be financed, implemented and enforced.
 - ***Smart Growth Audits.*** Jerry Weitz and Leora Susan Waldner, APA PAS #512, 2003. The authors look at how a local government can examine the “genetic codes” of its planning – the regulations and plans that govern development – to answer whether those codes are programmed to facilitate sprawl or smart growth. This report describes the concept of a smart growth audit and provides methods to implement one in your community. Examples from various states are included, but the focus is on how to do an audit at the local level, using case studies of audits in Charlotte-Mecklenburg County and Durham, North Carolina, and Brookings, Oregon. A range of possible audits is described. To order on-line contact PAS at: Subscriptions@planning.org.
 - ***Community Growth Management.*** A video prepared by OSP. This video explains the implementation process for growth management regulations and the relationships among the master plan, capital improvements program, land use regulations and ordinances and land and easement acquisitions. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
 - ***Achieving Smart Growth in New Hampshire.*** A CD-ROM prepared by OSP in October, 2003. This project documents how New Hampshire is changing and highlights some positive examples of development and conservation throughout the state. The contents of the report are available on the NH OEP website and new examples and information are posted there periodically.

- ***A Planners Guide to Sustainable Development.*** Kevin Krizek, Planning Advisory Service Report Number 467, Chicago, IL: American Planning Association, 1998. This report serves to describe sustainable development, overview global progress, propose strategy for local initiatives, and serve as a reference to more specific reviews of this topic. To obtain this resource contact the American Planning Association, 122 S. Michigan Avenue, Suite 1600, Chicago, IL 60603; Tel: 312.431.9100; Fax: 312.431.9985.
- ***The Sustainability Plan for the City of San Francisco.*** City of San Francisco Commission on the Environment, San Francisco, CA: 1997. This comprehensive outline of a visionary sustainability program passed by the City of San Francisco states general goals, objectives for the year 2002, and specific actions for the city to address in order to develop an economically, socially, and environmentally healthy city. Although the plan was drafted specifically for San Francisco, it contains a wealth of ideas that could be applied to virtually any community seeking to achieve a more sustainable future. To obtain this resource contact the Commission on the Environment, City and County of San Francisco, 1540 Market Street, Suite 160, San Francisco, CA 94102; Tel: 415.554.6390; Fax: 415.554.6393. This resource can be found online at: <http://www.sustainable-city.org>
- ***Smart Growth for Tennessee Towns and Counties: A Process Guide.*** English, Mary R., Jean H. Peretz and Melissa J. Manderschied, Knoxville, TN: University of Tennessee, 1999. This guide summarizes the basic steps in a smart growth visioning and planning process and includes two case studies and an extensive list of resources. To obtain this resource contact the Energy, Environment and Resources Center, 311 Conference Center Building, University of Tennessee, Knoxville, TN 37996-4134; Tel: 423.974.4251; Fax: 423.974.1838; Email: menglish@utk.edu. This resource can be found online at: <http://eerc.ra.utk.edu/smart.htm>.
- ***The Local Agenda 21 Planning Guide: An Introduction to Sustainable Development Planning.*** International Council for Local Environmental Initiatives (ICLEI), Toronto, Canada: International Council for Local Environmental Initiatives, 1996. The Local Agenda 21 Planning Guide has been prepared to assist local governments and their local partners to learn and undertake the challenging task of sustainable development planning. The Guide offers tested and practical advice on how local governments can implement the United Nation's Agenda 21 action plan for sustainable development. To obtain this resource contact ICLEI, PO Box 8500, Ottawa, M5H 2N2, Canada, Tel: 416.392.1462.
- ***Building A Sustainable Community: An Organizer's Handbook.*** Action Coalition for Global Change, California: Action Coalition for Global Change. This handbook can be used as a primer to educate people on sustainability or as a guide to create a full sustainable community project. To obtain this resource contact ACGC at: 415.341.1126.
- ***Sustainable Communities: From Vision to Action.*** Hempel, Lamont C., Claremont, CA: Claremont Graduate University, 1998. This booklet addresses the role of healthy communities in restoring social and ecological balance in our individual lives and in our collective search for enduring forms of justice, prosperity, security, and environmental quality. It is about a vision of sustainability and its application to community. To obtain this resource

- contact the School of Politics and Economics, Claremont Graduate University, Claremont, CA 91711-6163.
- ***Community Sustainability Survey: Is Your Community Becoming More -- Or Less -- Sustainable?***. Hempel, Marilyn, Claremont, CA: League of Women Voters Population Coalition, 1996. To obtain this resource contact the LWV Population Coalition, 1476 N. Indian Hill Boulevard, Claremont, CA 91711.
 - ***"Coming to Terms with Sustainability"***. Hren, Benedict J. and Nick Bartholomew, *Environments for Life Conservation Issues Forum Series*. Isaac Walton League of America, March 1997. The Isaac Walton League of America created this conservation issues guide to help people organize and conduct a discussion about sustainability.
 - ***Sustainable Community Development: Principles and Concepts***. Maser, Chris., Delray, FL: St. Lucie Press, September 1996. This publication describes sustainable community development as a community-directed process of development that is based on human values, active learning, shared communication and cooperation, within a fluid system, void of quick fixes .
 - ***Staying Inside the Lines: Urban Growth Boundaries***. Gail V. Easley, APA PAS #440, 1992. Urban growth boundaries can be used to meet state and local growth goals. They help concentrate new development in mapped areas to ensure efficient delivery of urban services, preserve open land and farmland, and prevent the costly and detrimental effects of urban sprawl. The report defines types of urban growth areas, discusses criteria for mapping boundaries for these areas, and tells how to make them work. Includes four case studies. Can be ordered at PAS at Subscriptions@planning.org.
 - ***Cost of Sprawl***. Video Tape, 1996. Published by the American Planning Association. Explore residential and commercial development within and beyond city limits. See how sprawl affects transportation, financial resources, land use, social equity, and the overall quality of life. Obtain this resource on-line from PAS at: BookService@planning.org.
 - ***Livable Communities and Sustainable Development***. Audio Tape, 1999. Prepared by APA. Discover how livability and sustainability can be effectively integrated into community planning. Can be ordered on-line from PAS at: BookService@planning.org.

Transportation

- ***Traffic Sheds, Rural Highway Capacity, and Growth Management***. Lane Kendig, PAS 485, 1999. Kendig explains a manageable, market-based technique to control sprawl in rural areas. Like watersheds, traffic on rural road systems flows to the closest major retail arterial. When capacity is limited, there are two ways to avoid congestion – build new infrastructure or limit density. Planners can use traffic sheds analysis to set performance-based zoning regulations that match development with infrastructure.
- ***Residential Streets***. Walter M. Kulash, Urban Land Institute, 3rd Edition, 2001. Kulash describes innovative tools for making residential streets more

- pedestrian – and cyclist-friendly. He covers conventional street design issues – hierarchies, curbs, drainage, intersections, and pavements – and advises how to reduce street widths and reintroduce traditional street grids to meet smart growth and new urbanist objectives. He also covers safety issues, like turnaround clearance and emergency vehicle access.
- ***Great Streets***. Allan B. Jacobs, MIT Press, 1993. “Great Streets don’t just happen,” states the author of this lavishly illustrated book. Streets moderate the form, structure, and comfort of communities. Jacobs describes great streets – with plans, cross sections, dimensions, details, and urban contexts – and deduces what it takes to make them. He mixes hard data, illustrations, and personal experiences to create a highly readable work.
 - ***Streets and Sidewalks, People and Cars***. Dan Burden, Local Government Commission, 2000. This workbook will help citizens apply traffic calming techniques to neighborhood streets. It covers how to evaluate streets, define safety problems, and select techniques to solve them.
 - ***Street Design Guidelines for Healthy Neighborhoods***. Dan Burden, Center of Livable Communities, 1999. This practical manual is full of suggestions to modify standards to make streets safer and more attractive. It addresses speeding, width, and other problems with conventional street design. Includes new standards for block lengths and widths, streetscape and landscape, and fire safety and snow removal techniques.
 - ***Transportation & Land Use Innovations***. Reid Ewing, APA Planners Press, 1997. Extensively illustrated with easy-to-understand graphs, charts, drawings, and other visual aids, this handbook demonstrates how manageable, affordable, and incremental changes can shrink vehicle miles and vehicle hours traveled. It shows how to implement complementary short and long-term strategies tailored to your community’s travel environment. Ewing demonstrates how proactive land planning with an eye to mitigating the demand for auto travel, is the key element in a successful long-term approach.
 - ***Transportation Planning Handbook***. John D. Edwards, Jr. 2nd Edition, Institute of Transportation Engineers, 1999. A transportation planning reference that highlights basic day-to-day guidelines and proven techniques. This edition expands its coverage of all modes of transportation as well as emerging new technologies that affect transportation. In addition to subjects previously covered and expanded here, this edition has new chapters on goods movements, transportation models, traffic calming, and bicycle and pedestrian facilities.
 - ***Transportation Demand Management***. Eric Ferguson, PAS 477, 1998. Overburdened transportation systems have a dramatic effect on economic development, the environment, and quality of life. Transportation demand management (TDM) is another tool to reduce the negative impacts of development, most particularly congestion and air pollution, while still encouraging development. This report examines TDM policies and programs and explains the elements needed to make TDM work.
 - ***Traffic Impact Analysis***. Froda Greenberg and Jim Hecimovich, PAS 387, 1984. Traffic impact analysis determines if existing roads will accommodate the traffic that will result from a proposed development. This report shows you how to do traffic impact analysis; what information to collect; how to

- calculate the number of trips a development will generate; how to figure the “directional distribution” of trips; how to estimate changes in vehicle trip volumes; how to use capacity analysis to judge whether intersections or traffic controls must be changed; and how to use critical land analysis to spot potential congestion and conflicts caused by driveways and signals.
- ***Transportation/Land Use Connection.*** Terry Moore and Paul Thorsnes. PAS 448/449, 1994. Building better highways doesn’t control congestion. This report concludes that integrating land use and transportation regionally is the best help for congestion and a host of other urban ills. It advocates policies to increase and improve infrastructure that serves pedestrians, bicyclists, and high-occupancy vehicles. It looks at ways to measure the interactions between land use and transportation and makes recommendations for change.
 - ***Bicycle Facility Planning.*** Suzan A. Pinsof and Terri Muser. PAS 459, 1995. Bicycling is becoming more popular for recreation and commuting, but most communities don’t have the resources to develop a special system of bicycle paths and facilities. This report proposes a practical alternative – making existing infrastructure safe for bicyclists. Drawing on their work on Kansas City’s acclaimed bicycle transportation plan, the authors outline six key elements for success. Learn how to remove hazards to bicycle travel, calm traffic, widen roadways, designate bicycle lanes, and provide bicycle parking.
 - ***Transportation Corridor Management.*** Daniel Carlson and Don Billen, Institute for Public Policy and Management, 1996. Transportation corridors are the most manageable places to actually connect land use with transportation decisions. This book looks at corridor types and transportation modes that offer alternatives to sprawl and auto-oriented development. It clarifies the interaction between car, highway, and the natural environment that defines a corridor; the relationship of transportation infrastructure to more compact and sustainable urban forms; and the ways we have institutionally separated transportation infrastructure development from land stewardship.
 - ***Traffic Calming: State of the Practice.*** Reid Ewing, Institute of Transportation Engineers, 1999. There is much planners can learn from communities that have instituted speed bumps and other traffic calming measures to slow down automobiles. This report evaluates the effectiveness of a host of traffic-calming techniques employed on residential streets and major thoroughfares throughout the U.S. and abroad. It also addresses legal and public policy issues related to traffic calming.
 - ***Transportation Impact Fees and Excise Taxes.*** Connie B. Cooper, PAS 493, 2000. This report examines the legal foundations for impact fees and reports the results of a survey of 16 jurisdictions describing the impact fees and excise taxes they use to help fund transportation infrastructure. It examines administration, eligibility criteria, service areas, calculation methodologies, reductions and exemptions in fees, developer participation, credits, legal challenges, and more.
 - ***Planning for Street Connectivity.*** Susan Handy, Robert G. Patterson, and Kent Butler, APA PAS # 515, 2003. The purpose of a street network is to connect spatially separated places and to enable movement from one place to another. With few exceptions, a local street connects every place in the

- community. This report provides an overview of efforts by communities across the U.S. to increase street connectivity. It is aimed at communities that are struggling with this goal. Can be ordered from PAS on-line at: Subscriptions@planning.org.
- ***“Municipal Highways, Streets and Roads,”*** Peter J. Loughlin, Municipal Law Lecture Series, Fall 1992.
 - ***Modern Roundabouts*** – This website serves as one of the definitive sources on Modern Roundabouts and is a complement to the Federal Highway Administration’s research project aimed at developing a comprehensive guide to roundabouts design. The results of this project are contained in the book published by FHWA in August 2000; Roundabouts: An Informational Guide. <http://roundabout.kittelson.com>.
 - ***Traffic Calming Guide*** – United States Department of Transportation Federal Highway Administration – Traffic Calming Guide – This website is dedicated to all the known and/or electronically publicized transportation programs and studies that pertain to traffic calming. This web site provides: the general objectives of traffic calming, traffic calming measures, links to traffic calming programs, direct links to other related agencies, a list of related studies, and a list of any upcoming events. <http://www.fhwa.dot.gov/environment/tcalm/>
 - ***A Hard Road to Travel.*** Waugh, Jr., H. Bernard. New Hampshire Municipal Association’s Handbook on New Hampshire Law of Local Highways, Streets and Trails. 1997 Ed. Everything one could possibly need to know about New Hampshire statutes and case law pertaining to foot- and vehicular-travel ways can be found in this excellent reference book. It provides, but is not limited to, information about ownership; trees; acceptance issues; the statutory ‘layout’ process; the state classification system; discontinuance; special categories of layouts and roads; regulation, maintenance and liability; trails; bridges; drainage; utility lines; and sidewalks, parking and ‘other roadside attractions.’
 - ***New Hampshire Statewide Bicycle and Pedestrian Plan.*** New Hampshire Department of Transportation. May 2000. A component of the State’s Long Range Statewide Transportation Plan, this plan was “developed through public input and the recommendations of the Bicycle Pedestrian Transportation Advisory Board.” New Hampshire’s regional planning commissions and metropolitan planning organizations cooperated in this effort. A colored map of the Statewide Bicycle Route System is included as a pocketed insert.
 - ***The Impact of Various Land Use Strategies on Suburban Mobility.*** Prepared by Middlesex Somerset Mercer Regional Council. Federal Transit Administration. Report No. FTA-NJ-08-7001-93-1. December 1992. “...[A] study of the interaction between suburban land use trends and regional traffic conditions. Three different models of high density, mixed-use centers designed to fit in the Middlesex Somerset Mercer Region of New Jersey were developed. The three models examined—transit construct, short drive construct, and walking construct—placed residents’ homes closer to their working and shopping destinations. ...Based on the study it is concluded that concentrating new suburban development into higher density, mixed use centers will slow the growth of regional vehicular use.”

