

ORANGE MASTER PLAN

ORANGE, NEW HAMPSHIRE

2004

Prepared by the Orange Planning Board

with the assistance of the

Upper Valley Lake Sunapee Regional Planning Commission

ADOPTION OF MASTER PLAN

ORANGE, NEW HAMPSHIRE

The Planning Board of the Town of Orange, New Hampshire, in accordance with the provisions and procedures of RSA Chapter 675:6, including conducting a public hearing on April 28, 2004, does hereby adopt the Town of Orange Master Plan of 2004. The goals and recommendations contained in this Plan are designed to aid the Planning Board and other Town boards and departments in the performance of their respective duties for the purpose of guiding and accomplishing the coordinated and harmonious development of the Town of Orange, New Hampshire.


Date Adopted: September 22, 2004


Orange Planning Board:


Robert Ells


William Fulton


Robert Proulx


Katharine Riley


Scott Sanborn


George Smith


Lyell Smith

ACKNOWLEDGMENTS

The Orange Planning Board wishes to thank the many residents and non-residents who came to the Community Forum, took the time to complete the Community Surveys, and attended the public hearing on the proposed Master Plan.

The Board wishes to extend a special thank you to Jason Rasmussen of the Upper Valley Lake Sunapee Regional Planning Commission for his fine job in researching, writing, and revising the chapters on Transportation, Natural Resources, and Land Use. The Board appreciates his assistance and guidance throughout the entire process of revising the Master Plan.

Orange Planning Board

Robert Ells, Vice Chairman

William Fulton

Robert Proulx, Chairman

Katharine Riley

Scott Sanborn, Selectmen's Representative

George Smith

Lyell Smith

ORANGE MASTER PLAN

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INTRODUCTION

OVERALL VISION FOR ORANGE'S FUTURE

The Orange Planning Board gathered public input on the Master Plan update in order to prepare a plan that reflects our community's collective vision for the future of our town. The overall guideline for the future development of our community expressed by the people of Orange through this Master Planning process can be summed up as follows:

“ Over the next ten years, Orange should remain a rural residential community with a small town atmosphere, protecting its natural and historic resources, preserving its scenic beauty and rural character, sustaining its uncrowded and quiet living conditions, and maintaining those special qualities that make Orange a desirable place to live.”

PURPOSE OF THE MASTER PLAN

In New Hampshire, planning boards are required “to prepare and amend from time to time a master plan to guide the development of the municipality” (RSA 674:1). The overall purpose of this Master Plan is to provide guidelines for the future growth and development of our community. The preparation of an updated Town Master Plan is an opportunity to undertake a comprehensive evaluation of our community's needs and desires as they pertain to the anticipated growth of Orange. It is a consensus-building, planning process which attempts to identify the guidelines for the growth of our town as preferred by its citizens. Without this comprehensive planning process, in a relatively short time, Orange could find that it has lost many of the assets and special qualities that its citizens value and cherish.

PROCESS TO UPDATE THE MASTER PLAN

Under New Hampshire law, the preparation of the Master Plan is the responsibility of the Planning Board.

The process of updating our master plan began in the fall of 2000 when the Planning Board began to generate important background information including a review and evaluation of the 1984 Orange Master Plan by the staff of the Upper Valley Lake Sunapee Regional Planning Commission, a study of the goals accomplished from the 1984 Master Plan, a study of new homes built since 1984, and a study of the ownership of land in Orange. Over the winter of 2001, the Planning Board designed, reviewed and refined a Community Survey which was taken to a well-attended Community Forum on May 23, 2001 to provide citizens with the opportunity to offer opinions and suggestions that were incorporated into the final draft of the Community Survey.

In September, 2001, a total of 318 community surveys were mailed; 231 to residents and 87 to non-resident property owners. Of that total, 145 completed surveys were returned which represents an excellent response rate of 45%. Usually communities have a response rate of only 12% to 25 % for such surveys. The surveys were completed by a good cross-section of the community representing all ages and length of residency and ownership, as well as an equal percentage of residents and non-resident property owners. In early December, all 318 residents and non-resident property owners were mailed a final tabulation of the survey results along with a summary of the many excellent comments and suggestions that were made.

Over the next 18 months, the Planning Board developed the Master Plan chapters on Population, Housing, and Economic Base with the data from the 2000 census. The Board also developed the chapters on Community Facilities and Services and Historic Resources. At the same time, the Board contracted with the UVLSRPC to develop three of the chapters that required extensive technical assistance: Transportation, Natural Resources, and Land Use.

The complete preliminary draft of the Master Plan was put together and distributed to the Planning Board members on January 28, 2004. The Board reviewed, revised and refined the preliminary draft over the next two months.

The Planning Board conducted a public hearing on the draft Master Plan on April 28, 2004. Prior to the hearing, citizens could obtain their copy of the preliminary draft at the Town House, the Canaan Public Library, or by requesting one be mailed or delivered to their home.

After making appropriate amendments and revisions to the document as a result of the input received at the public hearing, the Planning Board adopted the updated 2004 Orange Master Plan on September 22, 2004.

GOALS ACCOMPLISHED FROM THE 1984 MASTER PLAN

Adopted a Zoning Ordinance in 1985.

Adopted a basic Building Code in 1985 and a comprehensive Building Ordinance in 2000.

Expanded and renovated the Town House to include water and toilet facilities.

Adopted a school assessment formula based solely on Average Daily Membership.

Updated the Subdivision Regulations in 1993.

Established a cooperative system for fire protection, ambulance service, and recycling.

Established an in-town system for police services and rubbish removal.

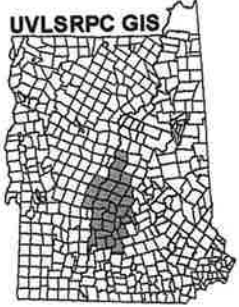
Eliminated most of the misuse in the state park through volunteer efforts of the Friends of Mount Cardigan State Park.

Maintained, in most respects, the rural residential character of the Town.

PRIORITIES FOR IMPLEMENTATION OF THE 2004 MASTER PLAN

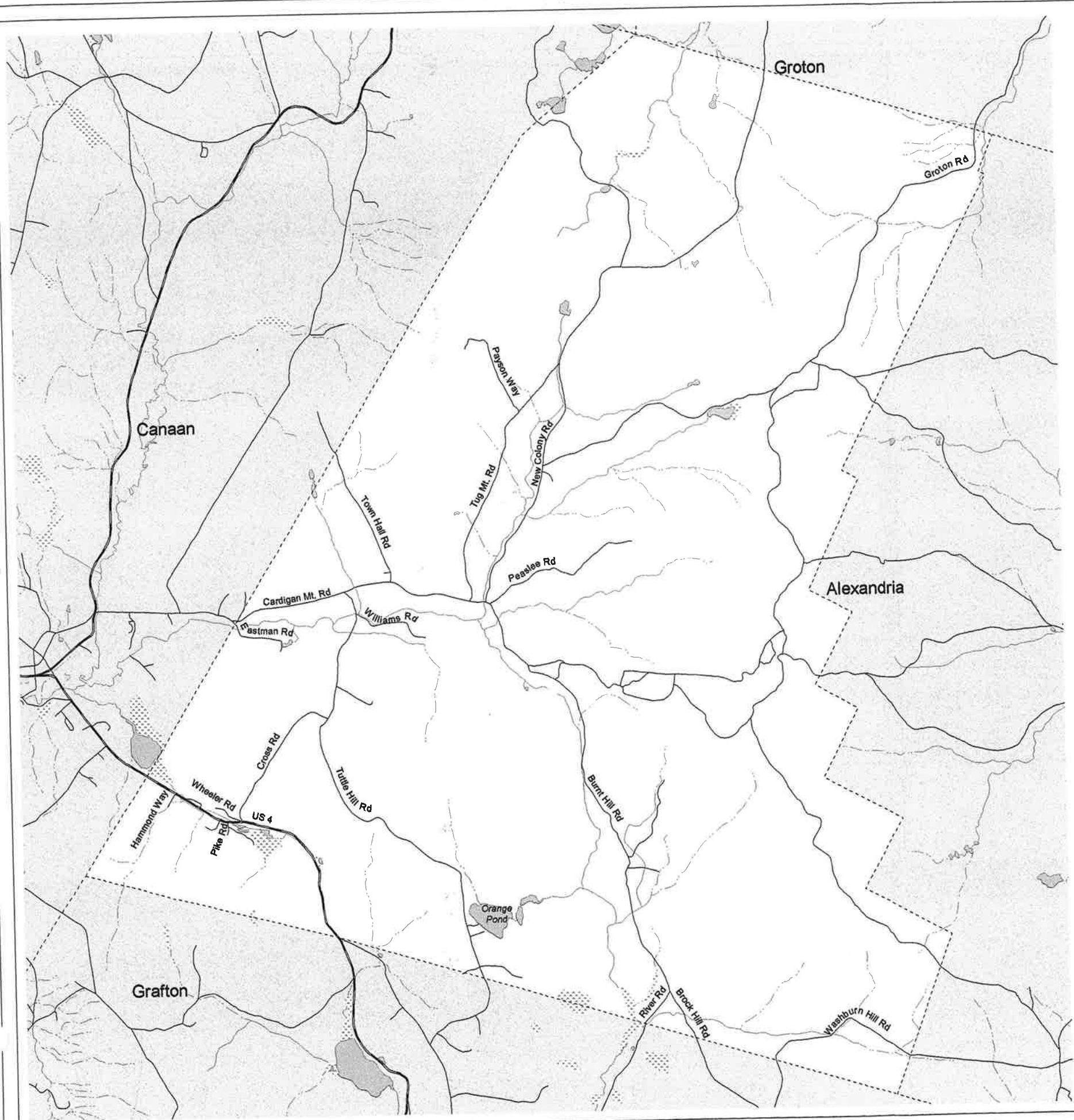
1. Develop and adopt Site Plan Review Regulations for non-residential, commercial, and multi-family residential development.
2. Review and update the Orange Zoning Ordinance and the Orange Subdivision Regulations to ensure that they foster the implementation of this Master Plan and that they protect the best interests of the community.
3. Ensure that new development is not scattered and premature, which would necessitate an excessive expenditure of public money to supply required services.
4. Continue to promote the preservation of open space land through conservation easements, gifts, and purchases.
5. Continue the preservation and maintenance programs for the Orange Town House and for the historical town documents.
6. Develop a policy regarding the issuance of building permits on Class VI roads and private roads.