- ***Ten Year Transportation Improvement Program 2003 – 2012.*** Prepared by the New Hampshire Department of Transportation. August 14, 2001. Submitted to the Governor’s Advisory Commission on Intermodal Transportation (GACIT) Pursuant to RSA 228:99 of the Laws of New Hampshire. This document details the NHDOT’s proposed long-term plan for transportation improvement projects in the state, including highways and bridges, rail and transit, aeronautics, bicycle and pedestrian, and park and ride. Information is provided about project categories, funding sources, and the selection process.
- ***Land Use Impacts of Transportation: A Guidebook.*** Transportation Research Board. National Cooperative Highway Research Program. National Research Council Report 423A. Washington, DC. 1999. “This report contains the results of research into the land use implications of transportation investments and decisions. Presented as a guidebook, it provides reference information on land use planning and its integration into the multimodal transportation planning process. The guidebook is intended to improve the practice of land use forecasting and to provide perspectives on the tools and procedures available to practitioners in evaluating the land use impacts of transportation services and improvements.”
- ***New Hampshire Statewide and Subarea Travel Model Plan, Final Report.*** Prepared by Cambridge Systematics, Inc. for New Hampshire Department of Transportation. March 1995. A plan to develop a statewide travel demand model for New Hampshire and subarea models for two major corridors is presented in this document. These models are to be developed as part of the New Hampshire Statewide Planning Study.
- ***Draft Environmental Impact Statement – Volume 1 - Interstate 93 Improvements Salem to Manchester IM-IR-93-1(174)0, 10418-C.*** Prepared for New Hampshire Department of Transportation and Federal Highway Administration. Prepared by VHB/Vanasse Hangen Brustlin, Inc., Bedford, NH. September 2002. A thorough assessment of the impacts, both primary and secondary, that the proposed widening of the I-93 corridor from Salem, NH to Manchester, NH is likely to have on the environment.
- ***Statewide Transportation Improvement Program 2003 to 2005.*** New Hampshire Department of Transportation. November 14, 2002. This is New Hampshire’s official list of transportation improvement projects planned to be constructed during the three-year period. Location, overall project cost, scope of work, phase (preliminary engineering, right-of-way or construction), scheduled year of implementation, cost, and funding category are provided.
- ***Regional Transportation Plan [RTP] and Transportation Improvement Program [TIP] FY 2003-2005 for the Southern New Hampshire Planning Commission [SNHPC] Region.*** Southern New Hampshire Planning Commission. August 2002. This document updates the SNHPC’s original regional transportation plan for the period 1995-2022, and includes a list of transportation projects planned to be implemented during the period 2003-2005. The RTP, prepared in compliance with federal law, addresses all transportation modes that are in use or potentially could play a role within the thirteen municipalities comprising the planning commission region.
- ***Designing Sidewalks and Trails for Access. Best Practices Design Guide.*** Part 2. Sponsored by U.S. Department of Transportation. September 2001. A technical guide aimed at helping planners integrate pedestrian projects into

- the transportation system mainstream. Information is provided on “how to implement the requirements of Title II of the Americans with Disabilities Act (ADA) (1990) and Section 504 of the Rehabilitation Act (1973).” This lengthy, user-friendly document also contains nine appendices with helpful information such as analysis forms, contact information, a lengthy bibliography, etc.
- ***New Hampshire State Rail Plan 2001.*** New Hampshire Department of Transportation, Bureau of Rail and Transit. Prepared by Vanasse Hangen Brustlin, Inc. in association with KKO & Associates, L.L.C. April 2001. “This report is the 2001 update to the New Hampshire Statewide Rail Plan, which was last updated in 1991 and amended in 1993. The Rail Plan presents an overview of the current status of the New Hampshire Rail System, who operates it and how it is utilized. ...Additionally, a process is provided in which potential rail related investment projects can be analyzed to determine if they provide net benefits to the state.”
 - ***The Costs of Sprawl – Revisited.*** TCRP (Transit Cooperative Research Program) Report 39. Sponsored by the Federal Transit Administration Research Board National Research Council. Washington, DC. 1998. This document presents an “analysis of the writings and studies concerning a pattern of land development in the United States termed ‘sprawl.’ It appears that every aspect of this issue, whether negative or positive, has been critiqued in detail by the many distinguished contributors to this report.
 - ***Roads – Guidance on Design, Construction and Approval for Local Planning Boards.*** Technical Bulletin prepared by NH Office of Energy and Planning, 1998. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
 - ***Take BACK Your Streets. How to Protect Communities from Asphalt and Traffic.*** Stephen H. Burrington and Veronica Thiebach. Conservation Law Foundation (CLF), May 1995. Starting with the proposition that many so-called road “improvements” have “done considerable harm to our quality of life,” this document is a guide for those who advocate alternative approaches to planned projects.
 - ***Parking Generation.*** Institute of Transportation Engineers. 2nd Edition, 1987. This comprehensive source of parking occupancy rates for various land uses and building types can you estimate parking needs for 64 different land uses, including commercial airports, industrial parks, high schools, fast-food restaurants, convention hotels, and convenience markets.
 - ***Flexible Parking Standards.*** Thomas P. Smith, PAS #377, 1983. This report examines parking ordinances that offer incentives for shared parking, ridesharing, and historic preservation. It analyzes local studies of parking demand and outlines a process to evaluate local parking standards. Also includes excerpts from zoning codes and a sample residential parking survey.
 - ***Parking Standards.*** Michael Davidson and Fay Dolnick, eds., PAS # 510/511, 2002. This new report, an expanded and updated version of a previous publication, contains not only an exhaustive set of parking standards, but also a section dealing with the complexities of creating practical parking standards.
 - ***Downtown Parking Made Easy.*** Mary Barr, Downtown Research & Development Center, 1997. Parking is one of the most persistent issues

- facing downtowns. Parking system management is a broad strategy to supply just the right number of strategically located spaces, serve both short-and long-term parking needs, price correctly, and operate efficiently. Use this practical handbook to design your own management system.
- ***Parking Handbook for Small Communities.*** John Edwards, National Main Street Center, 1994. Downtowns can not compete commercially without adequate parking. This book explains how to evaluate parking characteristics and determine if parking improvements need to play a role in your downtown revitalization efforts.
 - ***Traffic Calming Library*** – The Traffic Calming Library contains a searchable database of reports, articles and other documents related to traffic calming. In some cases the full publication is available online and in others only a source listing or abstract is available. <http://www.ite.org>
 - ***Traffic Calming Home Page*** – Guide to traffic calming and neighborhood traffic management, including impacts on speeds, traffic volumes and safety. <http://www.trafficcalming.org>.

Community Facilities

- ***Property Taxation and Local Government Finance.*** Wallace E. Oates, Lincoln Institute of Land Policy, 2001. Based on a conference sponsored by the Lincoln Institute, this book reviews the economics of local property taxation and examines critical policy implications. These papers and commentaries offer a wealth of insights into complex issues for policy makers and other non-economists, and suggest ways to reform local government finance. Can be ordered on-line at <http://www.planning.org>.
- ***Local Government Budgeting.*** Gerasimos A. Gianakis and Clifford P. McCue, Praeger, 1999. This book analyzes the political aspects of budgeting, as well as specific techniques like forecasting, benefit-cost analysis, data envelopment analysis, and revenue management. It also addresses capital budgeting, economic development, and debt management. Can be ordered on-line at <http://www.planning.org>.
- ***Capital Facilities Planning.*** Joseph H. Brevard, APA Planners Press, 1985. Can be ordered on-line at: <http://www.planning.org>.
- ***Planning, Growth, and Public Facilities.*** Eric Damian Kelly. This report recommends an integrated system to manage community growth and the expansion of public facilities. Can be ordered on-line at: <http://www.planning.org>.
- ***Development Impact Assessment Handbook.*** Robert W. Burchell, et.al., The Urban Land Institute, 1994. With Development Impact Assessment Model. The electronic model uses a combination of user provided inputs, national multipliers, and model calculations to evaluate the impacts of a new development. Impacts considered include: market, social, environmental, economic, fiscal, traffic, and shared infrastructure. The handbook explains

- development impact analyses in general, provides examples, and gives instructions on how to use the model.
- ***Capital Improvements Programs.*** Robert A. Bowyer, APA PAS # 442, 1993. The Capital Improvements Program (CIP) is much more than a schedule of expenditures. The CIP also responds to policy issues, choices, and political pressures. This report goes beyond how to develop a CIP. It also links budgeting and planning with political and human dynamics.
 - ***Capital Improvements Programming Handbook.*** SNHPC, February 1994 – This handbook is a guide to the preparation of capital improvement programs for local planning boards and towns in New Hampshire. This is intended as a “self-help” manual, primarily for planning boards of smaller communities, who want to prepare a capital improvements program which meets New Hampshire statutory requirements and which is consistent with generally accepted planning practice. This handbook addresses their need for organizational framework and sample forms to expedite the process by which volunteer boards and committees can prepare a capital improvements program tailored to unique local needs.
 - ***Practitioner’s Guide to Development Impact Fees.*** James C. Nicholas, Arthur C. Nelson and Julian C. Juergensmeyer, APA Planners Press, 1991. This book defines the standard for implementing impact fees. It shows how to create, implement, and administer successful fee systems. It explains how to develop an impact fee policy and calculate fees that gain acceptance of the courts and cooperation of developers. It also advises on how to collect, adopt and enforce fees. Includes model ordinances.
 - ***Impact Fee Development A Handbook for New Hampshire Communities.*** SNHPC (revised edition) July 1999 – The purpose of this handbook is to provide communities with guidance for the development of impact fee assessment provisions, following the guidelines and principals established by RSA 674:21, V. This handbook illustrates a process of impact fee development which the authors believe represents a one-time, up-front charge on new development to pay for future public capital costs serving new development, or to recover past expenditures in capacity to accommodate that development. This handbook discusses principles, methods and data sources that may be applied in estimating the demands placed on various capital facilities by new development, and provides examples of impact fee systems.
 - ***“Impact Fees for Schools.”*** Michelle Gregory, PAS Memo, December 1993 – This article discusses general criteria for drafting ordinances, gathering data and establishing the need for schools, determining fee amounts, siting and maps, refunds, and dedicating land from the developer for schools. A copy of this report is available for review at the NH Office of State Planning, 21/2 Beacon Street, Concord, NH during regular business hours: Monday – Friday 8:00 am to 4:30 pm. You may obtain this report from: Planner’s Book Service, 122 S. Michigan Ave. Suite 1600 Chicago, IL 60603-6107. Phone: (312) 786-6344, Fax: (312) 431-9985. Bookorder@planning.org.
 - ***Transportation Impact Fees and Excise Taxes.*** Connie B. Cooper, APA PAS #493. 2000. This report is a valuable tool for planners who are considering how to finance transportation projects in their communities. The author examines the legal foundations for impact fees and reports the results of a

- survey of 16 jurisdictions, describing the impact fees and excise taxes they use to help fund transportation infrastructure. Specifically, the survey examined administration, eligibility criteria, service areas, calculation methodologies, reductions in and exemption from fees, legal challenges, and more. Contact information is provided for each community. To obtain copy contact: Planners Advisory Service at Subscriptions@planning.org.
- ***Solid Waste Management.*** Robert Gottlieb et.al., APA PAS #424/425, 1990. This report looks at how much solid waste the country generates and evaluates the technologies that are available to deal with the problem. It reviews programs to reduce, recycle, and reuse waste and also looks at state and local legislation mandating such programs. Case studies show how local waste management plans have succeeded in helping communities cut the waste they generate and throw out. Can be ordered at PAS at: Subscriptions@planning.org.

Housing

- ***Assessing Local Housing Needs: A Guide for Rural Communities.*** Housing Assistance Council, 1992. Explains how community groups can obtain and use Census data to identify housing needs, and can organize a local housing survey. Can be obtained from Housing Assistance Council, 1025 Vermont Avenue, N.W., Suite 606, Washington D.C. 20005. Also contact: hac@ruralhome.org.
- ***A Guide to Federal Housing and Community Development Programs for Small Towns and Rural Areas.*** One of HAC's most popular publications. Provides brief descriptions of the uses of program funds and eligibility requirements for federal housing and development programs administered by USDA's Rural Housing Service (RHS), the Department of Housing and Urban Development, and others. Can be obtained by contacting: Housing Assistance Council at: hac@ruralhome.org.
- ***The Impact of Federal Housing Changes on New England.*** May, 1998. This study analyzes changes to the major federal housing programs, gauges their impacts on low income residents and housing providers, and provides the most updated statistical information on regional housing needs. Key housing programs analyzed include; public housing, section 8 tenant-based rental assistance, housing for people with disabilities, low income housing tax credits, project-based Section 8, rental housing, homelessness assistance, housing for the elderly, CDBG and the HOME Program and expiring use developments. To order call CHAPA at (617) 742-0820.
- ***The State of the Nation's Housing.*** The Joint Center for Housing Studies of Harvard University has released its annual report, the State of the Nation's Housing: 1999. The report shows how the lowest mortgage interest rates and unemployment rates since the 1960s lead to another record-setting year for homeownership rates, home sales and the value of residential construction in 1998. This report is available on-line at the Joint Center for Housing Studies website or you get a copy by calling 617.495.7908.

- ***Affordable Housing.*** Mark S. White, PAS 441, 1992. Housing affordability is a major issue for local governments. This report offers strategies that housing officials and planners can use to close the gap between housing costs and income. It shows how a balanced regulatory program can stimulate production of affordable housing instead of impeding it. It examines cost-cutting regulatory measures such as land-use controls, zoning reform, impact fees, and development exactions.
- ***Density By Design.*** Steven Fader, Urban Land Institute, 2000. Drawn from both urban and suburban areas, this beautifully illustrated book showcases housing that provides a sense of place, uses land wisely, and satisfies marketplace demand. Project types include single-family detached housing, townhouses, housing for seniors, multifamily housing, high-rise apartments, mixed-income housing, and urban infill developments. Includes photos, drawings, site plans, and floor plans.
- ***Developing Active Adult Retirement Communities.*** Diane R. Suchman et al, Urban Land Institute, 2001. Fueled by the economics but aging baby boom generation, active adult retirement communities are poised to be the “next big thing.” This book explains the basics of the adult housing business and describes best practices and recent advances. It outlines the various types of projects; investigates the all-important “lifestyle” concept that motivates sales; and describes state-of-the art practices in development techniques, planning and design, and legal framework. Ten case studies showcase different product types, locations, target markets, and price ranges.
- ***Community-Based Housing for the Elderly.*** Patricia Baron Pollak and Alice Nudelman Gorman, PAS 420, 1989. This report offers zoning language to encourage aging-in-place. It covers accessory apartments, elder cottages, and shared-living residences. It also looks at the legal principles involved – such as regulating land users rather than land uses and restrictive definitions of family. Strategies are low-cost and flexible, relying on family, charitable groups, and the elderly themselves.
- ***Manufactured Housing.*** Many communities have revised their zoning and design and design regulations affecting manufactured housing to provide an affordable, structurally sound housing alternative that conforms with local aesthetic standards. Design and construction innovations have made it possible to suit a variety of community needs and maintain affordability. This report is based on a survey of PAS subscribers and case studies of exemplary manufactured housing developments, including the redesign of one older mobile home park. Case studies are illustrated in color, offering views of individual units, streetscapes, and site plans. Sample regulations augment the report.
- ***Current Estimates and Trends in New Hampshire’s Housing Supply*** (for the current report, please visit the NH State Data Center website and click on “Housing Data”) – The Office of State Planning has been issuing this series of reports since the mid 1970’s. The reports attempt to present data that show short and long term trends in housing construction and total housing supply. The report series present data about New Hampshire’s housing supply from two very different sources, the decennial census and municipal building permits.

- ***SNHPC Housing Needs Assessment Report*** – 2000. Copies are available on-line at the SNHPC website.
- ***The Directory of Assisted Housing*** (for the current report, please visit the NH Housing Finance Authority website and click on “Publications”) – This Directory is published on a regular basis by the NH Housing Finance Authority to provide consumers, housing interest groups, and others with a guide to rent assisted housing facilities throughout the State. The publication is organized by county and community, and lists the housing developments which are currently subsidized with funding from either the U.S. Department of Housing and Urban Development (HUD), Rural Development (formerly Farmers Home Administration – FmHA), or New Hampshire Housing Finance Authority (NHHFA) through permanent financing or rental assistance payment mechanisms. This directory lists the total number of units in the project and the number of units specifically targeted to very low or low income households either through rent subsidies or income and rent restrictions. In addition, it lists the administering agency, the program through which the project was funded or created and rental subsidy programs associated with each development. This directory does not include information on the Section 8 Existing Housing Program, which provides rental assistance to individual households through the rental vouchers and certificates.
- ***Affordable Housing Design Advisor*** – The Affordable Housing Design Advisor brings together experience and ideas from successful affordable housing projects all over the country, and the people who developed, designed and built them. <http://www.designadvisor.org/home.html>
- ***Mount Laurel II – Challenge and Delivery of Low-Cost Housing***. Burchell, Robert W. et al. Rutgers - The State University of New Jersey. Center for Urban Policy Research. 1983. This document deals with “the issue of how local land-use regulations affect the production and location of housing for low- and moderate-income families.” It begins with a national perspective, then focuses on “the evolution of the courts’ scrutiny of local land-use controls, culminating in the landmark 1983 New Jersey decision, Southern Burlington County NAACP v. The Township of Mount Laurel (commonly referred to as Mount Laurel II)”, which is analyzed in e detail. It ends with an introduction to the “fair share concept,” i.e., a strategy to allocate lower-cost housing units equitably throughout a given metropolitan area.
- ***Feeling the Pinch – Wages and Housing in New Hampshire***. Blair, Sam. The New Hampshire Housing Forum, American Friends Service Committee Project, funded by New Hampshire Community Development Finance Authority and Provident National Bank. 2000. This document addresses the effects that New Hampshire’s good economic performance for the preceding eight-year period has had on the state’s housing supply and its cost—out of reach for much of the workforce. “Failure to address these problems could have serious implications for our state’s continued economic growth.”