Orange, NH



Prepared by Upper Valley Lake Sunapee Regional Planning Commission, January 2003.

Base map features from USGS 1:24000 scale Digital Line Graphs; distributed by Complex Systems Research Center, Durham, NH. Road names from E911 source map.



Scale 1:45000



Legend

- | | | | |
|--|-----------------|--|---|
| | Town Boundaries | | Rivers, Lakes or Ponds |
| | Primary Roads | | Areas Shown as Marsh or Swamp on USGS Map |
| | Secondary Roads | | River or Stream |
| | | | Intermittent Stream |

CHAPTER 2

NATURAL RESOURCES

NATURAL RESOURCES

Natural resources define the Town of Orange. Located on the western flank of 3,121 foot Mount Cardigan, Orange is an upland town at the headwaters of both the Baker-Merrimack and Mascoma-Connecticut watersheds. With 5,053 acres of the eastern portion of Town located within Mount Cardigan State Park, a significant portion of Town is protected from development, allowing residents outstanding recreational opportunities.

A significant amount of local business is natural resource-based; therefore, the protection of this resource base is not only important to maintain community character, but also to preserve the local economy.

Current growth pressures in the Upper Valley for housing are significant based on the *Upper Valley Housing Needs Analysis* (Applied Economic Research, 2002), and likely will cause higher levels of future residential development in Orange. Certain measures may need to be taken to provide adequate protection to these highly valued local natural resources. Such measures might include a natural resources inventory and strengthened land use regulations.

Goals

The Orange Planning Board supports a few broad goals to guide future community growth and protect natural resources. Those goals are:

- To preserve the unpolluted, scenic and rural character of the Town;
- To minimize the negative environmental impacts of growth and economic development and to preserve a healthy and biologically diverse natural environment; and,
- To protect the outstanding natural resources in Orange.

Community Survey Results

The Orange Planning Board conducted a community survey to gauge the opinion of residents regarding a variety of land use issues including natural resources. Responses in the survey indicate an overall desire by residents to protect and maintain the rural residential, small-town atmosphere in Orange. Other responses identify certain qualities which make Orange a desirable place to live and/or own property, such as uncrowded and quiet living conditions, scenic and unpolluted natural environment and Mount Cardigan State Park.

The results indicate that most residents identify strongly with certain natural resource features and support measures to protect them through growth management. Respondents indicated overwhelmingly that natural features – such as wetlands;

shorelines of ponds, brooks and streams; steep slope and high elevation areas; and areas to which it would be difficult to provide Town services – should be preserved through development controls.

The results also identified a number of special places or resources that the Town should commit to preserving for future generations. Those places and resources include:

- Orange Pond and the surrounding area;
- Orange Basin;
- Mount Cardigan State Park;
- Cardigan Mountain and the trails;
- Hoyt Hill;
- Tug Mountain;
- Water resources;
- Woodlands (especially the expanse of the undeveloped area in the north part of Town); and,
- Wildlife.

Mount Cardigan

Mount Cardigan rises to an elevation of 3,121 feet. The mountain consists mainly of porphyrite granite with feldspar crystals scattered throughout. There are three peaks that extend roughly north to south, with the main peak at the southern end. The main peak provides extensive views of the surrounding mountain peaks and lakes in all directions, with particularly clear views of the Presidential Range.

The Mount Cardigan State Park was established in 1918 and has expanded to include approximately 7,000 acres of State-owned land in Orange and Alexandria. Numerous trails are maintained on and around Mount Cardigan for hiking and cross-country skiing. Due to the relatively close proximity to urban areas, the quality of trails and views, and the nearby Appalachian Mountain Club (AMC) lodge in Alexandria, numerous visitors are attracted to the park year-round.

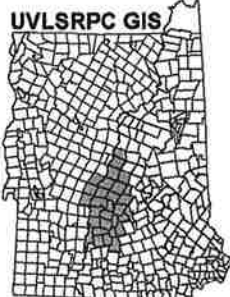
Respondents to the community survey identified Mount Cardigan and its trails as a special place that should be protected.

Map 2 shows conserved lands, including the Mount Cardigan state lands, in Orange.

Forest Resources

The vast majority of the Town of Orange consists of forested lands. A large expanse of undeveloped land exists in the northern part of town, which is essentially isolated by steep terrain and a complete lack of passable roads. A significant portion of this area is forested and supports a natural resource-based economy while providing wildlife habitat and scenic attraction to the area. While forestry should be encouraged as a land use and as an important facet of the local economy, care should be taken to ensure

Orange, NH Conserved Lands



Prepared by Upper Valley Lake Sunapee Regional Planning Commission, January 2003.

Base map features from USGS 1:24000 scale Digital Line Graphs; distributed by Complex Systems Research Center, (CSRC) Durham, NH.

Conserved lands from the Society for the Protection of New Hampshire Forests, 1:24000 scale, updated by UVLSRPC and funded by NHDES REPP, distributed by CSRC, 2002.



Scale 1:45000



Legend			
	Town Boundaries		Rivers, Lakes or Ponds
	Roads		Areas Shown as Marsh or Swamp on USGS Map
	Primary Roads		River or Stream
	Secondary Roads		Intermittent Stream
	Conserved Lands		

that best management practices are used to maintain the quality of the forests and to not detract from the rural character of the Town.

State lands, including Mount Cardigan State Park and Cardigan Mountain State Forest, account for approximately one-third of the Town's land area, and are primarily forested. These areas include a number of special places that residents indicated are worthy of protection in the community survey.

Wetlands and Vernal Pools

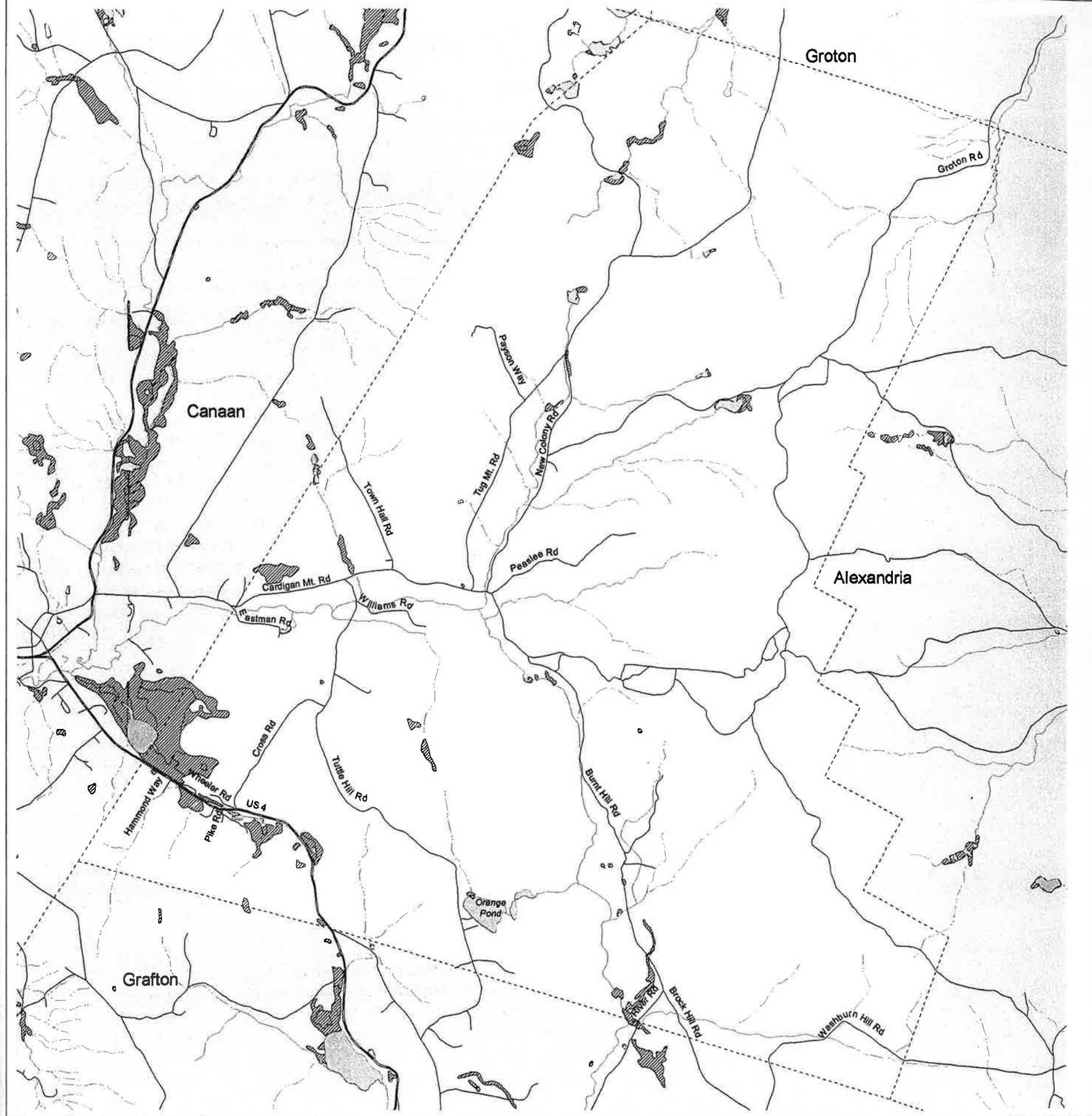
Wetland areas exist in many areas throughout Town (see Map 3). Large wetland areas exist along the US Route 4 corridor and in the southern part of Town along the Orange/Grafton Town Line.