- ***Housing Needs Assessment for the SNHPC Region.*** Southern New Hampshire Planning Commission. Manchester, NH. January 2000. As mandated by NHRSA 36:47,III, this assessment of the regional need for housing for persons and families of all levels of income is updated every five years. Appropriate data and relevant factors such the availability of assistance programs are presented and analyzed. The SNHPC fair share allocation model, which estimates the size and distribution by municipality of the need for affordable housing in the region is included.
- ***Producing Affordable Housing, Partnerships for Profit.*** National Association of Home Builders. Washington, DC. Home Builders Press. 1999. This document starts with the premise that producing affordable housing “is both a challenge and an opportunity for home builders across the country.” ...[L]ocal partnerships with governments, financial institutions, and the nonprofit sector combine the production capabilities of builders with the financing and other resources needed to make homeownership a reality for more families.” This book guides the reader through the process and cites case studies.
- ***Current Estimates and Trends in New Hampshire’s Housing Supply – Update: 2000.*** Prepared by the New Hampshire Office of State Planning. November 2001. This report “attempts to present data that show short and long term trends in housing construction and total housing supply. The report series present data about New Hampshire’s housing supply from two very different sources, the decennial census and municipal building permits.
- ***Rebuilding Community in America: Housing for Ecological Living, Personal Empowerment, and the New Extended Family.*** Ken Norwood and Kathleen Smith. (Berkeley, CA: Shared Living Resource Center, 1995). This book is about new patterns in innovative home design, more cooperative relationships, energy and materials-conserving lifestyles, and stronger mutual support. To obtain this resource contact Shared Living Resource Center, 2337 Parker Street, Suite 9, Berkeley, CA 94704-2841; Tel: 510.548.6608; Fax: 510.841.5731, Email: slrcnorwood@igc.org.
- ***Community Development Block Grant Home Page*** – The primary purpose of the Community Development Block Grant program is the development of viable urban communities, by providing decent housing, principally for persons of low and moderate income. It is sponsored by the U.S. Dept. of Housing & Urban Development (HUD) and administered through the NH Office of State Planning (OSP). Website: <http://webster.state.nh.us/osp/cdbg>.
- ***Affordable Housing.*** Audio Tape, 2000. Prepared by APA. Learn what contributes to the high cost of housing and find out how to provide housing choices in your community. Can be ordered on-line from PAS at: BookService@planning.org.
- ***Teardowns, Monster Homes, and Appropriate Infill.*** Audio Tape, 2001. Prepared by APA. Building booms create special challenges for communities seeking to preserve character. Learn how to accommodate change that is respectful of its context. Can be ordered on-line from PAS at: BookService@planning.org.

Economic Development

- ***Understanding Your Economy.*** Mary L. McLean and Kenneth P. Voytek, APA Planners Press, 1992. Communities can attract a competitive edge by strengthening clusters of related and supporting industries – not courting individual firms. How will your community know which clusters to strengthen? This book shows you how to conduct a local economic analysis to support such strategic planning decisions. You'll learn how to analyze changes in the local economy and evaluate the significance of these changes for economic development policy.
- ***Planning Local Economic Development.*** Edward J. Blakely and Ted K. Bradshaw, 3rd Edition, 2002. This book has been a cornerstone of planning practice and education for more than a decade. It explores theories of local economic development and addresses the dilemmas contemporary communities face. The authors investigate planning processes, analytical techniques, business and human resource development, and high-technology economic development strategies. New to this edition are case studies, illustrations, and exercises on how theory can be employed in a real world setting.
- ***Shaping Contemporary Suburbia.*** Joseph P. Schwieterman and Martin E. Toth, Index Publishing, 2001. This review of initiatives and ordinances examines the strategies used by some 75 municipal governments to manage economic development. The book details the efforts of local governments to improve the attractiveness of retail strips, the operation of home-based businesses, the quality of day-care centers, the appearance of signs and billboards, and the sustainability of development. A valuable resource for planners and members of planning and zoning boards.
- ***Asset-Building and Community Development.*** Gary Paul Green and Anna Haines, Sage Publications, 2002. Skepticism abounds about community-based efforts to overcome social and economic problems, despite numerous examples of local residents helping to provide affordable housing, job training, and business financing. This book is an engaging, thought-provoking, and interdisciplinary overview of the community development movement in the U.S. and abroad. Using an asset-based approach that considers human, physical, social, financial, and environmental capital, the authors skillfully demonstrate how local organizations, not government programs or market strategies, are most able to meet important community needs.
- ***Local Economic Development.*** John P. Blair, Sage Publication, 1995. Blair discusses economic development practices that have succeeded in metropolitan and regional areas. He explains basic analytical tools such as shift-share analysis, location quotients, gravity models, cost-benefit analysis, and input-output analysis. A reliable reference for experienced planners and a primer on local economic development for students.
- ***Creating an Economic Development Action Plan.*** Rev. ed. Thomas S. Lyons and Roger E. Hamlin, Praeger, 2001. Economic development means much more than generating jobs. Development professionals must also address how economic development plans fit in the broader view of community

development. This book can help you create a plan with this context. It defines the process and gives the basic information necessary to solve the many problems of economic development.

- ***Transforming Suburban Business Districts.*** Geoffrey Booth et al, Urban Land Institute, 2001. Changing demographics, a hurried population, and traffic congestion are driving the development of suburban business districts. This book describes how blending residential, retail, and office development with transportation options and parking can result in vibrant places that appeal to both the capital markets and the community. Examples demonstrate how to increase property values, competitiveness, and livability in suburban business districts and provide fresh ideas that can be tailored to the needs of your community.
- ***Ten Principles for Reinventing America's Suburban Strips.*** Michael D. Beyard and Michael Pawlukiewicz, Urban Land Institute, 2001. Many once-thriving suburban strip malls now are challenged just to survive. Here is a 10-point action plan to ensure their long-term success. Based on a study by planners and other development experts, suggestions range from crafting traffic patterns that provide convenient access to retail stores to enhancing physical design to attract new and repeat customers.
- ***Niche Strategies for Downtown Revitalization.*** David N. Milder, Downtown Research and Development Center, 1997. Related businesses give any downtown a competitive edge and a focus for successful promotion and recruitment. This book shows you how to identify current or potential downtown niches and built upon them. It suggests innovative and practical ways to market niche programs and recruit and retain businesses that strengthen your niche.
- ***Revitalizing Downtown.*** National Trust for Historic Preservation, 1991. Downtowns suffer as jobs and retail relocate to malls and business parks – businesses close, property values and sales tax revenues drop, and neglected buildings remain. But Main Streets can make a comeback. This book shows how to revitalize downtowns by developing a working plan, improving storefronts, and creating adequate parking. Includes a section on marketing techniques. Can be ordered on-line at: <http://www.mainst.org>.
- ***Tax Increment Financing*** OSP Technical Bulletin #13 (Winter 2001) – This report defines Tax Increment Financing and seeks to provide information on the often confusing topic of the financing of public improvements with the incremental taxes credited
- ***“Fiscal Impact Analysis: Methods and Assumptions”*** Jimmy E. Hicks, 1989.
- ***“Fiscal Impact Analysis: Discussion Materials”*** Bruce C. Mayberry, 1991.
- ***A Fiscal Impact Tool for New Hampshire Communities.*** PC User's Guide. University of New Hampshire Agricultural Experiment Station. Research Report 135. September 1999. “FIT-4-NH is a basic integrated fiscal impact model, derived from community data, to be used for short-run impact analysis at the municipal level by local constituents. ...This document provides the user with a basic understanding of fiscal impact models and the structure of FIT-4-NH, as well as specific operating procedures for conducting simulations with FIT-4-NH.”

- ***Linking Economic Development & Planning*** – Small communities are uniquely challenged to develop economically without damaging their special character. Learn new strategies. NNECAPA Video Library. Video #98-08 Contact: NH Office of Energy and Planning, 57 Regional Drive, NH 03301. (603) 271-2155.
- ***Reinventing the Local Economy: What 10 Canadian Initiatives Can Teach Us About Building Creative, Inclusive & Sustainable Communities.*** Stewart E. Perry and Mike Lewis. This book gives a detailed examination of 10 Canadian initiatives, from Cape Breton to Vancouver, and reflects experience in such sectors as credit unions, labor, co-ops, government, and various community organizations committed to fighting poverty through community economic development. To obtain this resource contact: The CED Bookshop, CCE Publications, PO Box 1161, Port Alberni, B.C. V9Y 7M1, Canada; Tel: 888.255.6779; Fax: 250.723.1922.
- ***Strategic Planning: For the Community Economic Development Practitioner.*** Mike Lewis and Frank Green, Port Alberni, BC: Centre for Community Enterprise. This step-by-step planning guide uses a case study to illustrate analyses and decision-making of sound strategic planning. A companion workshop manual is available at an additional cost. To obtain this resource contact The CED Bookshop, CCE Publications, PO Box 1161, Port Alberni, B.C. V9Y 7M1, Canada; Tel: 888.255.6779; Fax: 250.723.1922.
- ***New Hampshire Community Profiles 2000 Edition.*** New Hampshire Employment Security, Economic and Labor Market Information Bureau. State Occupational Information Coordinating Committee (SOICC) of New Hampshire. August 2000. This publication provides information on contacts, municipal and emergency services, demographics, taxes, housing, transportation, largest employers, education and child care facilities, etc. for the 234 incorporated cities and towns in the State of New Hampshire.
- ***Comprehensive Economic Development Strategy (CEDS) Update 2001.*** Rockingham Economic Development Corporation (REDC). Exeter, NH. Prepared in compliance with the Rules and Regulations of the Economic Development Administration (EDA), this documents updates the previously approved “Five-Year CEDS,” thereby maintaining the eligibility of local communities and non-profit groups for EDA funds in Rockingham County. Top-, intermediate-, and long-term priority projects are described, along with major development projects and short-term actions.
- ***An Agenda for Continued Economic Opportunity in New Hampshire.*** Business and Industry Association of New Hampshire (BIA). Concord, NH. September 1996. A project team, working under the direction of a BIA economic development steering committee, spent a year researching the most effective ways and means to ensure that New Hampshire continues to enjoy economic prosperity. This report documents their conclusions.
- ***The Economic Impact of Open Spaces in New Hampshire.*** Prepared for The Society for the Protection of New Hampshire Forests by Resource Systems Group, Inc. January 1999. “...[A]n independent analysis of the economic impacts of open space on the economy of the State of New Hampshire. ...open space based economic activities ...[account for] over 25% of New Hampshire’s gross state product. ...[and] provided over 35% of the total state and local tax revenues in 1996/97.” An economic impact model was used to

- analyze data for the four economic sectors (agriculture, forestry, tourism and recreation, and second homes used for vacations and recreation) deemed to be dependent upon open space in New Hampshire.
- ***Achieving Sustainable Communities: Science and Solutions.*** The National Council for Science and the Environment (NCSE), 2002. A Report from the second National Conference on Science, Policy, and the Environment released by The National Council for Science and the Environment (NCSE). This far-reaching document underscores new approaches for creating strong economies and healthy communities and provides constructive approaches to address complex issues such as economic development versus ecosystem protection. Available online at <http://www.cnie.org/NCSEconference/2001conference/report/page.cfm?FID=1692>. Editors of the report have also created a list of the "[Top 10 Keys To Sustainable Communities.](#)" These "Keys" identify the crucial aspects of achieving sustainable communities at the local, regional and national levels. To receive a printed copy of the conference report, send your name and mailing address to conference@NCSEonline.org.
 - ***Hand in Hand: Community and Economic Development in Tupelo.*** Grisham, Vaughn and Rob Gurwitt, Aspen, CO: Aspen Institute, 1999. This book presents a "can do" case study that highlights the roles of visionary leadership and community organizing that wove together the interests of businesses and tenant farmers in a small Mississippi town, giving rise to an industrial and educational renaissance. To obtain this resource contact Aspen Institute Publications, PO Box 222, Queenstown, MD 21658; Tel: 202.736.5804; Fax: 410.827.9174; Internet: <http://www.aspeninst.org/rural>.
 - ***A Plan for Les Cheneaux: Where Nature, Economy and Community Come Together.*** Les Cheneaux Economic Forum 1998. This booklet traces the development of the Les Cheneaux Economic Forum project, which was formed in 1996 to protect and improve the quality of life in Les Cheneaux in the Great Lakes region of Michigan. To obtain this resource contact Linda Hudson or John Griffin, Les Cheneaux Economic Forum, P.O. Box 10, Cedarville, MI 49719; Tel: 906.484.3935.
 - ***Building a Win-Win World.*** Hazel Henderson, San Francisco, CA, Berrett-Koehler Publishers, 1996. Michael Kinsley, Economic Renewal Guide, 3rd Edition, Snowmass, CO; Rocky Mountain Institute, 1997. This manual is a do-it-yourself toolkit for anyone who wants to get sustainable economic development moving in the right direction. To obtain resource contact the Institute at Tel: 970.927.3851 or email orders: orders@rmi.org.
 - ***Community Initiated Development.*** Every town has an abandoned theater, an empty department store, a vacant bank building. Putting 'white elephants' back to productive use is a critical challenge for downtown a challenge that can seem far beyond the abilities of most nonprofit groups. This workbook changes all of that. It provides detailed steps for fill-in-the-blank planning so that you can organize building redevelopment in your community. Also included is the publication, Community Initiated Development: Coming to the Table with Credibility, the case study book of the three-year CID demonstration project in Miami Beach, Philadelphia, and Detroit. Can be ordered at Tel: 202.588.6219.

- ***Economic Restructuring Committee Members Handbook.*** Volunteers can work wonders in your organization but only if you invest in their development. Covers basic responsibilities in market analysis, business recruitment or retention, and real estate development. Can be ordered at Tel: 202.588.6219.
- ***Harvesting Hometown Jobs: The New Small Town Guide to Economic Development.*** Nancy Stark and Hamilton Brown, 2nd Edition, Washington D.C., National Center for Small Communities, 1997. This local economic development guide offers assessment and advice for small town leaders on issues such as strategic planning, fostering enterprises, industrial recruitment, tourism, growth management, and forging partnerships. To obtain copy contact: NCSC, 444 Capital Street, NW, Suite 208, Washington D.C. 2001; Tel: 202.624.3550; email: natat@sso.org.
- ***Principles of Sustainable Development.*** Douglas F. Muschett, Delray Beach, FL, St. Lucie Press, September 1996. This book describes a multifaceted approach to sustainable development, focusing on economic development and environmental management. To obtain a copy contact St. Lucie Press at Tel: 561.274.9906.
- ***Public Markets and Community Revitalization.*** This publication provides a step-by-step development plan, including sample budgets, staffing requirements, tenant mix plans, cash-flow analysis, and cost projections. Photographs, examples, and in-depth case studies illustrate the concepts and clarify the benefits, risks, and issues to consider when developing a public market. Can be ordered on-line at <http://www.mainst.org>.
- ***Step-by-Step Market Analysis: A Workbook for Downtown Business Development.*** Need solid market data to recruit businesses and build the economy downtown, but don't have the money for a consultant? Your organization can do much of the work by following the steps in this easy-to-use workbook. Can be obtained on-line at: <http://www.mainst.org>.
- ***Economic Development and Changing Communities.*** Audio Tape, 2001. Prepared by APA. Hear ways to assess your community's resources and evaluate the appropriateness of development tools such as tax incentives. Can be ordered on-line from PAS at: BookService@planning.org.
- ***Preserving Community Retail.*** Audio Tape, 2002. Prepared by APA. The vitality of a community is linked to its retail. Learn how planning can help preserve, attract, and enhance retail business. Can be ordered on-line from PAS at: BookService@planning.org.