In general, wetlands are beneficial as part of the hydrologic cycle and as wildlife habitat, although the benefits vary with each wetland. They are also fragile and are easily damaged by nearby development activities that might cause erosion, sedimentation and other pollution that could destroy the function of a wetland system. Wetlands can be protected through a combination of state regulation and local protections, such as required buffer areas around significant wetlands.

Vernal pools serve as beneficial habitat for amphibians, reptiles, insects, aquatic invertebrates, birds and other wildlife. They form in spring and early summer when snowmelt and rain collect in depressions and persist until the water evaporates in drier summer weather. While these resources have not been mapped, they serve an important ecological function and should be protected from future development.

Ponds and Brooks

A number of picturesque, relatively unspoiled small ponds and brooks are located in Orange, most notably Orange Pond. While they provide great scenic and recreation opportunities, brooks and ponds also serve an important function in wildlife habitat and flood storage capacity. Floodplain areas serve an important function in flood storage capacity. Any developments within a floodplain area are subject to periodic flood damage and should be discouraged. Respondents to the community survey indicated that these resources and their shorelines should be protected from future development in order to preserve the natural environment. Headwater areas, such as those located in Orange, are highly susceptible to sedimentation and erosion, therefore, it is important to protect stream buffer areas. The State Park and Forest areas protect a significant portion of the headwaters area and help to protect water quality. An inventory of water resources and determination of existing water quality protections, such as conservation easements or other protections, might be beneficial. Land use regulations should be examined also to determine if these brooks are adequately protected.



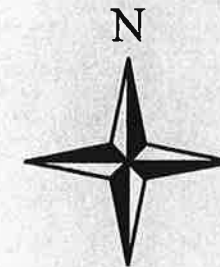
Orange, NH Wetlands



Prepared by Upper Valley Lake Sunapee Regional Planning Commission, January 2003.

Base map features from USGS 1:24000 scale Digital Line Graphs; distributed by Complex Systems Research Center, Durham (CSRC), NH.

Wetlands from US Fish and Wildlife Service, National Wetlands Inventory, distributed by CSRC.



Scale 1:45000



Legend

- | | | | |
|--|-----------------|--|------------------------|
| | Town Boundaries | | Rivers, Lakes or Ponds |
| | Roads | | River or Stream |
| | Primary Roads | | Intermittent Stream |
| | Secondary Roads | | Wetlands |

Groundwater

Orange relies on on-site septic systems and wells, as there are no town-wide public water or sewer facilities available, nor will there be any in the foreseeable future. As such, it is important to protect water quality to maintain the health of residents. Large stratified-drift aquifers are located under the US Route 4 corridor and in the area bordered by Burnt Hill Road to the west and Mount Cardigan State Forest to the north. Map 3 shows the large aquifers that should be protected as a public source for water.

Aquifer recharge areas are important as well as they provide a continued source of water as well as serve as a potential contamination site for the ground water supply. An inventory of these areas, in conjunction with a zoning overlay district, might help to protect the water supply from future contamination.

Wildlife Habitat

Since development is limited to a small portion of town along the existing highway corridors in the southwest and southern portions of Town, a significant area is undeveloped and can support wildlife. A significant portion of Town, approximately 2,500 acres in total, has been identified by the New Hampshire Department of Fish and Game in 1998 as prime deer wintering areas or deeryards. (Map 4 depicts these deeryards.) Among those areas, the Brown Brook deeryard is quite large, nearly 750 acres, and a number of smaller deeryards are clustered in the southwestern portion of Town in the vicinity of Orange Basin and the US Route 4 corridor. These areas are subject to change due to logging and development activity, but given the low population density in Orange, it is reasonable to expect that the Town will continue to harbor prime wildlife habitat into the foreseeable future.

Rare Species and/or Natural Communities

According to the New Hampshire Natural Heritage Inventory, three rare or threatened plant species have been located historically in Orange. The species include bigelow's sedge (*Carex bigelowii*), head-like sedge (*Carex capitata ssp arctogena*), and purple crowberry (*Empetrum atropurpureum*). The New Hampshire Natural Heritage Inventory is a bureau of the Division of Forests and Lands and was established to locate, provide information about and monitor rare, threatened and endangered plant species and ecosystems throughout the State. The Bureau maintains a database of all known rare species and ecosystems, including the three known species in Orange. Survey respondents indicated a desire to protect a variety of natural resources, a component of which would be rare plant species.

Prime Agricultural Soils

Farming is not an important facet of the Town's economy. However, small areas of prime agricultural soils have been identified within Orange, based on Grafton County soils data provided by the Natural Resources Conservation Service. Current agricultural activities are limited and include hayfields and small livestock operations. These

Orange, NH Special Resources



Prepared by Upper Valley Lake Sunapee Regional Planning Commission, January 2003.

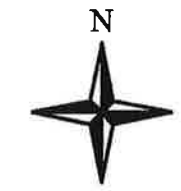
Base map features from USGS 1:24000 scale Digital Line Graphs; distributed by Complex Systems Research Center (CSRC), Durham, NH.

Soil types mapped by USDA Natural Resources Conservation Service, and digitized by CSRC, UNH. Additional soil data provided by Grafton County Conservation District.

Rare species data compiled by NH Natural Heritage Inventory and maintained by CSRC. This data layer contains locational information regarding the distribution of rare or declining native plant and animals and exemplary natural communities in the state.

Aquifers mapped by U.S. Geological Survey in cooperation with NH Department of Environmental Services; distributed by CSRC.

Deer yards digitized by UVALSRPC from paper maps drawn by the New Hampshire Fish and Game Department, 1998.



Scale 1:45000



Legend

- | | | | |
|--------------|---|---------------------------------|--|
| | Town Boundaries | | Stratified-Drift Aquifers |
| | Rivers, Lakes or Ponds | | Rare Species and/or Natural Community* |
| | Areas Shown as Marsh or Swamp on USGS Map | | Deer Yards |
| | River or Stream | Prime Agricultural Soils | |
| | Intermittent Stream | | Prime Agricultural Soils |
| Roads | | | Soils of Statewide Importance |
| | Primary Roads | | Soils of Local Importance |
| | Secondary Roads | | |

* One or more rare species and/or natural community may occur within the shaded area. Due to the sensitive nature of the data, precise locations are not shown.

activities are primarily located in the southern portion of Town – in the vicinity of Orange Pond and the intersection of Brock Hill Road, River Road and Burnt Hill Road. Since there are only a few spots of quality agricultural soils, the Town might consider working towards protecting those areas to allow for continued agricultural activities.

Summary

In summary, respondents to the community survey have indicated a strong desire to protect certain natural resources in order to maintain the rural character of Orange as well as to protect recreational opportunities and the environment. Due to growth pressures in the Upper Valley, Orange can expect an increase in future residential development. Such development, if left unchecked, might destroy some of the valued natural resources. A natural resources inventory might help to identify and map natural resources and help to prioritize resources for protection. Land use regulations should also be reviewed to assess if they adequately allow for the protection of these resources. Site plan review regulations might be desirable in order to control future commercial and multi-unit residential developments. In certain instances, provisions such as protection overlay districts or encouragement of cluster housing developments might be employed to protect these natural resources.