Natural Resources

- ***Where We Live: A Citizen's Guide to Conducting a Community Environmental Inventory.*** Don Harker and Elizabeth Ungar Natter, Berea, KY & Washington D.C., Mountain Association for Community Economic Development and Island Press, 1994. This practical workbook helps citizens

- find information concerning their local environment and use this information in furthering environmental goals.
- ***Preserving Rural Character: The Agriculture Connection.*** Technical Bulletin prepared by NH Office of Energy and Planning, Winter, 2000. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
 - ***Building Inside Nature's Envelope.*** Andy Wasowski and Sally Wasowski, Oxford University Press, 2000. Sensitive development can salvage the land where homes, offices and shopping centers are built, allowing it to retain its natural vegetation and character. This "envelope" approach creates a landscape filled with native flora that can thrive on rainfall alone. The authors highlight tools for revegetation, stress the importance of soils, and discuss ways to preserve natural habitats.
 - ***Local Land Use Conservation Techniques in New Hampshire.*** Jay Minkarah, (legal intern), Conservation Institute, Society for the Protection of New Hampshire Forests. September 1994. This document examines the results of a study "to identify innovative approaches being used in New Hampshire communities to conserve productive forestland, farmland, and open space." Some of the municipal controls and their concomitant legal issues that are discussed are large lot zoning, limited use districts, natural resource-based development standards, and cluster zoning.
 - ***Habitat Protection Planning.*** Christopher J. Duerksen, PAS 470/471, 1987. Development can coexist with a healthy environment and a diverse habitat if it is planned in concord with the environment. This report explains why it's crucial to protect habitat and establishes a framework for making local habitat and establishes a framework for making local habitat protection decisions. It covers legal issues, links specific problems with appropriate tools, and shows how to implement an effective program.
 - ***Endangered Species.*** Danny C. Reinke and Lucinda Law Swartz, eds., Battelle Press, 2001. This overview of the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA) explains what is expected and required for compliance. It summarizes legal precedents and cases that interpret the ESA and MMPA and their implementing regulations. Official documents let you trace an individual issue through all the relevant laws, regulations, and court decisions.
 - ***Identifying and Protecting New Hampshire's Significant Wildlife Habitat: A Guide for Towns and Conservation Groups.*** John Kanter, Rebecca Suomala & Ellen Snyder, Nongame and Endangered Wildlife Program of the New Hampshire Fish and Game Department with support from OSP and U.S. EPA, 2001.
 - ***Working Forest Conservation Easements.*** Brenda Lind, Land Trust Alliance, 2001. A helpful guide to crafting effective conservation easements that protect valuable working forests. Lind describes how to track baseline data and monitor easements. Includes sample easement language, tools for guiding forest management, and a range of approaches for requiring forest management plans.
 - ***Planning for the Future of Local Forests: A Guide for New Hampshire Towns Using the Forestland Evaluation and Site Assessment Process (FLESA).***

- Prepared and published by North Country and Southern New Hampshire Resource Conservation and Development Area Councils, 2001.
- ***Forest Districts – A Handbook for Local N.H. Planners.*** Prepared by Michael B. Bergeron, Franklin Pierce Law Center, for the Society for the Protection of New Hampshire Forests. May 1996. A relatively brief booklet that “...proposes that a town consider creating forestry commercial districts, as a way of preserving forests and stimulating the local economy....” Appropriate guidance and checklists are provided.
 - ***Tree Conservation Ordinances.*** Christopher J. Duerksen, PAS 446, 1993. Tree conservation ordinances can save trees from the destruction that often comes with land development. This extensively illustrated report shows how to establish the value of trees and craft an ordinance to protect them. It explores the politics and practice of tree conservation. It also looks at the legal tests and pitfalls associated with such protection efforts.
 - ***Preparing a Landscape Ordinance.*** Wendelyn A. Martz, APA PAS # 431, 1990. This report shows how to prepare a landscape ordinance that uses standards for spacing, location, size and species that are appropriate for your geographic location and community character. It also explains how to use landscaping to solve common land-use problems and suggests ways to administer a landscape ordinance. Can be ordered on-line from PAS at Subscriptions@planning.org.
 - ***New Hampshire’s Vanishing Forests: Conversion, Fragmentation and Parcelization of Forests in the Granite State.*** Report of the New Hampshire Forest Land Base Study. April 2001.
 - ***“Local Land Use Conservation Techniques in New Hampshire,”*** Society for the Protection of New Hampshire Forests, September 1994
 - ***River Brook.*** James Grant MacBroom, Connecticut Department of Environmental Protection, 1998. This guide explains the relationships between stream ecology, hydrology, water quality, and pollution prevention. It demonstrates how human activities affect natural river processes and suggests practical preservation strategies. Definitions and figures, tables, and color photographs illustrate how rivers work. A wonderful introduction to rivers for both urban and rural planners.
 - ***Protecting Nontidal Wetlands.*** David G. Burke, et. al, PAS 412/413, 1988. This report shows how to create an effective local wetland protection program. It looks at federal, state, and local regulations to protect nontidal wetlands and provides a broad sampling of language from local ordinances that are part of wetland protection programs. Includes a detailed model ordinance.
 - ***Wetlands Mitigation/Restoration Issues.*** Technical Bulletin prepared by NH Office of Energy and Planning, Spring, 1988. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
 - ***Subdivision Design in Flood-Hazard Areas.*** Marya Morris, PAS 473, 1997. Economic, political, and market pressures make some development on floodplains inevitable. But appropriate subdivision designs can minimize risks of flood damage – or eliminate them entirely. This report explains planning techniques that minimize problems in a flood-hazard area. Includes selected ordinances and policies.

- ***A Guide to Controlling Nonpoint Pollution Through Municipal Programs.*** Technical Bulletin prepared by NH Office of Energy and Planning, 1995. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
- ***Nonpoint Source Pollution.*** Sanjay Jeer et al., PAS 476, 1998. Nonpoint source pollution originates from rainwater or snowmelt that picks up pollutants and contaminates drinking water. This report helps planners develop strategies to stop non-point pollution before it happens or to limit its effects. It discusses hydrological resources in watersheds, the impacts of specific land uses, and controlling nonpoint source pollution through best management practices. Contains two model ordinances. Copies can be obtained on-line from the Planners Book Service at: BookService@planning.org.
- ***Best Management Practices to Control Nonpoint Source Pollution: A Guide for Citizens and Town Officials.*** NH Department of Environmental Services, January 2004. For copies contact: bmcmillan@des.state.nh.us.
- ***Design With Nature.*** Ian L. McHarg, John Wiley & Sons, 1969. An elegant reissue of an important planning milestone. This book first brought the concept of environmental sensitivity to the planning profession, and it has served as the basis for much of our most important work. This reprint makes this visionary work available for a new generation of planners.
- ***Once There Were Greenfields: How Urban Sprawl is Undermining America's Environment, Economy and Social Fabric.*** By NRDC and STPP, March 1999. The story of America's most challenging social problems, sprawl development. This book provides research and documented text about landscapes lost, traffic congestion, air and water pollution, public health endangered, and potential energy crisis. To obtain a copy contact: Natural Resources Defense Council, 40 West 20th Street, New York, NY 10011 or go to website: <http://www.nrdc.org>.
- ***Brownfields.*** Todd S. Davis, 2 Edition, American Bar Association, 2002. This updated reference provides information and advice to help remove barriers to redevelopment contaminated real estate. Discover funding sources and learn to resolve the legal, business, financial, and political issues associated with brownfields redevelopment. The book helps interpret federal and state liability laws. It evaluates current State Voluntary Cleanup Programs including financial and tax incentives, eligible or excluded properties, cleanup standards, and liability protections.
- ***Requirements for Soils and Wetlands Data in Subdivision and Site Plan Review Regulations.*** Prepared by NH OEP and DES, September, 1999. This document contains recommended language that can be included in subdivision or site plan review regulations to specify on-site data requirements for local reviews. It was designed to implement the findings of the Ad Hoc Committee on Site Plan Review Requirements, an interagency, multi-disciplinary committee whose charge it has been to develop guidance for planning boards to use in reviewing local subdivision and site plans. The intent is to provide the planning board with guidance as to the type of data needed for making informed land use decisions about developments of different magnitudes and levels of intensity. For each level, the data recommended to be required is specified in this document, as well as the

standards to be used in preparing the data and type of professionals qualified to do the work.

- ***Caring for the Land.*** Bruce Hendler, PAS 328, 1977. A useful introduction to site design and review. It explains design principles and environmental factors to consider when evaluating a development plan. Covers such topics as ecologically sensitive areas, topography, and soil types and introduces design principles that deal with such issues as lotting arrangements, access, and utility placements. Illustrations and maps enhance the text.
- ***“Preservation of Scenic Areas and Viewsheds,” OSP Technical Bulletin #10, Spring 1993*** – This Technical Bulletin, published by the NH Office of State Planning, is intended as a general guide and introduction to the procedures for protecting those scenic resources that make our communities special and unique.
- ***Formulating a Water Resources Management & Protection Plan.*** Technical Bulletin prepared by NH Office of Energy and Planning, Winter, 1992. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
- ***Model Groundwater Protection Ordinance,*** NH OEP and NH Department of Environmental Services, February 1999.
- ***American Ground Water Trust website*** – The American Ground Water Trust is a not-for-profit education organization incorporated in 1986 and headquartered in Concord, New Hampshire, USA. The Trust, an independent authority on the hydrologic, economic and environmental significance of ground water, combines technical expertise with a track record of networking and communication skills. Address: American Ground Water Trust, 16 Center Street, Concord, New Hampshire 03301 USA. Phone: (603) 228-5444 or Fax: (603) 228-6557 Website: <http://www.agwt.org>.
- ***What is a Forested Floodplain?*** Technical Bulletin prepared by NH Office of Energy and Planning, Spring, 2001. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
- ***“The Legal Tools for Water Protection.”*** Bernard H. Waugh, Jr. NH Town and City, April 1987.
- ***Squam Lakes Watershed Management Plan.*** NH OEP, May 1991.
- ***“Tools and Strategies – Protecting the Landscape and Shaping Growth,”*** National Park Service, April 1990.
- ***Cooling Our Communities: A Guidebook On Tree Planting and Light – Colored Surfacing,*** EPA, January 1992.
- ***Natural Resources Inventories: A Guide for New Hampshire Communities and Conservation Groups.*** Philip Auger and Jeanie McIntyre, UNH Cooperative Extension, 1991; Revised and updated by Amanda J. Lindley Stone, 2001.
- ***“Preserving Rural Character: The Agricultural Connection” OSP Technical Bulletin #6, revised, Winter 2000*** – This Technical Bulletin aims to help communities understand the connection between preserving rural character and a prosperous agricultural sector. Copies of the Bulletin may be obtained from the New Hampshire Office of Energy and Planning website: <http://www.nh.gov/oep/index.htm>.
- ***Managing Stormwater as a Valuable Resource – A Message for New Hampshire Municipalities and Water Suppliers,*** New Hampshire Department of Environmental Services, Water Division, September 2001.

- ***Local Land Use Management Techniques for Water Resources Protection and Geographic Inventory Procedures***, NH OEP, January 1992.
- ***Land Use Management Techniques for Water Resources Protection***, NH OEP, January, 1992.
- ***Best Management Practices to Control Nonpoint Source Pollution: A Guide for Citizens and Town Officials***, NH DES, May 1994. (This publication is available from the Department of Environmental Services Public Information Office at 603/271-2975).
- ***Formulating a Water Resources Management & Protection Plan***, NH OEP Technical Bulletin #9 (winter 1992).
- ***Model Rule for the Protection of Water Supply Watersheds***, NH Dept. of Environmental Services, April 2000.
- ***“Summary of Wetland Regulations for the Nashua Region,”*** Intermunicipal Aquifer Study for the NRPC, September, 1990.
- ***Wetlands Mitigation Issues and Regulations Analysis***, NH OEP, August, 1993.
- ***Functions and Values of Forested/Scrub-Shrub Wetlands; Research Summary***, NH OEP, 1995 – Report contains a scientific review of literature related to certain forested/shrub wetland types, which are found in New Hampshire. Specifically, the literature review focuses on the Red Maple (*Acer rubrum*) Swamps, Atlantic White Cedar (*Chamaecyparis thyoides*) Swamps and scrub-shrub swamps. The goal of this research was to search for and compile scientific data that could aid the Wetlands Bureau in developing evaluation criteria for assessing impacts to the state’s forested/scrub-shrub wetlands. The results of the literature review are presented in terms of those wetland functions and values, which the State’s wetlands statute and Wetlands Board Administrative Rules recognize as important.
- ***“Aquifer Mapping in New Hampshire”***, NH DES Environmental Fact Sheet CO-GEO-5 2000.
- ***Buffers for Wetlands and Surface Waters: A Guidebook for New Hampshire Municipalities***, Chase, V.P., L.S. Deming, F. Latawiec, Audubon Society of New Hampshire, 1995.
- ***Model Floodplain Development Ordinance***. (August, 1996 Revision) NH Office of Energy and Planning. This model generally tracks the requirements of the Comprehensive Shoreland Protection Act. It also goes beyond the minimum requirements of the Act in several areas. Each of the sections which goes beyond the minimum requirements of the Act is preceded by an (*) and shown in boldface type. A municipality may decide to adopt all or any portion of this proposal as presented. Each section of the model includes explanations as appropriate. . The Act itself states that the standards described in the Act are minimums a municipality may adopt more stringent standards which, in effect, would supercede those minimums.
- ***Answers to Questions about the National Flood Insurance Program***, FEMA, March 1992 – This pamphlet is intended to acquaint the public with the National Flood Insurance Program (NFIP). Despite the highly technical nature of the Program, there has been a deliberate effort to minimize the use of technical terms. This publication is designed for readers who do not need a detailed history or refined technical or legal explanations, but do need a basic understanding of the program and the answers to some frequently asked questions. Readers who need legal definitions should refer to the

Standard Flood Insurance Policy and to Federal regulations. Readers can obtain the most up-to-date insurance information and a free copy of this pamphlet by contacting: NH Office of Energy and Planning, 57 Regional Drive, Concord, NH 03301 Phone: (603) 271-2155.

- ***Guide to Flood Insurance Rate Maps***, FEMA, December 1994 – This guide will help you read and understand a Flood Insurance Rate Map (FIRM). The FIRM is one product of a Flood Insurance Study conducted by the Federal Emergency Management Agency to establish the extent of the flood hazard within a flood-prone community. Once published, the FIRM is an important source of flood risk data for the implementation of the National Flood Insurance Program in that community. To obtain a copy of this booklet contact: NH Office of Energy and Planning, 57 Regional Drive, Concord, NH 03301 Phone: (603) 271-2155.
- ***Riparian Conservation: A Professional's Practical Guide to Financial Assistance and Program Support***. A three-ring conference binder published by the New Hampshire State Conservation Committee, March 22, 2001.
- ***Buffers for Wetlands and Surface Waters***. (11/95 revised 5/97) – this document is the result of a cooperative effort between the Audubon Society of NH, UNH Cooperative Extension, the Office of State Planning and the Natural Resources Conservation Service. It provides a summary of the technical basis for vegetative buffer requirements adjacent to priority wetlands and surface waters.
- ***Rapid Watershed Planning Handbook***. Deb Caraco et al., Center for Watershed Protection. 1999. This guide can help you create an effective watershed plan quickly and inexpensively. It is geared toward watershed planning professionals and it details management options, analysis tools, and case studies of real-world watershed plans. Included are practical techniques for crafting an effective plan as well as guidance on plan mapping, monitoring, and modeling techniques. The handbook contains references, cost estimates for both initiating planning and plan implementation, as well as an extensive glossary for planning professionals.
- ***1992 Natural Resources Inventory***, Natural Resources Conservation Service, USDA, 1994.
- ***New Hampshire's Changing Landscape – Population Growth, Land Use Conversion and Resource Fragmentation in the Granite State***. Prepared by Dan Sundquist, The Society for the Protection of New Hampshire Forests, and Michael Stevens, The New Hampshire Chapter of the Nature Conservancy. Concord, NH. October 1999. Documents the impact of growth upon New Hampshire's natural resource base. Available for viewing at <http://www.spnhf.org>. SPNHF Tel. (603) 224-9945).
- ***Guide to Wellhead Protection***. Jon Witten and Scott Horsley, PAS 457/458, 1995. This report provides all the information you need to start a wellhead protection program. It reviews the fundamentals of hydrology, the causes and effects of contamination, the basics of wellhead management and protection, and the financial strategies available to communities interested in starting a program.
- ***Municipal Guide to Wetland Protection, State of New Hampshire***. September 1993. This document lays out the procedure that should be followed by New Hampshire communities in order to properly evaluate

- wetlands for the purpose of designating prime wetlands, locating important sites for a groundwater supply or for flood control, identifying threatened areas, or just obtaining more information about this resource.
- ***Natural Resources: An Inventory Guide for New Hampshire Communities.*** Phil Auger and Jeanie McIntyre, The Upper Valley Land Trust, Norwich, VT (802/649-1444) and UNH Cooperative Extension, Durham, NH. (603/862-1029). 1991; Revised July 1992. A comprehensive step-by-step explanation of how to prepare a descriptive listing of important naturally occurring resources. Fourteen appendices include a sampling of projects, listings of available resources, contact information, and evaluation techniques.
 - ***Atlantic White Cedar Wetlands of New Hampshire.*** Daniel D. Sperduto and Nur Ritter. Report submitted to the Environmental Protection Agency, Region 1, under the auspices of the New Hampshire Natural Heritage Program, Department of Resources and Economic Development, Concord, NH and The Nature Conservancy, Boston, MA. October 1994. "This report documents the status of Atlantic White Cedar (AWC) in NH, including the distribution, condition, acreage, vegetation and ecological characteristics of the known population."
 - ***Method for the Comparative Evaluation of Nontidal Wetlands in New Hampshire.*** A. P. Ammann and A. Lindley Stone. Supported by the USDA Soil Conservation Service and the Audubon Society of New Hampshire Wetlands Protection Project. Published by the New Hampshire Department of Environmental Services. Concord, NH. March 1991. "This manual provides a method of wetland evaluation for use by public officials and others who have some familiarity with wetlands, but who are not necessarily wetland specialists. It is intended to be used for planning, education, and wetland inventory purposes and not for detailed impact analysis on individual wetlands."
 - ***Lineament Maps of the New Hampshire Bedrock Aquifer Assessment.*** US Department of the Interior, US Geological Survey. Pembroke, NH. 1997; Area 1 - Southeastern New Hampshire. OFR 96-489; Area 2 - Southeastern New Hampshire. OFR 96-490; Area 3 - Eastern New Hampshire. OFR 97-762; Area 4 - Southeast-central New Hampshire. OFR 97-763; Area 5 - Southwestern New Hampshire. OFR 97-761.
 - ***Piscataquog River Management Plan.*** Piscataquog River Local Advisory Committee. September 1999. A plan developed by representatives of communities located along the river "...in accordance with the guidelines of NHRSA 483 to create a framework for long-term use and protection of the Piscataquog River." Appendices include lists of river and watershed resources, a matrix of existing regulations, and contact information.
 - ***Wellhead Protection Programs: Tools for Local Governments.*** Office of Groundwater Protection, United States Environmental Protection Agency. April 1989. A technical assistance document to help local officials delineate wellhead protection areas, identify sources of contamination, develop both management and contingency plans for public water supply systems, site new wells properly and encourage public participation in the process.
 - ***Water Resource Management and Protection Plan – Town of Londonderry, N.H.*** Prepared for the Planning Board by the Southern New Hampshire