Recommendations

1. Require best management practices to maintain quality forest resources and to minimize environmental damage.
2. Investigate creating naturally vegetated buffer zones (a minimum 100 feet of width) on the shores of all surface waters, including lakes, ponds, streams and wetlands through land use regulations.
3. Consider conducting a natural resources inventory to identify important resource areas and to help to protect those resources from future development.
4. Consider encouraging future development in ways that protect natural and scenic resources, minimize infrastructure expansion and minimize on going maintenance needs. Consider amending the existing Zoning Ordinance to include overlay districts to protect shorelines of all surface waters, hillsides with steep slopes, floodplains, prime agricultural soils and important habitat areas. These resources can be protected while accommodating development in other areas that are better suited.
5. Encourage landowners to consider conservation easements to protect natural resources on privately-owned lands.

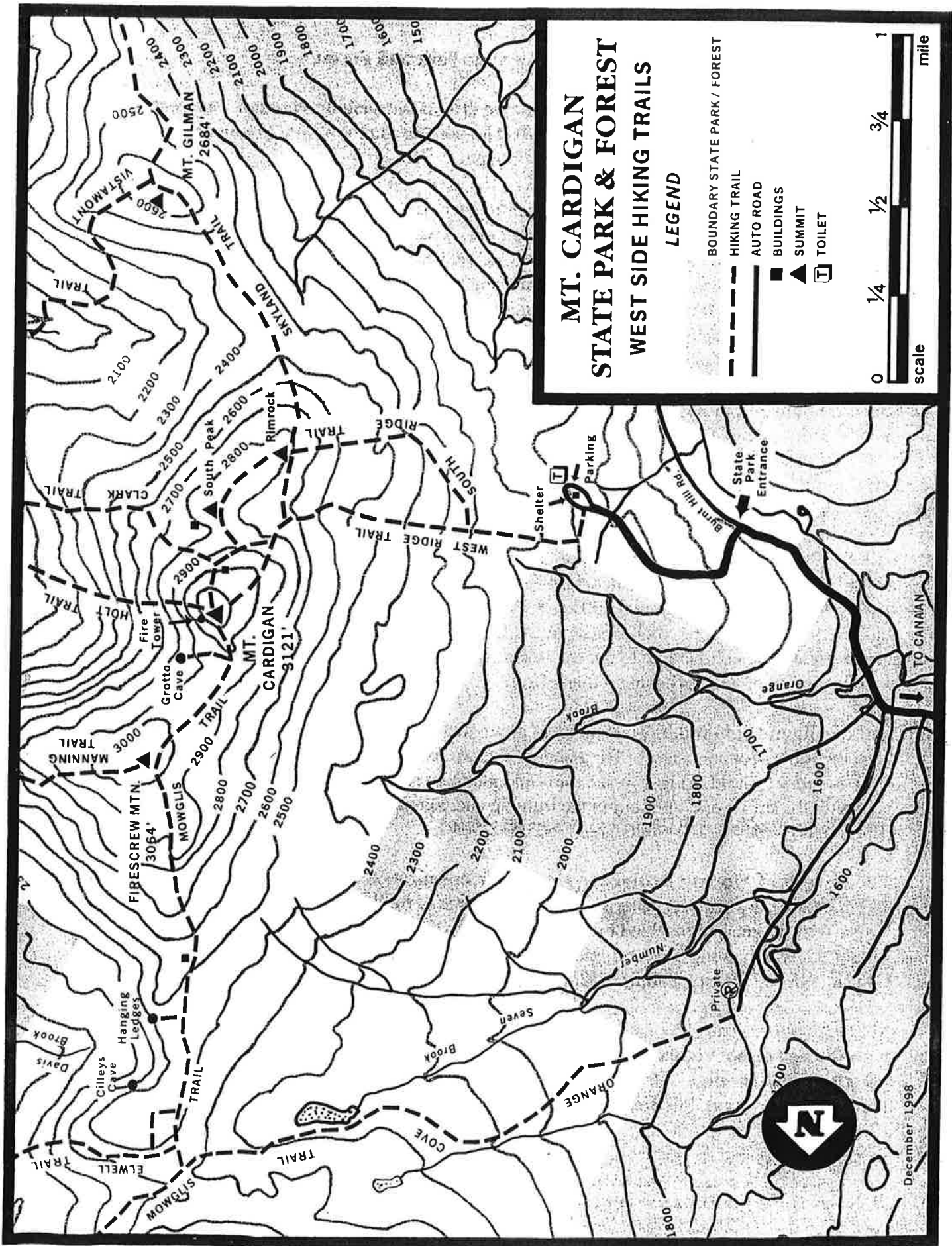
New Hampshire Natural Heritage Inventory
Rare Species and/or Natural Communities in Orange

PLANTS

Common Name	Scientific Name	Federal Listing	State Listing	# Reported
Bigelow's Sedge	<i>Carex bigelowii</i>	-	Rare	* Historical
Head-like Sedge	<i>Carex capitata ssp arctogena</i>	-	Threatened	* Historical
Purple Crowberry	<i>Empetrum atropurpureum</i>	-	Threatened	* Historical

Source: New Hampshire Natural Heritage Inventory, Department of Resources and Economic Development, Division of Forests and Lands (February 2002)

* Historically reported – These species were observed 20 or more years ago, field surveys are needed to confirm species survival



Mount Cardigan State Park and Forest

Mt. Cardigan's 3,121-foot treeless granite summit affords outstanding views of west central New Hampshire, with a panorama that includes Mt. Monadnock and the White Mountains, Camel's Hump in Vermont and Pleasant Mountain in Maine.

The 1.5-mile West Ridge Trail, rises 1,200 vertical feet from the state park on Cardigan's west slope and provides the easiest access to the summit. Trails on the east side of the mountain are much longer and generally steeper. From the east side base at the Appalachian Mountain Club (AMC) lodge to the west side base at the state park is more than 40 miles by road. As there are no shuttles that travel between the two areas, it is especially important to check your map before leaving the summit and select a trail that will lead to your car. Hiking trails are blazed in different colors based on their location on the mountain. Trails on the east side (AMC lodge) are blazed in yellow; trails along the north-south ridge are white; and trails on the west side (state park) are orange. Colors are independent of trail names. The South Ridge Trail, for example, changes from orange to white at Rimrock.

Mt. Cardigan has been a popular mountain destination since the early 1800s, and especially since 1867 when a carriage road was built to the summit at a cost of \$200. In 1855 a devastating forest fire left the treeless, exposed granite mountaintop that persists today. A wooden fire lookout, built in 1904, was replaced by a steel tower in 1924. The state of New Hampshire acquired 700 acres in Orange in 1918 and formed the Mount Cardigan State Reservation. Today the reservation contains more than 5,000 acres in Orange and Alexandria. A big boost came to the park in 1933 when the Civilian Conservation Corps (CCC) built trails and a new entrance road, and extended a telephone line to the fire tower. The reservation has been, and continues to be, the beneficiary of a remarkable civilian effort.

The **Cardigan Highlanders** is a volunteer group that does the trail maintenance necessary to keep the trails open and stable. Highlanders clear trails of brush and downed trees, install and clear waterbars, build bridges, blaze trails and maintain signs. New volunteers are welcome to help with the trail work, and join in the training and comradery that are resulting benefits. (Enfield, NH 03749-0104; telephone: 603/632-5640)

The Friends of Mount Cardigan is a non-profit organization with a mission to promote, protect and maintain the state park base parking and picnic area for the enjoyment of all. Seasonal and longer-term projects are tackled by members to keep the area clean and inviting. Projects are supported by donations and fund-raising efforts. Your support is welcome. (RR #1, Box 199, Canaan, NH 03741; telephone: 603/523-7760 or 523-4274)

Mt. Cardigan is a carry in - carry-out park. Please take your trash, including biodegradeables, out with you and dispose of them properly. There is no drinking water. Camping is not permitted on the mountain. For more information about Mt. Cardigan State Park contact: N.H. Division of Parks and Recreation, PO Box 123, Greenfield, NH 03047; telephone: 603/547-3373.

* * * * *

We endeavor to provide a safe and attractive environment within the limits of our mission to preserve and protect park resources. The necessary knowledge, skill and equipment for a safe visit are your responsibility. We hope you enjoy your visit to New Hampshire's state parks and come back often!

CHAPTER 3

LAND USE

LAND USE

Land use both determines and responds to the character of a community. Existing land use patterns are the physical expression of numerous public and private decisions which have been made in the past. In turn, patterns of existing land use have a substantial impact on the location and type of future growth.

Land use considerations are closely related to virtually every other facet of planning.

If Orange is to protect its natural resources and provide for a high quality-of-life for its citizens, then the capability of Orange's natural resources to accommodate development must be considered. Orange needs to try to strike a balance between responding to development pressures while preserving the natural resources and the rural, small town quality of life treasured by residents.

Goals

The Orange Planning Board supports a few broad goals to guide future community growth and promote desirable land use development patterns. Those goals are:

- To preserve the small town atmosphere in Orange;
- To minimize the negative cultural and environmental impacts of growth; and,
- To protect the scenic and unpolluted natural environment.