- Planning Commission. February 1991. “The purposes of this Plan are to identify and, to the extent possible, to evaluate the adequacy of existing and potential water resources to meet the current and future needs of the community; to identify existing and potential threats to surface and groundwater supplies; and to identify regulatory and non-regulatory programs that could further enhance water resource management and protection efforts.”
- ***Developing a Local Inventory of Potential Contamination Sources.*** Prepared for the NH Department of Environmental Services by the NH Office of State Planning. October 1991. This document specifies the steps necessary to properly identify, verify, inventory and map sources of potential groundwater contamination. NHDES-WSPCD-91-8.
 - ***Water, Water, Water. Are we running out? Are we managing it wisely?*** New Hampshire Office of State Planning. October 1982. This document presents findings regarding New Hampshire’s water supply—its priority water supply problems and both immediate and long-term needs and options for meeting those needs.
 - ***Solutions for the Future...Actions for the Present.*** The 1993 Merrimack River Water Management Conference on June 7-8, 1993 in Bedford, NH. Proceedings compiled by Rich, Barbara J., New England Interstate Water Pollution Control Commission. Wilmington, MA. This conference, aimed at providing a forum for divergent interests to “come up with new solutions to old problems,” held sessions on such issues as nonpoint source pollution; resource value, protection and management; the role of business & industry; geographic information systems; local action and partnerships, among others. Excellent collection of papers by distinguished participants.
 - ***Water Resource Management and Protection Plan, City of Manchester, N.H.*** Prepared for the Planning Board by the Southern New Hampshire Planning Commission in cooperation with the Manchester City Planning Department. November 1990. “The purposes of this Plan are to identify and, to the extent possible, to evaluate the adequacy of existing and potential water resources to meet the current and future needs of the City; to identify existing and potential threats to surface and groundwater supplies; and to identify regulatory and non-regulatory programs that could further enhance water resource management and protection efforts.” -- Appendix. Appendices include Watershed Acreage Distribution; Lakes and Ponds in Manchester; Generalized Poorly and Very Poorly Drained Soils by Watershed; Summary of Well Completion Report Data for the City of Manchester; Inventory of Underground Petroleum Storage Tanks; and Soil Potential Ratings for Septic System Development, Manchester, NH.
 - ***Wellhead Protection Program for the Goffstown Village Water Precinct.*** Prepared by the Southern New Hampshire Planning Commission. June 1996. This project was undertaken “to develop and implement a local wellhead protection program designed to prevent or minimize the potential for contamination...” Along with information on the process and methodology involved, this report identifies potential contamination sources, assesses best management practices, and recommends non-regulatory mechanisms to help prevent future problems.

- ***Best Management Practices to Control Nonpoint Source Pollution: A Guide for Citizens and Town Officials.*** May 1994; Revised November 1997. New Hampshire Department of Environmental Services. Edited by Williams, Eric, Coordinator, Nonpoint Source Program, DES. DES Nonpoint Source Program Tel No. (603) 271-2304. This document describes the causes of nonpoint source (NPS) pollution and suggests ways to prevent it. Best management practices (BMPs) and contact information are listed.
- ***A Guide to Identifying Favorable Areas to Protect Future Municipal Wells in Stratified Drift Aquifers.*** Volume 1. New Hampshire Department of Environmental Services. January 1999. This guide focuses on identifying unconstrained areas for the potential siting of municipal public water supply wells in stratified-drift aquifers, with a view toward preserving them for future use....” This document is described by the authors as a “planning tool, not a specific well-siting tool.”
- ***Stormwater Management for New Hampshire Communities.*** Prepared for the New Hampshire Department of Environmental Services by the Southern New Hampshire Planning Commission. June 1999. The main focus of this handbook is an explanation of the rules, effective in the fall of 1999, pursuant to Phase II of the U.S. Environmental Protection Agency’s “National Pollutant Discharge Elimination System.” Appendices include contact information; “Liability Issues”; a “Model Stormwater Management and Erosion Control Regulation” prepared by the New Hampshire Association of Conservation Districts, Water Quality and Urban Conservation Committee; and “Storm Drain Stenciling.”
- ***New Hampshire Nonpoint Source Management Plan.*** New Hampshire Department of Environmental Services. October 1999 Update. This document “...describes the status of nonpoint source (NPS) problems in New Hampshire and lists specific actions for the next five years relative to statewide programs and nonpoint source types to improve water quality by preventing and controlling nonpoint source pollution.” Contains many useful maps and references.
- ***Watershed Connections – Merrimack River Initiative Management Plan.*** Ellen Frye and Carolyn Jenkins, New England Interstate Water Pollution Commission (NEIWPC); Trish Garrigan, U.S. Environmental Protection Agency (EPA), Region I; and Ted Diers, Merrimack River Watershed Council. March 1997. The Merrimack River Initiative (MRI), which involves two states (New Hampshire and Massachusetts), was funded by a §104(b)(3) Water Quality Grant from the EPA to the NEIWPC. “This Management Plan is the culmination of a multi-year effort...to come to a better understanding of the problems and challenges facing the 5,010 square mile Merrimack River watershed.” A well organized and comprehensive report.
- ***Model Rule for the Protection of Water Supply Watersheds.*** New Hampshire Department of Environmental Resources. April 2000. In addition to providing a model rule, this document explains why it is imperative to protect the watershed area from contamination, how to adapt the rule to a local system’s needs, and the process that should be followed in order to get an effective and enforceable rule adopted.

- ***Managing Stormwater as a Valuable Resource. A message for New Hampshire municipalities and water suppliers.*** New Hampshire Department of Environmental Services. September 2001. This document details the best management practices (BMPs) now being recommended “to minimize the amount of impervious area and to maximize the opportunities for naturally treated stormwater to infiltrate into the ground.” Contains eight appendices including ‘land uses which may not use artificial infiltration when located in critical areas,’ fact sheets about federal stormwater Phase II permits, and a sample ordinance and BMP Maintenance Agreements.
- ***RSA 155-E: The Law Governing Earth Excavations.*** A handbook prepared by the Southwest Regional Planning Commission, 1999. This resource guide is designed to assist towns in understanding and applying the state statutes that govern earth excavations. It includes an explanation of the law, with the major amendments of 1989 and subsequent revisions; recommended procedures for Planning Boards to follow in enforcing the law; a model excavation regulation with several supporting documents; a review of relevant court cases since 1989; and a brief discussion of the Excavation Tax and Excavation Activity Tax, effective as of April 1, 1998.
- ***RSA 155-E: Earth Excavations.*** A video prepared by OSP. This video provides a basic understanding of RSA 155-E, the law governing earth excavations and covers the operational and reclamation standards and common questions and answers. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
- ***Erosion and Sediment Control.*** A video prepared by New Hampshire Coastal Program (NHCP). This training video describes the process of erosion, the regulatory environment in New Hampshire and the proper installation and maintenance of selected Best Management Practices that are to control erosion and sedimentation. Also included with the video is a short handout. To obtain a copy contact: NH OEP, 57 Regional Drive, Concord, NH 03301. Call: (603) 271-2155.
- ***Northeast Rural Water Association website.*** NeRWA is a nonprofit association of water and wastewater systems in Massachusetts, New Hampshire and Vermont. Among its many services, NeRWA offers training and technical assistance via its highly experienced staff.
- ***Drinking Water Source Protection Program website,*** NH DES, Water Division.
- ***Protecting Wildlife and Open Space.*** Video Tape, 1992. Published by the American Planning Association. Understand the objectives of wildlife conservation. Trace the evolution of pertinent legislation and the development of guidelines for conservation and management. Obtain this resource on-line from PAS at: BookService@planning.org.
- ***Farmland Preservation.*** Audio Tape, 1998. Prepared by APA. Discover how creative state and local policies and inclusive community planning can save farmland and slow urban sprawl. Can be ordered from PAS on-line at: BookService@planning.org.
- ***Property Rights vs. Public Resource Protection.*** Audio Tape, 1998. Prepared by APA. Hear from planners, lawyers, and developers about ways to handle situations where government actions increase private property values. Can be ordered from PAS on-line at: BookService@planning.org.

- ***Using Scientific Information for Better Planning.*** Audio Tape, 2001. Prepared by APA. Hear how planners can access and evaluate scientific data to strengthen community planning and develop legally defensible regulatory programs. Can be ordered from Pas on-line at: BooksService@planning.org.

Natural Hazards

- ***Disaster Response.*** Gary Amdahl, ESRI Press, 2001. The effective use of GIS technology will improve your ability to assist those on the front lines fighting fires, managing evacuations, and cleaning toxic spills. Case studies illustrate the best new strategies for mitigation, response, and recovery from both natural and human disasters. A variety of disasters and scenarios are portrayed, including a mudslide and wildfires.
- ***Planning for Post-Disaster Recovery and Reconstruction.*** Jim Schwab, APA PAS# 483/484, 1998. The first all-hazards guide for developing local plans for post-disaster recovery. It includes a model ordinance and case studies of five different disasters – flood, earthquake, tornado, wildfire, and hurricane. It helps your community identify local natural hazards, assess risk, and outline the process of developing and implementing plans for post-disaster recovery.
- ***A Guide to Hazard Mitigation Planning for New Hampshire Communities.*** Prepared for New Hampshire Office of Emergency Management by Southwest Region Planning Commission, October 2002.
- ***State and Local Mitigation Planning: How-To Guides.*** FEMA, September 2001, FEMA 386-1. A series of guidebooks for preparing local hazard mitigation plans.
- ***“A Guide to Controlling Nonpoint Pollution Through Municipal Programs.”*** Paul Susca, OSP Technical Bulletin #11, 1995 – This is a companion guide to a booklet published by the NH Department of Environmental Services, “Best Management Practices to Control Nonpoint Source Pollution: A Guide for Citizens and Town Officials” (1994). While the DES Guide describes the causes of nonpoint pollution and what can be done to prevent it, this Technical Bulletin focuses on nonpoint sources of special concern to coastal waters. It further provides guidance on improving the effectiveness of local ordinances and regulations and other municipal programs. Use of the information in this Technical Bulletin need not be limited to coastal communities. Many of the recommendations apply equally to inland freshwater lakes and streams.
- ***On-line Non-point Source (NPS) Pollution Manual*** available from the American Ground Water Trust.
- ***Model Stormwater Management and Erosion Control Regulations,*** NH Association of Conservation Districts Water Quality and Urban Conservation Committee, Final Draft – February, 1997.
- ***Impacts of Development Upon Stormwater Runoff,*** DES Environmental Fact Sheet #WD-WQE-7, 1996.
- ***Erosion and Sediment Control (video)*** – The New Hampshire Coastal Program (NHCP) is pleased to announce the creation of a new training video on erosion and sediment control. This video, entitled “Where the Weather

Meets the Road: A Sedimental Journey,” was produced with conservation commissions and planning boards in mind. The video describes the process of erosion, the regulatory environment in New Hampshire and the proper installation and maintenance of selected Best Management Practices that are used to control erosion and sedimentation. Also included with the video is a short handout to accompany the video. This handout is mostly a “cheat sheet” which summarizes the main points of the video.

- ***Hazards Analysis for Emergency Management.*** Federal Emergency Management Agency. September 1983. This guide for hazards analysis was published to coincide with the implementation of the Integrated Emergency Management System (IEMS) at all levels of government nationwide. “Before a community can plan how to deal with potential disasters, the hazards that can lead to these disasters must be identified and priorities for action must be assigned.”
- ***Emergency Response Planning in the Lower Merrimack River: An Interstate Approach to Water Supply Protection – Town of Bedford, NH. Phase I.*** Prepared by staff of the Nashua Regional Planning Commission, the Southern New Hampshire Planning Commission, the Northern Middlesex Council of Governments and the Merrimack Valley Planning Commission. April 1993; Revised March 1994. According to a study by the U.S. Environmental Protection Agency, the Merrimack River corridor is at high risk for occurrence of a hazardous materials incident. Since the river is a source of drinking water for many communities in both New Hampshire and Massachusetts, a regional and interstate emergency notification and response procedure was developed. This draft strategy document (Phase I of II) outlines the scope, methodology, recommendations, etc. for this project, with particulars for the Town of Bedford, NH.
- ***Emergency Response Planning in the Lower Merrimack River: An Interstate Approach to Water Supply Protection in New Hampshire and Massachusetts.*** Phase II. July 1994. Phase I of this two-phase project resulted in a draft strategy document. This report “documents the Phase II activities of the regional agencies with regard to their efforts to finalize the strategy document and to promote ...the adoption of an intermunicipal and interstate communications and response network....”
- ***Stream Maintenance Guides for Towns and Landowners.*** Prepared by NH Office of Emergency Management & NH Association of Conservation Districts, 1999. This guide provides tips on maintaining stream flow and reducing safety hazards as part of a routine watercourse planning and maintenance program.
- ***Landslide Hazards and Planning.*** Jeer Sanjay, ed., Expected publication date December 2003. Is there a comprehensive approach to managing development on hillsides, steep slopes, and geologically hazardous areas? How can such an approach incorporate information from geology and earth sciences to create plans and ordinances that mitigate hazards? What changes in the planning process can address landslides as a development constraint? Planners face these questions as development pressures force local communities to build in geologically sensitive areas. This guidebook, sponsored by the U.S. Geological Survey, provides a single source for

planners about landslide hazards. To order on-line contact: PAS at Subscriptions@planning.org.