Community Survey Results

The Orange Planning Board conducted a community survey to gauge the opinion of residents regarding a variety of land use issues. Responses in the survey indicate an overall desire by residents to protect and maintain the rural residential, small-town atmosphere in Orange. Other responses identify certain qualities which make Orange a desirable place to live and/or own property, such as uncrowded and quiet living conditions, scenic and unpolluted natural environment and Mount Cardigan State Park.

The results indicate that a vast majority of respondents (67 percent) would like to see future development consist of single-family residential development on individual lots. Approximately 13 percent of the responses indicated a desire for small-scale clustered housing with common open spaces preserved. Respondents also indicated overwhelmingly that natural features – such as wetlands; shorelines of ponds, brooks and streams; steep slope and high elevation areas; and areas to which it would be difficult to provide Town services – should be preserved through development controls.

Survey respondents identified special places in Orange that the Town should commit to preserving for future generations, and those include:

- Orange Town House and the surrounding area;
- Orange Pond and the area around it;
- Orange Basin;
- Mount Cardigan State Park and the trails;
- Significant natural features, including Hoyt Mountain, Hoyt Hill and all surface waters;
- Town cemeteries;
- Scenic roads;
- Class VI roads and logging and access roads for recreation; and,
- Historic sites and old farmsteads.

Land Use Change

Timber harvesting, mica mining and agricultural activities were the prominent occupations of residents from the time Orange was incorporated in 1790 to the mid-1900s. Today, mining and agriculture are not common and most developed land area is used for residential purposes. Today, timber harvesting is still a common use of the undeveloped land throughout Orange.

In 1918 Mount Cardigan State Reservation was created, and was expanded in 1921 to include the summit of Mount Cardigan. Today the Mount Cardigan State Park encompasses over 5,000 acres, nearly one-third of the total land area in Orange.

US Route 4 is a regionally important east-west highway that connects Orange to employment and services in the Lebanon-Hanover area. It runs through a sparsely developed area in the southwest corner of Town, thereby minimizing adverse traffic impacts on more developed residential parts of Town. Primary access to the Town is made from Orange Road off NH Route 118 in Canaan as well as on Cross Road off US Route 4. A significant number of visitors to the Mount Cardigan State Park use Orange Road and Cardigan Mountain Road.

Forty-five new houses have been constructed since the last Master Plan was written in 1984. Approximately 56 percent of those were built in the southwestern part of Town in an area roughly bounded by US Route 4, Cardigan Mountain Road and Tuttle Hill Road.

Present Land Use

The vast majority of the land area in Orange is forested at the present time. Most of the development in Town consists of residential land uses. Nearly 34 percent of the total land area has some protection from future development in the form of conservation easements or through State or Town ownership. Most development, residential and otherwise, is located in the southwest portion of town along the existing maintained roadways. The Cardigan Mountain State Park encompasses nearly the entire eastern

boundary with Alexandria and remains protected from development as long as State ownership of the lands continues. The northern part of Town is largely undeveloped with no town-maintained roads to provide access.

Limitations to Development

As an upland community, many of the soils in Orange generally exhibit significant limitations to development due to short distances to bedrock or poor filtration for effluent. According to soils data provided by the USDA Natural Resource Conservation Service, three soil associations predominate:

- *Hermon-Tunbridge-Lyman – Characterized by rugged hills and mountains that have irregular slopes and rock outcrops, and fast-flowing streams with little to no floodplain. Community development potential is limited.*
- *Becket-Monadnock-Hermon – Characterized by smooth hills and uniformly sloping mountainsides in the areas of Becket soils and irregular slopes in the areas of Mondanock and Herman soils.*
- *Tunbridge-Lyman – Characterized by rugged hills and mountains, with irregular slopes and rock outcrops as common, strongly sloped to steep valleys, and fast-flowing streams with little to no floodplain. Community development potential is limited. Erosion and pollution of groundwater are hazards.*
(USDA Natural Resource Conservation Service, Soil Survey of Grafton County Area, New Hampshire)

The soils throughout Orange have moderate to severe limitations for residential development due to the shallow depth to bedrock, steep slopes, and stones and boulders on the soil surface. Since the Town relies solely upon on-site water and septic, the limitations of the soil types found through out Orange will restrict developments, but those limitations will decrease in time as technologies change.

Steep Slopes

Orange contains significant areas of steep slopes (measured as any slope of 15 percent or greater based on local land use regulations). Map #5 shows steep slope areas based on data from the USDA Natural Resource Conservation Service. The largest concentrations of steep slopes are found in Mount Cardigan State Park, Hoyt Hill, Tuttle Hill, the Pinnacle, Mt. Tug and along the US Route 4 corridor. Development on steep slope areas is expensive and requires precautions to provide driveway access, control erosion and install a properly functioning septic system.

Special Limitations to Development	Land Area (Percent of Total)
Lands protected from development (conserved lands)	34
Deer wintering areas	17
Steep slopes (15 % +)	25
Hydric soils	9
Surface water	Less than 1

Source: Conserved lands from the Society for the Protection of New Hampshire Forests; Deer wintering areas from New Hampshire Fish and Game Department; Soil Types from USDA Natural Resources Conservation Service and Grafton County Conservation District.

Note: These figures are not calculated to indicate land areas where more than one special limitations occur together.

Wetlands

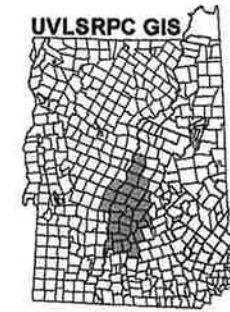
Wetlands can exist for several reasons. The type of wetland may vary based on sub-surface geologic deposits and the location of the water table. Wetlands in New Hampshire tend to be located in areas of poorly drained soils where rainfall is prevented from rapidly infiltrating the soil. Therefore, poorly drained soils are commonly used as an indicator of the location of wetlands. In Orange, the vast majority of wetlands are found along the ponds and brooks throughout Town (see Map #3 in the Natural Resources Chapter). Large wetland areas can be found around Mirror Lake on the Canaan and Orange Town Line and the US Route 4 corridor.

Vernal pools serve important ecological functions, such as wildlife habitat and ground water recharge. Wetland areas, buffers surrounding wetlands and vernal pools should be protected from future development in order to protect the important functions of these resources.

Floodplain and Flood Prone Areas

Floodplains consist of low-lying areas primarily adjacent to rivers and streams that are inundated with water seasonally, thereby raising water levels and flooding the riverbanks. Due to the steep topography, Orange does not have significant areas of floodplain. Development in one part of a floodplain can cause increased risks in other areas. As structures, such as houses, driveways and parking lots, are located in the floodplain, flood levels will be displaced and increase at other locations.

Orange, NH Steep Slopes



Prepared by Upper Valley Lake Sunapee Regional Planning Commission, April 2003.

Base map features from USGS 1:24000 scale Digital Line Graphs; distributed by Complex Systems Research Center, Durham, NH. Road names from E911 source map.

Soil types mapped by USDA Natural Resources Conservation Service, and digitized by CSRC, UNH. Additional soil data provided by Grafton County Conservation District.



Scale 1:45000



Legend

- | | | | |
|--------------|-----------------|--|-------------------------|
| | Town Boundaries | | Rivers, Lakes or Ponds |
| Roads | | | Marsh or Swamp |
| | Primary Roads | | River or Stream |
| | Secondary Roads | | Intermittent Stream |
| | | | Slopes Greater than 15% |

Other flood prone areas include seasonal streams and brooks that flood with water during winter and spring snowmelt and heavy rains. These smaller seasonal brooks typically cause much of the flood damage in northern New England. Development in these flood prone areas should be carefully considered to eliminate or mitigate damage to life and property.

Natural and Cultural Resources

The following section contains information about certain important natural and cultural features as they pertain to land use development in Orange.

Brooks and Ponds

Brooks and ponds are resources highly valued by residents as indicated by the results of the recent Community Survey. Development should be controlled to protect these important resources from erosion and water pollution.

Groundwater

Since Orange relies solely on on-site water supplies for individual properties, protecting that water source is critical. Human activity should be controlled in ways to protect groundwater recharge areas.

Forests

The vast majority of land in Orange is forested. Timber harvesting remains an important employment opportunity for residents. Forested areas also provide natural habitat areas for wildlife and reduce erosion in steep slope and riparian areas. Therefore, it is important to maintain forested habitat throughout the Town as well as to protect certain noteworthy wildlife habitat areas, such as deer wintering areas shown on Map #4 in the Natural Resources Chapter. Development can occur incrementally and fragment important forested areas and/or clear land adjacent to streams, potentially causing significant environmental damage. Care should be taken to preserve large tracts of forested areas and maintain a network of important forested corridors as development pressures increase. The Town should promote and monitor the Best Management Practices for erosion control as well as the New Hampshire Timber Harvesting Laws for all timber harvesting operations in Orange.

Agricultural Lands

Agricultural lands do not play a significant role in the economy of Orange today. However, only limited soils exist in any quality to support agriculture and should be protected to maintain that ability for future generations. Once agricultural lands are developed, they are effectively lost forever.

Soil Types	Land Area (Acres)
Prime agricultural soils	95
Soils of Statewide importance	21
Soils of local importance	789

Source: Soil Types from USDA Natural Resources Conservation Service and Grafton County Conservation District.

Historic Resources

Historic resources are invaluable community assets that should be protected. Orange has a number of historic resources including the Town House, Union Church, Number 5 School House, town cemeteries, Historical Museum and other resources. Development should be accommodated in ways that do not detrimentally impact important historic resources.

Land Use Regulation and Future Growth

Orange has experienced significant population growth and housing development within the past ten years. The population grew 26 percent between 1990 and 2000, outpacing the growth in surrounding Mascoma Valley towns.

Current growth pressures in the Upper Valley for housing are significant as documented in the *Upper Valley Housing Needs Analysis* (Applied Economic Research, 2002), and likely will cause higher levels of future residential development in Orange. Certain measures may be needed to encourage desirable land use development patterns that allow this growth to occur while providing adequate protection to highly valued local resources. Such measures might include strengthened land use regulations.

Lot Size

The Orange Zoning Ordinance establishes one rural residential zoning district to cover the entire area of the Town. Under this regulation, all lots shall be a minimum of 2 acres in size, as site conditions allow. Wetland and steep slope provisions discourage development in certain undesirable locations. However, more stringent requirements (i.e. larger lot sizes) can be employed to encourage more dispersed development patterns in outlying areas, such as the northern part of Town.

Cluster residential development is allowed under current regulations, in which housing structures can be grouped together on smaller lot sizes. This provision encourages more efficient infrastructure systems and preserves open spaces. Currently this provision may be applied to any subdivision in any part of Town. Large subdivisions

have not occurred in recent years, thereby making it difficult to apply the cluster provision on any significant scale in Orange.

In this case, lot size averaging might be considered as a better alternative to clustered development. Lot size averaging would allow the ability to create lots smaller than the current minimum lot size in a subdivision as long as the total number of lots in a subdivision corresponds with the number allowed under minimum lot size.

More targeted, concentrated development may be desirable to create village-like development patterns and reduce the sprawl-like patchwork development that might occur with no lots smaller than 2 acres. Another alternative might be to establish a village zoning district to encourage clustered development patterns. A village district might establish a small geographic area where smaller lot sizes would apply and help to shape incremental developments into a clustered, village-type development pattern.

There is nothing to prevent the State from selling all or parts of the existing Mount Cardigan State Forest, thereby opening up highly valued lands to future development. One way to protect this area from future development indefinitely would be to create a conservation district to protect those areas for future generations.

Location for Future Business Growth

Home business, agriculture and forestry activities are allowed throughout Town. The same mix of permitted commercial activities should be encouraged in future development. Expansion of these land uses should be encouraged in ways that protect the highly valued resources in Orange.

Industrial and other commercial uses are permitted by special exception. Industrial and commercial development is currently present along the US Route 4 corridor. Industrial uses are not encouraged in other parts of Town. Expansion of future business growth should be considered carefully, balancing costs versus benefits for residents and the Town.

Residential

Much of the growth in Orange is residential. Very little commercial land use development has occurred in the recent past. Orange has experienced a high level of residential growth in the past 13 years. Residential growth can be expensive for a community in terms of school expenditures and costs of services. Residential growth can often result in forest fragmentation and sprawl-like development patterns. The Planning Board should consider the impact of residential development relative to the impacts upon the natural environment and on the municipal budget. Development should be accommodated in ways that minimize these costs and maximizes the benefit to the community.

Recommendations

1. Review local land use regulations to assess if goals will be met through the current provisions.
2. Consider possible amendments to the Zoning Ordinance to minimize the negative impacts of future development and protect the natural environment. Such amendments might include adding multiple zoning districts to encourage more concentrated growth in certain parts of Town and more dispersed development in others.
3. Actively encourage clustered development to protect open spaces and promote less built infrastructure, such as access roads.
4. The Planning Board should establish site plan review regulations for non-residential uses and multi-family dwelling units.
5. The Planning Board and Board of Selectmen should jointly develop a policy regarding the issuance of building permits on Class VI and private roads.
6. The Town should promote and monitor the Best Management Practices for erosion control, as well as the New Hampshire Timber Harvesting Laws , for all timber harvesting operations in Orange.

CHAPTER 4

COMMUNITY FACILITIES & SERVICES

COMMUNITY FACILITIES AND SERVICES

Community facilities and services play an important role by contributing to the general welfare of the residents, and by enhancing the quality of life in a community. Naturally, the demand for both facilities and services is far from static. Existing facilities may become inadequate because they are not cared for, or because they do not satisfy the current needs due to increased and often new demands which accompany population growth and changes in lifestyle. To plan for the community facilities and services which will be needed in the future, it is first necessary to determine the extent of existing facilities and services. This section will serve as a review of the current facilities and services.

Orange Town House

The Town House is the only municipal building in Orange. It serves as the primary meeting place for the community. The annual town meetings and all elections are held there, and office and meeting space is provided for the Board of Selectmen, Town Clerk, Police Chief, Planning Board, Zoning Board of Adjustment, Supervisors of the Checklist, and Budget Committee. Community social events are held at the Town House including the annual Christmas Party and pot luck suppers.

The main floor consists of the meeting room, the Town Clerk's office, a kitchen, and two bathrooms. The basement level includes the Selectmen's office and an adjacent meeting room for small groups. The upper floor provides space for the collection and display of historical memorabilia as well as the collection of library books.

In the late 1980's, a major addition was made to the Town House that nearly doubled the size of the meeting room and provided a kitchen and two bathrooms on the main floor, and provided a new office and a small adjacent conference room in the basement for the Board of Selectmen. A handicap entrance has been installed to provide access to the main floor.

A list of needed improvements and repairs to the Town House was compiled in 2002 that included:

- finishing off the back stairway between the meeting room and the basement area
- repairs and restoration work on the foundation (completed)
- installing heat in the small conference room in the basement (completed)
- repairing or replacing the front step (completed)
- repairs or replacement of the upstairs windows
- refinishing the hardwood floors in the meeting room, Town Clerk's office and entrance hallway
- replacing the heater in the main meeting room

The sum of \$6000.00 was appropriated in 2002 to be used for these projects. A capital reserve fund was also established in 2000 which sets aside \$2000.00 each year for emergency or unanticipated repairs to the Town House. As of April 1, 2004, there is \$10,000.00 plus interest in this fund.

The results of the community survey indicated that the Orange Town House and the area surrounding it is the top priority when it comes to “those special places in Orange that the Town should commit to preserving for future generations.”

Educational Services

Orange is a member of the Mascoma Valley Regional School District which includes the towns of Canaan, Dorchester, Enfield and Grafton. Students from Orange attend Canaan Elementary School for grades K-4, Indian River School for grades 5-8, and Mascoma Valley Regional High School for grades 9-12.

Highway Department Services

The citizens of Orange elect a Road Agent for a one-year term in March of each year. The Road Agent has the primary responsibility to oversee the maintenance and improvement of all town roads. The Town contracts out the services for plowing, sanding, salting, and snow removal in the winter season, and contracts out the major maintenance and improvement projects for the summer season. After five years of level funding at \$59,500.00, the highway department appropriation was raised to \$75,000.00 for the year 2004. The major repaving project for most of the paved sections of town roads was completed in 2001, financed through a 5-year bond issued in the amount of \$106,600.00. It will be paid off in January, 2006.

The inventory of the major pieces of equipment for the highway department includes:

- a 2000 F-450 Ford 4X4 truck
- a 9 foot Fisher MC Commercial Plow
- a York rock rake
- a slide-in sander

A capital reserve fund for highway equipment was established in 2001, with \$12,000.00 plus interest presently in this fund.

Police Protection Services

Police services are provided by a part-time police chief on an on-call basis. In 2004, the town appropriated \$15,000.00 for the police department. In 2003, a committee was established to conduct a comprehensive study of the Orange Police Department. The

Orange Police Coverage Study Committee presented an interim report at the 2004 Town Meeting, and it will continue its study during 2004 and prepare a final report with recommendations prior to the 2005 Town Meeting.

Fire Protection Services

Fire protection services are provided by the Canaan Fire Department. In 2004, \$12,500.00 was appropriated, based on a per capita assessment paid to the Town of Canaan.

Emergency Ambulance Service

Emergency ambulance service is provided by the Canaan FAST Squad. In 2004, \$3500.00 was appropriated for this service.

Social Services

Social support services are provided to the residents of Orange primarily through state-assisted and county-assisted programs and by annual direct financial assistance from the Town of \$500.00 to the Grafton County Senior Citizens Council, \$1200.00 to the Visiting Nurse Alliance of Vermont and New Hampshire, and \$300.00 to West Central Mental Health Services. The Council, the Alliance and West Central all provide a wide array of valuable services to the citizens of Orange through their many out-reach and on-site programs.