Recreation

- ***Parks, Recreation, and Open Space***. Alexander Garvin, PAS 497/498, 2001. Drawing on case studies of successful new and restored open space projects, Garvin offers detailed recommendations for acquiring, financing, developing, and maintaining land for parks and open space. Illustrated with the author's own photographs, this report will help anyone determined to restore green and public places to the forefront of city planning.
- ***Parks, Recreation, and Open Space – A Twenty-First Century Agenda***. Alexander Garvin, American Planning Association Planning [APA] Advisory Service Report Number 497/498. December 2000. Sponsored in part by the City Parks Forum (CPF e-mail cpf@planning.org - tel. 312-431-9100; information on APA's web site (<http://www.planning.org>). This report addresses park, recreation, and open space acquisition, financing, creation, development, and maintenance in the new century."
- ***Parks and Economic Development***. John L. Crompton, PAS 502, 2002. Crompton explains how to measure and report the positive economic impact of parks and open space on the financial health of local businesses and government. Impact studies, graphs, charts, and other aides included in the report show how these contributions more than compensate for local tax dollars spent on acquiring, upgrading, and maintaining parks and other outdoor recreational areas.
- ***Economics of Protecting Rivers, Trails and Open Space***. National Park Service, 4th Edition, 1995. Shows how parks benefit the local economy by creating jobs, enhancing property values, attracting businesses and increasing local tax revenues.
- ***Park, Recreation, Open Space, and Greenway Guidelines***. National Recreation and Park Association, 3rd Edition, 1996. The standards in this book will help communities identify citizen's recreational needs and design parks and other facilities appropriately. It offers population-based guidelines on space requirements, location, and service radius for sports courts and arenas, archery ranges, trails, beaches, swimming pools, and running tracks, among others.
- ***Greenways: The Natural Connection***, Linda Lamb, PAS MEMO, May, 1992 – This article discusses the five types of Greenways --- Urban River, Ecological, Scenic Drives and Historic Routes, Pathways, and Comprehensive. It also discusses the economic benefits, as well as other natural resource benefits, funding, and acquiring land. A copy of this report is available for review at the NH Office of Energy and Planning, 57 Regional Drive, Concord, NH during regular business hours: Monday – Friday 8:00 am to 4:30 pm. You may obtain this report from: Planner's Book Service, 122 S. Michigan Ave. Suite 1600 Chicago, IL 60603-6107. Phone: (312) 786-6344, Fax: (312) 431-9985. Bookorder@planning.org.
- ***Greenways for America***. Charles Little, Johns Hopkins University Press, October 1990. A journalistic account of existing greenways and how they

- came to be, the book also offers many practical ideas and inspiration for those who want to develop greenways in their community.
- ***Trails for the Twenty-First Century.*** Charles Flink, Kristine Olka and Robert M. Searns, 2nd Edition, 2001. The second edition of this popular guide covers the planning, design, and maintenance of multi-use trails. It contains a wealth of new information, including tips on designing and building trails in environmentally sensitive areas and current research on topics ranging from trail surfacing to conflict resolution. Case studies demonstrate examples of well-designed interconnected trail systems linking places where people work, live and play.
 - ***Park Planning Guidelines.*** George E. Fogg, 3rd Edition, National Recreation and Park Association, 1991.
 - ***Outdoor Recreation Facility Standards and Projected Total Needs for NH,*** SCORP, NH OEP. 1994.
 - ***Urban Parks Online*** – Interactive site of information, ideas and models about urban parks. <http://www.pps.org/urbanparks>.
 - ***Public Access Plan for New Hampshire's Lakes, Ponds, and Rivers.*** New Hampshire Office of Energy and Planning, 57 Regional Drive, Concord, NH, November 1991. A report outlining New Hampshire's past efforts and future goals and recommendations for providing expanded public access to its public waters.
 - ***A Guide to Municipal Recreation.*** New Hampshire Office of State Planning with assistance from the N.H. Department of Resources and Economic Development, Division of Parks and Recreation. 1995. A guide for volunteer recreation commission members in those municipalities without professional staff. Instruction on how to organize a recreation commission, develop a plan, and carry out a recreation program. Appendices provide sample documents, appropriate contact information, lists of available resources, national standards and guidelines, etc.
 - ***The Piscataquog Trailway Final Report.*** Prepared for the City of Manchester by Kimball Chase Co. April 2000. "This project involves planning and preliminary design of approximately 1.6 miles of bicycle/pedestrian trailway within the City of Manchester on the west side of the Merrimack River. ...The intent of the project is to connect to an existing bicycle/pedestrian trailway on the east side of the Merrimack River ...eventually linking central Manchester to outlying communities." A detailed technical report.
 - ***Urban Parks and Green Spaces.*** Audio Tape, 2000. Prepared by APA. Discover how changing recreational habits, neighborhood demographics, and city budgets affect park planning and design. Can be ordered on-line from PAS at: BookService@planning.org.

Cultural & Historic Resources

- ***Preparing a Historic Preservation Plan.*** Bradford J. White and Richard J. Roddewig, Planning Advisory Service (PAS) 450, 1994. This report shows planners how to prepare a plan to protect historic resources. It examines the 10 essential elements of a good preservation plan. Case studies illustrate how communities can modify these elements to fit individual needs. A look at

Atlanta, for example, illustrates how that city was able to build a planning consensus among preservationists and developers. A summary of growth management laws in 11 states shows how these laws address important historic preservation issues. A copy of this report is available for review at the NH Office of State Energy and Planning, 57 Regional Drive, Concord, NH during regular business hours: Monday – Friday 8:00 am to 4:30 pm. You may also obtain this report from: Planner’s Book Service, 122 S. Michigan Ave. Suite 1600 Chicago, IL 60603-6107. Phone: (312) 786-6344, Fax: (312) 431-9985. Bookorder@planning.org.

- ***Innovative Tools for Historic Preservation.*** Marya Morris, APA PAS # 438, 1992. Although still the most popular, the local preservation ordinance is no longer the only historic preservation tool. Traditional techniques to preserve historic landmarks and districts have not fully succeeded. This report presents nontraditional techniques for meeting preservation objectives and analyzes how they are working. Case studies evaluate the success of conservation districts, downzoning, comprehensive plans with historic preservation elements, and tax and financial incentives.
- ***Urban Planning Conservation and Preservation.*** Nahoun Cohen, McGraw-Hill, 2001. This comprehensive manual tells how to rehabilitate and preserve not only buildings, but entire neighborhoods and cities. It provides tools to analyze urban environments and create strategies to save city neighborhoods. A CD-ROM provides practical examples to help planners revitalize neglected downtowns while preserving heritage.
- ***Basic Preservation Procedures.*** An introduction to the field of historic preservation that outlines key steps to building a successful preservation program. Preservation Books, National Trust for Historic Preservation, 1785 Massachusetts Ave., N.W. Washington D.C. 20036; Tel: 202.588.6296.
- ***Design Review in Historic Districts.*** An explanation of the design review process, the role of the historic district commission, design guidelines, legal issues, and the significance of certified local government status. Preservation Books, National Trust for Historic Preservation, 1785 Massachusetts Ave., N.W. Washington D.C. 20036 Tel: 202.588.6296.
- ***The Economics of Historic Preservation: A Community’s Leader’s Guide.*** 100 economic reasons as to why older and historic buildings should be saved. Preservation Books, National Trust for Historic Preservation, 1785 Massachusetts Ave., N.W. Washington D.C. 20036 Tel: 202.588.6296.
- ***Establishing an Easement Program to Protect Historic, Scenic and Natural Resources.*** Practical advice on legal and administrative issues for organizations that want to set up an easement program. Preservation Books, National Trust for Historic Preservation, 1785 Massachusetts Ave., N.W. Washington D.C. Tel: 202.588.6296.
- ***Getting Started: How to Succeed in Heritage Tourism.*** A 48-page color guide to help communities combine preservation and tourism to obtain manageable economic growth. Preservation Books, National Trust for Historic Preservation, 1785 Massachusetts Ave., N.W. Washington D.C. 20036 Tel: 202.588.6296.
- ***Guiding Design on Main Street: Buildings.*** The most comprehensive Main Street design guide to date. This publication can help downtown

- professionals overcome “design-phobia” about historic building renovation issues. Can be ordered on-line at: <http://www.mainst.org>.
- ***Main Street Success Stories.*** Suzanne G. Dane, National Trust for Historic Preservation, 1987. The National Trust has helped renovate traditional Main Streets and make them competitive. This illustrated book highlights communities that beat the odds to revitalize their downtowns. An in-depth look at more than 40 of America’s best Main Street programs explores major achievements, reinvestment statistics, lessons learned, and keys to success.
 - ***Innovative Tools for Historic Preservation.*** A look at financial incentives, conservation districts, comprehensive down zoning, growth management programs and comprehensive planning, and regulatory relief. Co-published with the American Planning Association. To obtain copy contact: Preservation Books, National Trust for Historic Preservation, 1785 Massachusetts Ave., N.W. Washington D.C. 20036 Tel: 202.588.6296.
 - ***Maintaining Community Character: How to Establish a Local Historic District.*** A proactive strategy for influencing local policy and opinions about the creation of a local historic district. To obtain copy contact: Preservation Books, National Trust for Historic Preservation, 1785 Massachusetts Ave., N.W. Washington D.C. 20036 Tel: 202.588.6296.
 - ***Your Town: Designing It’s Future – A Rural Community Design Workshop and Follow-up Case Studies.*** Richard Hawks and Shelley Mastran, National Trust for Historic Preservation, State University of New York, College of Environmental Science. “Your Town...is a program of workshops to teach rural community leaders about the importance of design in planning. ...This publication ...describes some of its successes through four case-study communities.”
 - ***Building on the Past – Traveling to the Future (Second Edition) – A Preservationist’s Guide to the Federal Transportation Enhancement Provision.*** Federal Highway Administration and National Trust for Historic Preservation. The Transportation Equity Act for the 21st Century (TEA21) includes a funding category called Transportation Enhancement (TE), which allows communities to apply for transportation-related projects that contribute to historic preservation. This document explains the process, and presents examples of successfully completed projects.
 - ***“The New Takings Jurisprudence: Its Effect on Historic Preservation and Downzoning.”*** Marya Morris, APA-PAS #416, 1989.
 - ***The Secretary of the Interior’s Standards for Rehabilitation and Illustrated Guidelines for Rehabilitating Historic Buildings.*** Anyone hoping to rehabilitate a historic structure for the 20-percent federal tax credit knows it must comply with the Secretary of the Interior’s Standards. This illustrated new publication greatly simplifies and clarifies the rehabilitation standards that some have found too daunting. Can be ordered on-line at: <http://www.mainst.org>.
 - ***Using the Community Reinvestment Act in Low-Income Historic Neighborhoods.*** A case study of the efforts of a coalition of Pittsburgh community organizations to reverse the red-lining practices of financial institutions and bring historic preservation benefits to low-income and minority neighborhoods. To obtain copy contact: Preservation Books,

National Trust for Historic Preservation, 1785 Massachusetts Ave., N.W.
Washington D.C. 20036 Tel: 202.588.6296.

- ***Historic Preservation and Downtown Renewal.*** Video Tape. Published by the American Planning Association. Incorporates preservation efforts into your downtown revitalization plans. See how to maintain existing mixed-use commercial areas and develop new uses in older downtowns. Obtain this resource on-line from PAS at: BookService@planning.org.

Regional Concerns

- ***Managing Growth in New Hampshire: Changes and Challenges Growth Management Committee Report to Governor Shaheen, December 2000*** – this study examined the nature of sprawl in New Hampshire and looked for ways in which public policies and programs may be contributing to the growth of sprawl. This study looked for ways in which state and local government policies and actions induce sprawl. This report offers a series of recommendations to strengthen the ability of state and local governments and regional organizations to cope with the challenges of future growth. Detailed analysis of statewide growth indicators, municipal case studies, and a review of how other state areas addressing similar concerns support the recommendations. A limited number of copies of the final report are available from the New Hampshire Office of Energy and Planning (NH OEP). The Executive Summary is available free of charge. Both are available to download from the NH OSP website:
<http://www.nh.gov/oep/index.htm>.
- ***Report to Governor Shaheen on Sprawl, December 1999*** - Report to Governor Shaheen pursuant to Executive Order 99-2 directing state agencies both to recognize the importance of preserving New Hampshire's traditional communities and landscapes, and to evaluate actions they either are taking or might be taking to further the goal.
- ***Report to Governor Shaheen on Sprawl, December 2001 New Hampshire Council on Resources and Development 2001 Annual Report on Growth Management*** – This report is in response to Chapter 292, HB 1259, which establishes a coordinated and comprehensive effort by state agencies for economic growth, resource protection and planning policy to encourage smart growth. This report is an update to the December 1999, Report to Governor Shaheen on Sprawl. CORD once again asked state agencies to evaluate what they are currently doing that may be having an impact, either positive or negative, on sprawl, and then asked them to examine how they might better address these issues in the future.
- ***Sprawl and Smart Growth Choices for Southern New Hampshire Communities*** SNHPC, August 2002.
- ***Planning for an Aging Society, April 1994*** – the growth in America's elderly population is becoming increasingly an issue for planners. This population has different transportation and housing needs that communities need to consider. This PAS report explains how your community can plan for an aging society and contains information on: the demographics of the aging, physical changes that come with growing older, several housing options, site

planning, and various modes of transportation available to the elderly – from walking to public transit. A copy of this report is available for review at the NH Office of Energy and Planning, 57 Regional Drive, Concord, NH during regular business hours: Monday – Friday 8:00 am to 4:30 pm. You may obtain this report from: Planner’s Book Service, 122 S. Michigan Ave. Suite 1600 Chicago, IL 60603-6107. Phone: (312) 786-6344, Fax: (312) 431-9985. Bookorder@planning.org.

- ***Community Growth Management*** (video) – This video explains the implementation process for growth management regulations and the relationship among the master plan, capital improvements program, land use regulations and ordinances and land and easement acquisitions
- ***Costs of Sprawl*** – A distinguished panel discusses how sprawling residential and commercial development affects transportation, financial resources, land use, social equity and quality of life. NNECAPA Video Library. Video #98-05 Contact: NH Office of Energy and Planning, 57 Regional Drive, Concord, NH 03301. (603) 271-2155.
- ***Community Planning & Big Box Development*** – Prepare for their impact. Explore alternatives to superstore sprawl that can preserve small-town character and still contribute to economic development. NNECAPA Video Library. Video #98-03 Contact: NH Office of Energy and Planning, 57 Regional Drive, Concord, NH 03301. (603) 271-2155.
- ***Measuring Change in Rural Communities: A Workbook for Determining Demographic, Economic and Fiscal Trends.*** Ray Rasker, Jerry Johnson and Vicky York, Tucson, AZ: Sonoran Institute. This hands-one guide for non-experts helps rural community residents understand the economic, demographic and fiscal trends that shape the place they live. The exercises help identify new opportunities and prepare for new problems.
- ***Guide to Sustainable Community Indicators.*** Maureen Hart, 2nd Edition, North Andover, MA, 1999. This is a guide for assessing the ecological/environmental and socio-economic quality of one’s community. It describes the process of developing, evaluating and using indicators at the community level in a step-by step approach and contains a set of sample indicators, as well as a list of other community sustainability projects, potential data sources, and references. Contact: Hart Environmental Data, P.O. Box 361, North Andover, MA 01845; Tel: 978.975.1988;
- ***Measuring Community Capacity Building: A Workbook-in-Progress for Rural Communities.*** Aspen Institute Rural Economic Policy Program, Queenstown, MD: The Aspen Institute, 1996. This book is written for leaders and citizens who want to improve the ability of individuals, organizations and businesses and government in their community to come together, learn and implement a development agenda. Contact: Publications Office, The Aspen Institute, PO Box 222, Queenstown, MD 21658.
- ***The Growth Management Workbook.*** Pioneer Valley Planning Commission, 1988. This award-winning workbook has stood the test of time, as it is still useful, 12 years after it was first published. It presents a case study of strategic planning, a summary of growth management tools and techniques, and a series of 6 briefing papers on key growth management issues. To order,

- contact: PVPC, 26 Central Ave., West Springfield, MA 01089. Tel: 413.781.6045. <http://www.pvpc.org>.
- ***“Growth, Sprawl and the Bay: Simple Facts About Growth and Land Use.”*** Chesapeake Bay Foundation, Annapolis, MD: Chesapeake Bay Foundation. A Fact Sheet detailing the forces behind sprawl development in the Chesapeake Bay, and the impacts of this land use pattern. Available on-line at: http://www.smartgrowth.org/library/cbf_simplefact.html.
 - ***When Corporations Leave Town: The Costs and Benefits of Metropolitan Job Sprawl.*** Joseph Persky and Wim Wiewel. This book focuses on a central issue in the recently reemerged debate about regionalism and suburban sprawl: What are the costs and benefits to society at large when private firms take advantage of profitable expansion opportunities in the outer suburbs and thus leave vacant sites in older central cities? This study breaks new ground by developing a consistent and comprehensive cost-benefit analysis of this issue. Published by Wayne State University Press. ISBN: 0-8143-2907-1.
 - ***Managing Community Growth – Policies, Techniques, and Impacts.*** Eric Kelly Damian, Praeger Publishers, 1993. “This work represents the first broad evaluation of the implications and impacts of community efforts to manage or limit rapid growth. ...[T]he concern ...is with programs that are expressly designed to regulate the location, timing, or rate of community growth.” Well worth reading for its excellent analyses of the ramifications of public policy.
 - ***“Ahwahnee Principles.”*** Peter Calthorpe, Sacramento, CA: Local Government Commission, 1990. This is a statement of community and regional principles of sustainability and implementation strategy.
 - ***Regional Approaches to Affordable Housing.*** Stuart Meck, APA PAS# 513/514, 2003. Do regional approaches to affordable housing result in housing production and, if so, how? This book answers these critical questions. It evaluates more than 23 programs across the nation by tracing the history of regional housing and planning in the U.S. and defining contemporary “big picture” issues on housing affordability. The report examines fair-share regional housing planning in three states and one metropolitan area, and follows with an appraisal of regional housing funds – a new phenomenon. Also assessed is an incentive program in the Twin Cities region and affordable housing appeals statutes in Massachusetts, Rhode Island, and Connecticut. The study looks at recent private-sector initiatives to promote affordable housing production in the San Francisco Bay area and Chicago. The authors conclude that there is no one best way to address how to provide affordable housing in the U.S. on a regional or multijurisdictional basis. Political structures, institutional capacities, and private and nonprofit interests are too varied for a “one-size fits” all approach. Although existing programs are difficult to evaluate qualitatively, it is clear that a significant gap exists between need and production. In the concluding chapter, the authors propose a set of best practices and strategies that they deem most likely to result in actual built housing. They also list “second best” practices that may offer a reasonable starting point for regions newly confronting the problem of affordable housing. Can be ordered at: PAS; Subscriptions@planning.org.