Library Services

Residents of Orange have library privileges at the Canaan Town Library. In 2004, for the first time, Orange voters appropriated \$4,000.00 to help support the Canaan Town Library. Residents may also check out books, on an honor system, from the collection of library books at the Town House.

Household Rubbish Disposal

Household rubbish is collected each Thursday at curbside from nearly all homes in Orange. However, several homeowners living near the Grafton town line on Burnt Hill Road and Brock Hill Road must transport their rubbish to the Grafton Transfer Station, through a financial agreement between the towns of Orange and Grafton.

Recycling Program

Residents have the opportunity to recycle a wide variety of materials at the Canaan-Orange Recycling Center.

Cemeteries

There are three cemeteries in Orange that are maintained by the town: the Church Cemetery, the Orange Common Cemetery, and the French Cemetery. The Hadley Cemetery, located off Cross Road, is not maintained by the town. In the 1980's, a rehabilitation project was undertaken at the Church Cemetery to create more burial plots. The Church Cemetery is the only cemetery with any significant space available for future use. In 2001, the gates and chain fencing were repaired and restored, and new signs were erected at the three cemeteries.

Recreational Facilities and Services

The dominant recreation facility in Orange is the Mount Cardigan State Park and Forest that provides trails for hiking throughout the year. A picnic area is located at the trailhead parking lot. There is also an extensive network of old logging roads and Class VI roads throughout the town that are used by Orange residents for hiking, cross country skiing, snowshoeing, and snowmobiling.

Property Owned by the Town of Orange

Town House, Mount Cardigan Road, (Map 3, Lot 11), 0.27 acre

Orange Basin Park and Gravel Pit, Mount Cardigan Road, (Map 3, Lot 56), 11.25 acres

Church Cemetery, Mount Cardigan Road, (Map 3, Lot 2), 0.52 acre

Common Cemetery, Tug Mountain Road, (Map 3, Lot 3), 0.38 acre

French Cemetery, Mount Cardigan Road, (Map 3, Lot 100), 0.75 acre

Parcel, Route 4, (Map 1, Lot 34), 0.1 acre

Parcel, on Alexandria town line, (Map 7, Lot 3), 8.9 acres

Results of Community Survey Regarding Public Services

6. How do you rate each of the following public services?

	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Uncertain</u>
Fire protection	76	14	2	40
Police protection	57	25	15	35
FAST Squad	77	11	2	38
Road repair and maintenance	91	27	5	11
Snowplowing	95	7	0	12
Garbage collection	92	9	0	22
Recycling opportunities	60	23	3	31
Management of town government	68	25	11	22
Educational system	25	47	9	39
Recreation	61	20	7	33

CHAPTER 5

HISTORIC RESOURCES

HISTORIC RESOURCES

A plan for the future without a look to the past is incomplete. To enable citizens to understand and appreciate the early history and development of Orange, this chapter presents a brief summary of the history of Orange. Historic and cultural resources play a critical role in the overall quality of life in a community. The historic buildings and sites which have survived from earlier periods are tangible evidence of the community's past residents, places and activities. The preservation of these resources is fundamental to the retention of a sense of place, identity, and continuity. One purpose of this chapter is to design strategies to help protect and preserve Orange's historic and cultural resources for future generations.

EARLY HISTORY OF ORANGE

On February, 6, 1769, King George III of England granted the town to Colonel Elisha Payne, Issac Fellows, and ninety-nine other settlers. It was originally named Cardigan by Governor John Wentworth for James Brudene, Earl of Cardigan, England. The town was first settled in 1773 by Silas Harris, Benjamin Shaw, David Eames, Colonel Elisha Payne, and Captain Joseph Kenney. The inhabitants petitioned several times to have the town incorporated: in 1779 by the name of Bradford or Warwick, in 1783 by the name of Middleton, in 1789 by the name of Liscomb which was crossed out and Orange inserted. In answer to this last petition, the town of Orange was incorporated June 18, 1790. Early residents grew tired of the arguments caused by naming the town after people. The name Orange is said to have been chosen because of large amounts of orange colored ochre found on the mountain.

From the beginning, each grantee paid a tax on his improved land to help pay for the building and repair of highways. In order to raise more money, a tax of one half penny per acre of unimproved land was levied in January of 1791.

When Orange was first settled in this cold rugged terrain, the people grouped together in neighborhoods. Old Colony, which included the Eastman Road and Cardigan Mountain Road, was the seat of the town government. It was here that the settlers built their first school and church, and later a library started in a private home. Colonel Elisha Payne gave to the town the Parade Ground and the Common. The three main cemeteries were located in this particular area.

Some of the industries located here at various times included a gristmill, sawmills, clapboard and shingle mills, a pottery kiln, a brick kiln, and coal kilns where charcoal was made. Other occupations included blacksmiths, coopers, stone cutters, apiarists, painters, carpenters and miners. Most of the residents were farmers who maintained the essential herds of cows, some horses and oxen, hogs, sheep, and geese, ducks and chickens. Besides their sugar orchards, with end products of maple sugar and syrup, they raised crops of hay, potatoes, wheat, oats and corn. Their fruit produce consisted of a few fruit trees, mostly apple, and strawberries, blueberries, and blackberries.

As the town prospered, the people moved out and settled New Colony where the soil was excellent but very rocky. The population became so large in this neighborhood that it could influence a town election in its favor. At the same time, two other substantial neighborhoods were established. The East Neighborhood flourished near the junction of Burnt Hill Road, Brock Hill Road and River Road after the fire of 1855 which burned the mountain, making the clearing of land a much easier chore. The grass came in very lush and green, and in the pastures could be seen cattle, sheep, and deer all grazing together. At one time, twenty-eight farms were operating in this area. Tuttle Hill was also a thriving neighborhood and by 1899, seventeen farms were being operated between Cardigan Mountain Road and the Grafton town line. In the area of Route 4, farming was also carried on, and a slaughter house was located in this neighborhood.

In observance of the Orange Bicentennial in 1969, Alice Hamel and Joanne Moulton researched, compiled, and published A History of Orange, New Hampshire, a comprehensive history of our community. Nearly all of the material in this chapter was taken from their published history.

ORANGE TOWN HOUSE

In 1895, a plot of land (.27 acre) was purchased by the Town for the sum of ten dollars from Edward M. Pettes, and the town house was erected by residents who gave their services. It was planned so that town meetings were held upstairs and the school was located downstairs, with the playground on the Parade Ground near the church. In 1943, a \$1200.00 gift from Arthur A. Williams, Sr. paid for repairs made at the town house and its school. The Town House School was closed in June, 1949, and Orange pupils attended school in Canaan.

In the late 1980's, a major addition was made to the Town House that nearly doubled the size of the meeting room and provided a kitchen and two bathrooms on the main floor, and provided a new office and a small adjacent conference room in the basement for the Board of Selectmen. A handicap entrance was installed to provide access to the main floor.

The Town House is the only municipal building in Orange. It serves as the primary meeting place for the community. The annual town meetings and all elections are held there, and office and meeting space is provided for the Board of Selectmen, Town Clerk, Police Chief, Planning Board, Zoning Board of Adjustment, Supervisors of the Checklist, and Budget Committee. Community social events are held at the Town House including the annual Christmas Party and pot luck suppers.

The results of the community survey indicated that the Orange Town House and the area surrounding it is the top priority when it comes to "those special places in Orange that the Town should commit to preserving for future generations."

TOWN SCHOOLS

In 1870, Orange had seven school districts scattered throughout the township and located in each of the most populated neighborhoods. Each one-room school had a summer and winter term which varied in the number of weeks classes were held.

The following list is an example of a typical school budget in the year 1869: District 1, \$69.06; District 2, \$29.65; District 3, \$55.70, District 4, \$60.22, District 5, \$30.79; District 6, \$28.84; District 7, \$60.65. In 1885, Orange's seven school houses, including the furniture, were valued at \$1,021.00. There were 59 children attending school, with four "pursuing higher grades". The entire amount raised for school purposes in 1885 was \$404.34 with the expenditure coming to \$402.00.

Until 1890, the schools functioned in this way, but by 1891, several schools were closed. At the end of 1897, only schools numbered 1, 3, 5, and 6 were still in operation. In 1925, only two schools continued to hold sessions regularly. Beginning in 1930, the Town House School (Number 1) educated the children of Orange with a few tuitioned to Grafton and some to the high school in Canaan. The Town House School was closed in June, 1949, and Orange pupils became students in the Canaan schools.

Today, only School House Number 5 near Orange Pond still stands, and it is privately owned.

THE MINES AND QUARRIES

Mica mines were located throughout the town of Orange. The Keys Mica Mine was located on Road 1, leading to Dorchester and Groton. Mica was taken from the Keys Mine along with quartz, feldspar, beryl, and tourmaline. The Keys Mine was an open pit mine about fifty feet deep and operated during both World Wars I and II. The other major mine was the Standard Mine, later called the Strain Mine, located off Tug Mountain Road near The Pinnacle. Other mines included the Hoyt Hill Mine off Cardigan Mountain Road, the Bear Mine off Cardigan Mountain Road and a mine run by David Williams off Tuttle Hill Road. Some remnants such as cables, booms and metal equipment can still be found at these mining sites.