- ***Innovative State Planning and Regional Approaches.*** Video Tape, 1995. Published by the American Planning Association. Learn about innovations in land-use law, particularly those that deal with regional and mandatory planning. Obtain this resource on-line from PAS at: BookService@planning.org.

Neighborhoods

- ***Neighborhood Planning.*** Bernie Jones, APA Planners Press, 1990. This guide explains how planners and citizens can team up to prepare a coherent and achievable neighborhood plan. It shows what information to collect and where to get it. It explains how to set clear goals and devise strategies to achieve them. In addition, it shows how to package, implement, and update the final plan. Numerous maps illustrate how to inventory environmental features, land use, circulation systems and design features. Can be ordered on-line at BookService@planning.org.
- ***Neighborhood-Based Planning.*** Wendelyn A. Martz, APA PAS# 455, 1995. The concerns of residential neighborhoods are frequently lost in vague comprehensive plans. This report shows how neighborhood-based planning can complement a comprehensive plan. Case studies of five communities show how residents helped shape and implement neighborhood plans that improved their communities. The case studies look at the qualities that made these plans successful, including a shared dialogue between residents and city officials, focused and reasonable goals, and ample financial and technical resources made possible through long-term partnerships with the community. Contact: APA PAS Subscription Orders: Subscriptions@planning.org.
- ***Streets of Hope: The Fall and Rise of an Urban Neighborhood.*** Peter Medoff, and Holly Sklar, Boston, MA: South End Press, 1994. This book describes the revitalization of the Dudley Street Neighborhood in Boston through community empowerment.
- ***Planning To Stay: Learning to See the Physical Features of Your Neighborhood.*** William R. Morrish and Catherine R Brown, Milkweed Editions, 1994. This handbook helps neighborhoods understand their physical surroundings and create a vision for future development and change.
- ***Traditional Neighborhood Development.*** Institute of Transportation Engineers, 1999. Developing streets for traditional neighborhood developments challenges planners and transportation engineers. Streets must accommodate not only automobiles, but also pedestrians, cyclists and transit systems. This book suggests design principles for meeting all these needs. It shows how to use such techniques as “lanes” and shared street space, connectivity, street capacity, pedestrian networks, and visual anchors at the end of streets to enhance community character as well as calm traffic. Can be ordered on-line at: BookService@planning.org.
- ***Village Planning Handbook.*** Bucks County [PA] Planning Commission. This handbook, designed for both municipal officials and residents, provides guidelines for comprehensive plan development as well as ideas for dealing with specific problems and concerns within villages. To obtain this resource contact: Bucks County Planning Commission at Tel: 215.345.3400.

- ***Building Strong Neighborhoods: A Study Circle Guide for Public Dialogue and Community Problem Solving.*** Pomfret, CT: Topsfield Foundation, Inc., 1998. This guide helps organizers use study circles – small-group, democratic discussions – to help people address ways to strengthen their sense of community and build better neighborhoods. To obtain this resource contact the Study Circles Resource Center, P.O. Box 203, Pomfret, CT 06258; Tel. 860.928.2616 or email: scrc@neca.com.
- ***Building Communities From the Inside Out.*** John Kretzmann and John McKnight, Evanston, IL, Center for Urban Affairs and Policy Research, Northwestern University, 1993. This is an extensive guide to identifying and mobilizing community resources. To obtain this resource contact: The Center for Urban Affairs and Policy Research, Neighborhood Innovations Network, Northwestern University, 2040 Sheridan Road, Evanston, IL 60208, Tel: 708.491.3518.
- ***Understanding Design Context.*** Video Tape, 1994. Published by the American Planning Association. Designing a neighborhood's visual character is often the first step in preserving it. Understand how social, economic, and technological changes can affect your community's visual continuity. Obtain this resource on-line from PAS at: BookService@planning.org.
- ***New Directions in Neighborhood Planning.*** Audio Tape, 1997. Learn to develop community partnerships, increase citizen participation, and set short-range goals for immediate solutions. Can be ordered on-line from PAS at: BookService@planning.org.

Community Design

- ***Planning for Community Character*** – How can you identify and protect what makes your community special? Understand the role of character in planning and how to distinguish key community features. NNECAPA Video Library. Video #98-13 Contact: NH Office of Energy and Planning, 57 Regional Drive, Concord, NH 03301. (603) 271-2155.
- ***Understanding the Design Context*** – Defining a neighborhood's visual character is often the first step toward preserving it. Understand how social, economic and technological changes can effect your community's visual character. NNECAPA Video Library. Video #98-13 Contact: Office of Energy and Planning, 57 Regional Drive, Concord, NH 03301. (603) 271-2155.
- ***Non-Residential Developments: Community Character Guidelines.*** Prepared by Nashua Regional Planning Commission. Nashua, NH. August 2000. "...Community character guidelines provide one tool to assist planners with the accommodation of growth in a manner compatible with maintaining the community's character." Building design, access management, off-street parking, public spaces, landscaping, stormwater management, lighting, signs, and service facilities are some of the issues addressed in this document.
- ***Model Non-Residential Site Plan Regulations.*** Nashua Regional Planning Commission, with funding by New Hampshire Department of Environmental Services, June 2002. This document was prepared "to assist

local communities with their site plan review efforts and to ensure new non-residential and multi-family development meets high standards for design and environmental protection. The model regulations incorporate the latest State of New Hampshire requirements for the site plan review process and also incorporates best practices in site design for urban, suburban and rural communities.”

- ***Fundamentals of Urban Design.*** Richard Hedman, APA Planners Press, 1985. This book explains the fundamental tools for achieving a more satisfying built environment. Using more than 100 photographs, the author illustrates the basic components of urban design – context and contrast, preservation, spatial definition, beautification, urban form and building form, and design review. A good introduction for interested citizens.
- ***Aesthetics and Land Use Controls.*** Christopher J. Duerksen, APA PAS # 399, 1986. For many communities, zoning for aesthetics is an idea whose time has come. Yet regulators must balance community demands with project economics. This report looks at buildings that fall within historic areas and for those outside of preservation districts. It also explores view protection, landscaping and tree protection; and regulating signs, satellite dishes, and other forms of outdoor communication.
- ***Appearance Codes for Small Communities.*** Peggy Glassford, APA PAS # 379, 1983. This report looks at municipal design controls used in eight Chicago suburbs. It examines the codes and appearance review procedures; traces the legal framework within which appearance codes must function; and gives advice for communities interested in adopting similar aesthetic regulations.
- ***Designing Urban Corridors.*** Kirk R. Bishop, APA PAS # 418, 1989. Corridor-specific plans can create a sense of order and place in an increasingly cluttered landscaped. These plans integrate well-known regulatory techniques to improve the function, safety, and appearance of corridors. This report shows how to improve commercial roadway corridors and protect scenic roadsides.
- ***“Imagining Cityscapes: The Politics of Urban Development.”*** Bowman, Ann O’M and Michael A. Pagnao, Land Lines, Cambridge, MA: Lincoln Institute of Land Policy, March 1996. To obtain a copy contact: The Lincoln Institute of Land Policy at 113 Brattle Street, Cambridge, MA 02138; Tel: 617.661.3016.
- ***“Landscapes – Managing Change in Chester County 1996-2020 Comprehensive Plan Policy Element”*** Chester County, Pennsylvania Planning Commission,
- ***“Tips for Controlling Strip Development.”*** Ross Moldoff, Planning Commissioners Journal, May 1992. The author provides his thoughts on some lessons he has learned during 12 years as planning director of a New Hampshire town:
- ***Town of Amherst Design Review Board Handbook.*** Amherst, MA Planning Department. To order contact: Planning Department, Town Hall, 4 Boltwood Avenue, Amherst, MA; Tel: 413.256.4040.

- ***Saving Face.*** Ronald Lee Fleming, Rev. Ed., APA PAS #503/504, 2002. Corporate franchise design usually cares little for community character. However, it is possible to preserve franchise identity and still respect neighborhood architectural style and community character. The author examines marketing trends and their effect on design, and the cost and opportunities of good design. Case studies profile communities that have negotiated franchise design successfully. This revised edition includes new photographs, more information on fast-food marketing, and a commentary on federal trademark law. This book concentrates on offering positive examples of what communities and franchises have done working together. This report serves both as a visual inventory of some desired results of design review and as a checklist for actions to be taken to improve the visual environment. Can be ordered on-line from PAS at: Subscriptions@planning.org.
- ***Community Decision Making in Urban Design.*** Video Tape, 1994. Published by the American Planning Association. Discover how communities develop an informed and productive community building process, and learn how to establish policies to guide urban design. Obtain this resource on-line from PAS at: BookService@planning.org.
- ***Community Planning and Big Box Retailing.*** Video Tape, 1995. Published by the American Planning Association. Big box retailers are changing the shape and economy of rural communities. Examine the impacts of big box retailers and explore alternatives to superstore sprawl. Obtain this resource on-line from PAS at: BookService@planning.org.
- ***Design Implementation.*** Video Tape, 1994. Published by the American Planning Association. Communities employ diverse design control techniques. Some use a highly regulated process; others customize design standards on a project-by-project basis. Learn to select the best tools for guiding design in your community. Obtain this resource on-line from PAS at: BookService@planning.org.
- ***Design Review.*** Video Tape, 1995. Published by the American Planning Association. Learn about design review and its place within a community's overall design goals. Review the roles of planning staff and commissioners in this process and the criteria by which projects are evaluated. Includes exercises. Obtain this resource on-line from PAS at: BookService@planning.org.
- ***Preserving and Promoting Community Character.*** Audio Tape, 1999. Prepared by APA. Hear how design contributes to community character and how to establish effective design review systems. Can be ordered on-line from PAS at: BookService@planning.org.
- ***New Urbanism: Toward Architecture of Community.*** Peter Katz, McGraw-Hill, 1994. This book explains the fundamental goals of new urbanism – functional communities that combine economically diverse housing, easy access to work, play, shopping, and school; and efficient transportation. It includes numerous photographs and site plans of acclaimed projects such as Seaside, Florida, and Laguna West, California. Can be ordered on-line at BookService@planning.org.
- ***New Urbanism: Hope or Hype for American Communities?*** William Fulton, Lincoln Institute of Land Policy, 1996. New urbanism offers solutions to

- many problems associated with conventional suburban development. But, there's still skepticism about what new urbanism seeks to achieve and whether it can succeed. This book presents case studies of five new urbanist communities and explores the movement's responsible and economically viable communities. Can be ordered on-line at BookService@planning.org.
- ***New Urbanism: Comprehensive Report and Best Practices Guide***. Robert Steuteville, 2nd Edition, New Urban News, 2001. The editors of *New Urban News* review the mixed-use, new urbanist developments that have appeared across the country. They explain all aspects of this popular building trend, including planning and design; codes, laws, and legal strategies; finance; transit-oriented development; and street typologies. Can be ordered on-line at BookService@planning.org.
 - ***Building Livable Communities: Policymaker's Guide to Transit-Oriented Development***. Judy Corbett and Paul Zykofsky, Center of Livable Communities, 1996. Some planners argue that transit-oriented development is more important than any other kind. This book presents helpful models and resources to create livable transit-oriented communities based on solid economic, social and environmental grounds. The book explains the key elements of good transit-oriented development – mixed land use, strong site design, appropriate densities, and pedestrian facilities. Can be ordered on-line at: BookService@planning.org.

Mapping Resources

- ***Municipal Applications of GIS in NH*** – This video covers the area of geographic information systems (GIS) in a municipal environment, training and support options and additional GIS technical and data resources. Available from NH Office Energy and Planning, 57 Regional Drive, Concord, NH 03301. (603) 271-2155.
- ***GIS Guidebook for NH Municipalities*** – This guidebook is a non-technical introduction to Geographic Information Systems (GIS) and their use by municipal governments in New Hampshire. It provides a primer on important cartographic and geographic concepts underlying GIS technology and its use by cities and towns. The guidebook offers suggestions and additional sources of information to local officials considering or planning a GIS to help them make well-informed decisions and thereby avoid potentially costly mistakes. Available from NH Office Energy and Planning, 57 Regional Drive, Concord, NH 03301. (603) 271-2155.
- ***Site Specific Soil Mapping Standards for Use in Subdivision and Site Plan Review Regulations***. Prepared by OSP, November, 1997. This memorandum provides background on the development of the new soil mapping standards developed by the Society of Soil Scientists of Northern New England and presents model language that can be incorporated into local subdivision and site plan review regulations to update existing soil mapping standards.
- ***GIS Operators Manual***. Volume 2. New Hampshire Department of Environmental Services. January 1999. "This document is intended to

provide the technical details to allow a GIS operator to develop a favorable gravel well analysis from publicly available data coverage's. It is assumed that the reader is familiar with the contents of Volume 1: the FGWA (Favorable Gravel Well Analysis) concept and its terminology, as well as GIS concepts and terminology such as coverages, themes, etc.”

- ***Municipal Applications of GIS in NH.*** Video prepared by OSP. This video covers the area of geographic information systems (GIS) in a municipal environment, training and support options and additional GIS technical and data resources. Available from NH Office Energy and Planning, 57 Regional Drive, Concord, NH 03301.

Other Useful Resources:

- ***Selecting and Retaining a Planning Consultant, February.*** APA PAS #443 - 1993 – Are you thinking of hiring a planning consultant? If yes, this is the guide for you. There are several steps you and your agency should take before hiring a consultant. For instance, deciding why hiring a consultant could be beneficial, finding the “right” consultant, developing a consultant selection process, wading through any legal or insurance issues, and managing the project. You may even want to set up standards by which to rate your consultant once he/she is chosen. PAS Report #433 will guide you through the process and offer helpful hints along the way. A copy of this report is available for review at the NH Office of State Planning, 21/2 Beacon Street, Concord, NH during regular business hours: Monday – Friday 8:00 am to 4:30 pm. You may obtain this report from: Planner’s Book Service, 122 S. Michigan Ave. Suite 1600 Chicago, IL 60603-6107. Phone: (312) 786-6344, Fax: (312) 431-9985. Bookorder@planning.org.
- ***Job of the Planning Commissioner.*** Albert Solnit, 3rd Edition, APA Planners Press, 1987. A popular and practical guide on how to be an effective planning commissioner. Filled with checklists and outlines, it’s both a good introduction and handy reference. Includes criteria for keeping a master plan in working order, lists of tools to guide growth, advice on how to deal with professional staff, and do’s and don’ts of successful public meetings. Can be ordered on-line at BookService@planning.org.
- ***Best of Contemporary Community Planning.*** APA and Lincoln Institute of Land Policy, 2002. A CD-ROM and 3-ring binder with reading materials and trainer’s guide. Designed especially of group training for planning commissioners. This CD-ROM package provides more than 12 hours of instruction. It includes nine sessions on various aspects of community planning. Can be ordered on-line at BookService@planning.org.
- ***Planning Made Easy.*** William Toner et. al., APA Planners Press, 1994. A 3-ring binder and 15-minute video tape. This manual provides help in developing a program to train planning commissioners and zoning board members. It covers the basics of planning, zoning, subdivision regulation and ethics. Organized in modules. Can be ordered on-line at BookService@planning.org.
- ***Journal of the American Planning Association.*** Published since 1925. Quarterly and annual subscriptions. The APA *Journal* reviews developing

- theory and research and evaluates planning trends. Can be ordered on-line at BookService@planning.org.
- ***Land Use Law & Zoning Digest***. Published since 1949. Monthly and annual subscriptions. A helpful periodical on current litigation and recently enacted state legislation on land use and zoning. Includes abstracts of recent local, state and federal court cases on a wide-variety of topics, such as zoning, energy, housing, and environmental regulation. Can be ordered on-line at BookService@planning.org.
 - ***Zoning News***. Published since 1984. Monthly. A four-page monthly newsletter devoted entirely to monitoring trends in land use controls. Can be ordered at: BookService@planning.org.
 - ***New Illustrated Book of Development Definitions***. Harvey S. Moskowitz and Carl G. Lindbloom, 2nd Edition, Center for Urban Policy Research, 1992. This classic standardizes more than 1,800 key terms used in zoning, subdivision, site plan, and environmental ordinances. The definitions are designed to be used directly in ordinances with little or no change. Can be ordered on-line at: BookService@planning.org.
 - ***Statistics Made Simple***. H.T. Hayslett, Jr., Doubleday, 1968. Learn the basic principles and techniques of statistics, such as descriptive and inferential statistics, sampling techniques, classification of data, probability, normal distribution, correlation, and more. Can be ordered on-line at BookService@planning.org.
 - ***How to Conduct Your Own Survey***. Priscilla Salant and Don A. Dillman, John Wiley & Sons, 1994. A helpful “how to” book for communities that don’t have the funds to commission surveys. It translates technical concepts into ordinary language and stresses low-cost techniques. Can be ordered on-line at: BookService@planning.org.
 - ***Administration of Flexible Zoning Techniques***. Michael J. Meshenberg, APA PAS # 318, 1976. This report examines the shift from self-executing to discretionary zoning systems. It describes a variety of flexible techniques, including planned unit development, special permits, overlay zoning, floating zoning, incentive zoning, subdivision exactions, and transfer of development rights. Can be ordered on-line at: BookService@planning.org.
 - ***Flexible Zoning***. Douglas R. Porter, Urban Land Institute, 1988. This book analyzes flexible zoning techniques adopted by seven growing communities. It draws examples from the ordinances of these communities to show how flexible zoning systems handle basic issues of land use, compatibility, density, open space and administrative procedure. Can be ordered on-line at: BookService@planning.org.
 - ***Enforcing Zoning & Land Use Controls***. Eric Damian Kelly, APA PAS #409, 1988. This report addresses administration and enforcement issues of land-use controls. Also includes a variety of sample forms that can be adopted for local use. Can be ordered at BookService@planning.org.

Internet Resources:

(clicking on the links below will take you directly to the site)

Alliance for National Renewal, National Civic League, 1445 Market Street, Suite 300, Denver, CO 80202-1717, Tel: 303.571.4343, Fax: 303.571.4404, Email: ncl@ncl.org, Website: <http://www.ncl.org/anr/>. *ANR is a coalition of over 180 national and local organizations dedicated to the principles of community renewal. ANR offers assistance to communities that want to start community renewal alliances and shares inspiration, ideas, tools, and collaborative processes through conferences, publications, technical assistance, and the World Wide Web.*

Alliance for Sustainable Communities. Annapolis, MD: <http://www.sustainable.org>. *An alliance of citizens, government officials, businesses, educators, and civic organizations conducted public summit meetings and sponsored improvements in the Annapolis area.*

American Farmland Trust: <http://www.farmland.org>. *The AFT works nationwide to protect farmlands from urban sprawl. They can be contacted at: American Farmland Trust, 1200 18th Street, NW, Suite 800, Washington D.C. 20036 Tel: 202.331.7300.*

American Land Conservancy: <http://www.alcnet.org>

American Planning Association, APA: <http://www.planning.org>

Audubon Society of New Hampshire: : <http://www.nh.audubon.org/>

Brookings Institute: <http://www.brookings.org/es/urban/urban.htm>.

Build-Com: <http://www.libertynet.org/nol/build-com.html>. *Build-Com is an email list of a growing network of people involved directly in neighborhood and community organizations or working with public agencies that serve them. Its website provides links and other avenues for information exchange.*

Center of Excellence for Sustainable Development. <http://www.sustainable.doe.gov/>

Center for Livable Communities, 1414 K Street, Suite 250, Sacramento, CA 95814, Tel: 916.448.1198; 800.290.8202, Website: <http://www.lgc.org/center/index.html>. *The Center, a national initiative of the Local Government Commission, helps local governments and community leaders be proactive in their land use and transportation planning and adopt programs and policies that lead to more livable and resource-efficient land use patterns.*

Center for Living Democracy, Brattleboro, VT: <http://www.livingdemocracy.org>. *The Center's mission is to accelerate the emergence of Living Democracy, the broad awakening to the essential role of regular citizens in solving America's toughest problems.*

Census 2000: http://factfinder.census.gov/home/saff/main.html?_lang=en

Chattanooga Visioning, Chattanooga, Tenn: <http://www.sustainable.org>. *Community leaders organized highly participatory visioning process to plan the future for their economically and environmentally depressed mid-size city, a number of initiatives followed. (case study)*

Citizens for New Hampshire Land and Community Heritage:
<http://www.specialplaces.org/>

Citizen Planner Training Collaborative: <http://www.umass.edu/masseptc> (*Located in "Planning Information" and "Planning Resources and Links"*)

CityWeb: An Environmental Design Library, UC at Berkeley, CA:
<http://www.lib.berkeley.edu/ENVI/cityweb.html>.

Colorado Smart Growth Initiative:
<http://www.state.co.us/smartgrowth/download.html>.

Communities by Choice, 427 Chestnut Street, Suite 4, Berea, KY 40403-1547, Tel: 859.985.1763, Fax: 859.985.9063, Email: info@CommunitiesbyChoice.org, Website: <http://www.CommunitiesbyChoice.org>. *Communities by Choice is a national network of communities, organizations and individuals committed to learning and practicing sustainable development. Its website contains extensive resources and case studies.*

Community Association Institute (CAI): <http://www.caionline.org>. *Community Associations Institute is the largest organization supporting community associations in the U.S.*

Conservation Law Foundation: <http://www.clf.org>

Corporation for Enterprise Development (CFED): <http://www.cfed.org>.

Cyburbia: <http://www.cyburbia.org>. *Thirteen pages containing links to U.S. cities and international "Comprehensive Plans," located in "Planning Documents."*

Dialogue to Action Initiative, Website: <http://www.thataway.org/dialogue>. *The Dialogue to Action Initiative seeks to promote the dialogue process by providing a central location on the web for information and resources of interest to the dialogue community as a whole.*

EconData.Net: <http://www.econdata.net>.

Environmental Defense Fund (EDF): <http://www.edf.org>

EPA and National Environmental Publications: <http://www.epa.gov/glnpo/seahome/>

Florida Sustainable Communities Center: <http://sustainable.state.fl.us/>

Gobal Ecovillage Network (GEN): <http://www.gaia.org>

Gobal Recycling Network (GRN): <http://www.grn.com>

GRANITE: <http://www.granit.sr.unh.edu/>

Habitat For Humanity International: <http://www.habitat.org>.

HUD USER-Policy Development and Research's Information Service:
<http://www.huduser.org>.

Institute for Local Self-Reliance (ILSR): <http://ilsr.org> *The ILSR provides technical assistance and information on environmentally sound economic development strategies. It works with citizen groups, governments and private businesses in developing policies that extract the maximum value from local resources.*

International Council for Local Environmental Initiatives (ICLEI), City Hall, East Tower, 8th floor 100 Queen Street West, Toronto, ON M5H 2N2, Tel: 416.392.1462, Fax: 416.392.1478, Email: iclei@iclei.org, Website: <http://www.iclei.org>. *ICLEI is the international environmental agency for local governments. It serves as a clearinghouse on sustainable development and environmental protection polices, programs and techniques, initiates joint projects or campaigns among groups of local governments, organizes training programs, and publishes reports and technical manuals on state of the art environmental management practices.*

Joint Center for Sustainable Communities:
<http://www.usmayors.org/uscm/sustainable/> *This section of the Joint Center's website lists examples of model local codes, ordinances, policies and resolutions related to sustainability currently available through the Center.*

Land Trust Alliance (Forest Legacy Program):
<http://www.lta.org/publicpolicy/flweb.htm#descript>

Millennium Eco-Communities: Resources for Community Action, Website: http://www.ec.gc.ca/eco/main_e.htm. *This initiative, sponsored by Environment Canada, brings together resources for those interested in making a difference in their local community. The site provides information on environmental issues, best practices, tools, tips, and networking opportunities.*

Models of Sustainability, Website: http://www.greensense.com/GR_MOD.HTM. *This website contains a collection of examples of how people are making their visions of sustainability real.*

Mountain Association for Community Economic Development (MACED), 433 Chestnut Street, Berea, KY 40403, Tel: 606.986.2373, Fax: 606.986.1299, Email: info@maced.org, Website: <http://www.maced.org>. *MACED provides opportunities and resources to help citizens build sustainable, healthy, equitable, democratic, and prosperous communities in Kentucky and Central Appalachia. It combines research and public policy analysis with technical assistance and financial investments to stimulate development that benefits low-income people.*

National Audubon Society: <http://www.audubon.org>

National Association of Home Builders: <http://www.nahb.com>

National Charrette Institute (NCI), 321 SW 4th, Suite 800, Portland, OR 97204, Tel: 503.228.9240, Fax: 503.228.2010, Email: info@charretteinstitute.org, Website: <http://www.charretteinstitute.org>. *NCI is a non-profit organization that trains professionals in the Charrette process and facilitates affordable Charrettes for qualifying communities*

National Civic League (NCL), 1445 Market Street, Suite 300, Denver, CO 80202-1728, Tel: 303.571.4343, Fax: 303.571.4404, Email: ncl@ncl.org, Website: <http://www.ncl.org>. *The NCL advocates a new civic agenda to create communities that work for everyone and promotes the principles of collaborative problem solving and consensus-based decision making. Its Healthy Communities Program provides technical assistance, facilitation of the healthy communities process, and leadership training.*

National Housing Institute (NHI): <http://www.nhi.org/>

National Main Street Center: <http://www.mainst.org>.

National Recreation and Parks Association: <http://www.nrpa.org>

National Rural Economic Developers Organizations: <http://www.nreda.org>

National Register of Historic Places Publications:
<http://www.cr.nps.gov/nr/publications>

National Resource Conservation Service, USDA, New Hampshire:
<http://www.nh.nrcs.usda.gov/>

National Trust for Historic Preservation Home Page: <http://www.nthp.org>.

National Land Trust: <http://www.smartconservation.org/>

New England Forestry Foundation:
<http://www.newenglandforestry.org/home/index.asp>

New Hampshire Association of Conservation Commissions:
<http://www.nhacc.org/nhacc.htm>

New Hampshire Association of Regional Planning Commissions:
<http://www.nharpc.org/>

New Hampshire Bicycle/Pedestrian Information Center:
<http://webster.state.nh.us/dot/nhbikeped/>

New Hampshire Cities and Towns: <http://www.state.nh.us/municipal/index.html>

New Hampshire Community Development Finance Authority:
<http://www.nhcdfa.org/home.html>

New Hampshire Department of Resources and Economic Development:
<http://www.dred.state.nh.us/>

New Hampshire Department of Environmental Services: <http://www.des.state.nh.us/>

New Hampshire Division of Historic Resources: <http://webster.state.nh.us/nhdhr/>

New Hampshire Economic and Labor Market Information Bureau:
<http://www.nhes.state.nh.us/elmi/econstat.htm>

New Hampshire Employment Security: <http://www.nhes.state.nh.us/>

New Hampshire Housing Finance Authority: <http://www.nhhfa.org/>

New Hampshire Land & Community Heritage Investment Program:
<http://www.lchip.org/>

New Hampshire Local Government Information Network: <http://www.nhlogin.org/>

New Hampshire Main Street: <http://www.nhcdfa.org/mainstreet.html>

New Hampshire Minimum Impact Development Partnership: <http://www.nhmid.org/>

New Hampshire Municipal Association: <http://www.nhmunicipal.org/Home/>

New Hampshire Natural Heritage Bureau: <http://www.nhdf.org/formgt/nhiweb/>

New Hampshire Resource Conservation & Development Area Councils:
<http://homepage.fcgnetworks.net/ncrcd/index.htm>

New Hampshire State Data Center: <http://www.state.nh.us/osp/sdc/sdc.html>

New Hampshire Office of Emergency Management: <http://www.nhoem.state.nh.us/>

New Hampshire Office of Energy and Planning: <http://www.state.nh.us/osp/>

New Hampshire Preservation Alliance: <http://www.mv.com/ipusers/nhpreservation/>

New Hampshire Wildlife Federation: <http://www.nhwhf.org/>

New Urbanism: <http://www.newurbanism.org/pages/416429/index.htm>

Northern New England Chapter American Planning Association:
<http://www.nnecapa.org/>

PLAN NH: <http://www.plannh.com/>

Planners Network: <http://www.plannersnetwork.org/>

Plan-link Listserve: planner's email – contact OEP at 271-2155 to subscribe

Planners Web: <http://www.plannersweb.com>

Rails-Trails New Hampshire: http://members.tripod.com/~Kenyon_Karl/NH-home.htm

Resource Renewal Institute (RRI), Fort Mason Center, Pier 1, San Francisco, CA 94123, Tel: 415.928.3774, Fax: 415.928.6529, Website: <http://www.rri.org>.
RRI assists governments and other sectors in the implementation of Green Plans, which are long-term, comprehensive environmental strategies.

Right to Know Network: <http://rtk.net/> *This site provides information on how to obtain toxic release inventory information.*

Rivers and Trails Library, National Park Service: <http://www.ncrc.nps.gov/rtca/rtca-bo.htm>

Scenic Conservation: <http://www.scenic.org>.

Sierra Club: <http://www.sierraclub.org>

Smart Growth Network: <http://www.smartgrowth.org>. *Articles located in “case studies” and “library.”*

Society for the Protection of New Hampshire Forests: <http://www.spnhf.org/>

Southern New Hampshire Planning Commission: <http://www.snhpc.org/>

Southern New Hampshire Resource Conservation & Development Area Council (RC&D):
[http://homepage.fcgnetworks.net/ncrcd/Page3\(SouthernNewHampshire\).htm](http://homepage.fcgnetworks.net/ncrcd/Page3(SouthernNewHampshire).htm)

Sustainable Communities Network: <http://www.sustainable.org/>

Sustainable City, PO Box 460236, San Francisco, CA 94146, Tel: 415.285.6106, Fax: 415.437.1645, Email: sustainable@igc.org, Website: <http://www.sustainable-city.org>.
This citywide initiative is dedicated to achieving a sustainable future for San Francisco.

The Enterprise Foundation: <http://www.enerprisefoundation.org>

The Nature Conservancy: <http://www.tnc-washington.org/>

The Transportation Action Network: <http://www.transact.org/>

Transportation Equity Act for the 21st Century: <http://www.tea21.org>.

Trust for Public Land: <http://www.tpl.org/>

Tools for a Sustainable Community: One-Stop Guide for U.S. Local Governments, International Council for Local Environmental Initiatives (ICLEI), City Hall, East Tower, 8th floor, 100 Queen Street West, Toronto, ON M5H 2N2, Tel: 416.392.1462, Fax: 416.392.1478, Email: iclei@iclei.org, Website: <http://www.iclei.org/la21/onestop.htm>.

This section of the ICLEI website identifies resources from the federal government and other agencies (technical assistance, funding, publications, and Internet sites) that can help local governments create sustainable communities.

University of New Hampshire Cooperative Extension:
<http://ceinfo.unh.edu/forestry/documents/nhecosrv.htm>

University of New Hampshire Technology Transfer Center T2:
<http://www.t2.unh.edu/>

Urban Land Institute: <http://www.uli.org>

U.S. Census Bureau: <http://www.census.gov/>

U.S. Environmental Protection Agency, New England, Region 1:
<http://www.epa.gov/region01/ra/sprawl/strength.html>

“Visioning and Strategic Planning”
<http://www.cdinet.com/Millennium?Resource/vision.html>. *Millennium*

Communications Group. Communications as Engagement: Millennium Report to the Rockefeller Foundation.

Webster (NH Government online): <http://www.nh.gov/>

Regional Planning Commissions:

North Country Council, Inc.

The Cottage at the Rocks
107 Glessner Road
Bethlehem, NH 03574-5800
Tel: 444-6303
Fax: 444-7588
Website: <http://www.NCCouncil.org>

Lakes Region Planning Commission

Humiston Building
103 Main Street, Suite 3
Meredith, NH 03253-5862
Tel: 279-8171
Fax: 279-0200
Website: <http://www.lakesrpc.org>

Upper Valley Lake Sunapee Regional Planning Commission

77 Bank Street
Lebanon, NH 03766-1704
Tel: 448-1680
Fax: 448-0170

Southwest Region Planning Commission

20 Central Square, 2nd Floor
Keene, NH 03431-3771
Tel: 357-0557
Fax: 357-7440
Website: <http://www.swrpc.org>

Central New Hampshire Regional Planning Commission

28 Commercial Street
Concord, NH 03301
Tel: 226-6020
Fax: 226-6023
Website: <http://www.cnhrpc.org>

Southern New Hampshire Planning Commission

338 Dubuque Street
Manchester, NH 03102-3546
Tel: 669-4664
Fax: 669-4350
Website: <http://www.snhpc.org>

Nashua Regional Planning Commission

115 Main Street
PO Box 847
Nashua, NH 03061-0847
Tel: 883-0366
Fax: 883-6572
Website: <http://www.nashuarpc.org>

Rockingham Planning Commission

156 Water Street
Exeter, NH 03833-2487
Tel: 778-0885
Fax: 778-9183
Website:
<http://www.nh.ultranet.com/-rpc>

Strafford Regional Planning Commission

259 County Farm Road, Unit 1
Dover, NH 03820-6019
Tel: 742-2523
Fax: 742-7986
Website: <http://www.straftford.org>