THE TOWN POUND

In 1826, the Town voted to build an animal pound which was located between what are now the Druge and Perlowski homes on Cardigan Mountain Road near the Orange-Canaan town line. Rueben Heath bid for the job of building the stone wall around the land and was paid \$15.40 by the Town.

TOWN CEMETERIES

There are three cemeteries in Orange that are maintained by the town: the Church Cemetery, the Orange Common Cemetery, and the French Cemetery. The Hadley Cemetery located off Cross Road, is not maintained by the town. In the 1980's, a rehabilitation project was undertaken at the Church Cemetery to create more burial plots. The Church Cemetery is the only cemetery with any significant space available for future use. In 2001, the gates and chains were repaired and restored, and new signs were erected at the three cemeteries. In 2003, the Barnard family generously donated the sum of \$10,000.00 to be placed in a trust fund. The interest will be used for the maintenance and improvements of the town cemeteries.

THE BAPTIST CHURCH

In the early years, monthly church meetings were held at the home of David Cross in Canaan. On January 12, 1828, twelve members united to become the Freewill and Baptist Church of Canaan and Orange. A church was built in Orange by the members between 1833 and 1835 and at first was named the Freewill and Calvinistic Baptist Church. It was organized with thirteen members and was constructed to hold 150 members. In 1886 it was valued at \$500.00 and had forty members and twenty-five Sunday School members, but no regular minister. Many ministers preached for both Canaan and Orange churches. Services were held each week with baptisms being performed in Orange Brook.

The church was closed permanently by the time of World War II. Old Home Days were enjoyed there each summer from 1934 through 1941. The last one was held in 1947 or 1948 with Rev. D.M. Cleveland, a former minister, as the speaker. In 1969, the church was sold to David and Priscilla Eastman of Enfield by the Baptist Society of Concord. It was remodeled as a summer home. It is presently occupied as a private home.

CILLEY'S CAVE

Cilley's Cave is located on the north side of Mount Cardigan within the state park. It is here that the Cilley family and animals retreated during bad thunderstorms. Town legend has it that the family lived in the cave during the Depression after their home was destroyed by fire.

The following account was published in the Canaan Reporter on September 12, 1884:

Cardigan Cave Great Discovery in Orange, NH

G.W. Cilley while hunting for mica on the 22nd of July last, found at the head of the great basin of Mt. Cardigan, a large cave extending under the cliff 31 ft. and 10 in. It consists of one large room over 30 ft. long and more than 16 ft. in width, with an extreme height of over eight feet. But a short distance from the cave is a chasm spanned by a natural bridge. 300 yds. further on is a sliding rock which yearly slides farther down the mountain, caused by the action of the frost. This huge boulder covered with its growth of moss and ferns and a number of small trees, measures 30 by 23 ft. and is more than 20 ft. in height. 100 yards from this is to be found a wonderful hanging cliff; this cliff is 80 feet long and 34 feet high, the large jets about level to a distance of 26 ft. in the widest place. The sides of this grand old basin presents some of the finest scenery to be found in the state. The above is situated about half a mile from the Groton and Orange road, at the height of the land, and only 30 rods from the Groton and Hebron mountain road. Since discovered, the land has been bought of B.F. Andrew, and will be fitted up for visitors on and after August 25th. Hot tea and coffee will be furnished in the cave, and a guide furnished. We kindly request that no visitors come before date named or on Sunday at any time.

E.R. Hammond & G.W. Cilley
Proprietors

ORANGE HISTORICAL MUSEUM

The Orange Historical Museum was established on the second floor of the Town House in 1976, the year of the nation's Bicentennial. A major part of the bicentennial observance in Orange was collecting, organizing, preserving and displaying the large collection of old photographs and other memorabilia pertaining to the history of Orange. Since that time the Orange Historical Commission has received several donations of local memorabilia that have been added to the collection.

HISTORIC TOWN RECORDS

In 2003, the voters at town meeting established the capital reserve fund for the preservation of the town's earliest records. The preservation program for these two early volumes should begin in 2004, before any further deterioration occurs.

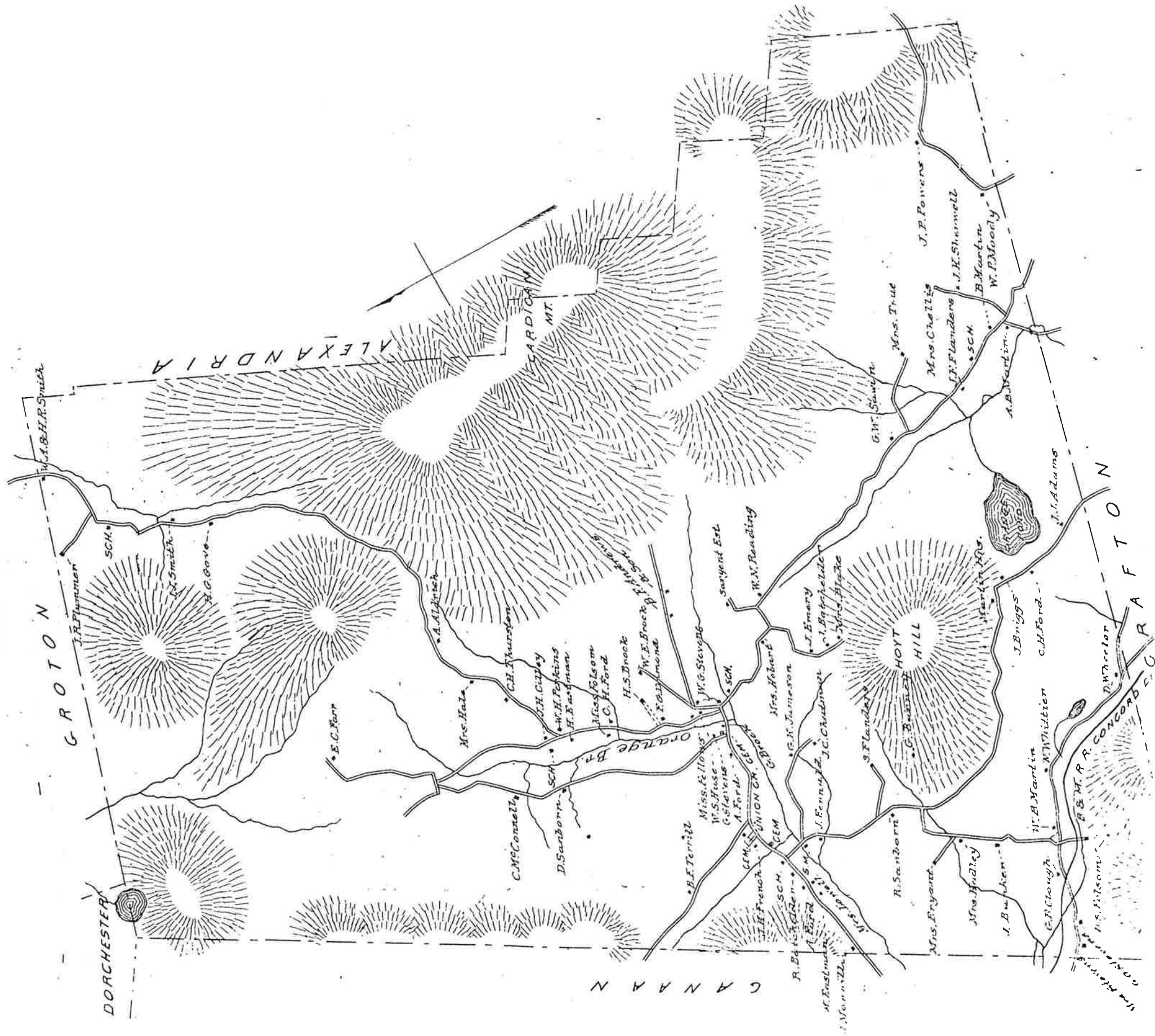
RECOMMENDATIONS

1. Continue to appropriate annually to the Town House Capital Reserve Fund for major repairs and improvements to the town's only municipal building.
2. Explore the possibilities of acquiring additional land adjacent to the Town House in order to preserve the natural setting of that historic area which also includes the church and two cemeteries.
3. Since the Town House has both historical significance and architectural integrity, it should be eligible for nomination to the State and National Registers of Historic Places. A committee should be established to begin the extensive research that would be required to complete the nomination forms.
4. Continue to maintain, improve and promote the Orange Historical Museum, and encourage area residents to contribute local memorabilia to the collection.
5. Preserve Orange's last remaining one-room school, School House Number 5, located near Orange Pond.
6. Develop a map of the town's historic sites, including the hiking trails to reach them.
7. Develop an on-going program for the preservation of the town's early historical records.

ORANGE

1892

GRAFTON CO.



CHAPTER 6

TRANSPORTATION

TRANSPORTATION

Transportation is an essential service that provides for the movement of people, goods, and services both within Town and to places outside of Town. Transportation also provides connectivity between people, various land uses and other communities. Although transportation may be accomplished using a variety of different modes, the automobile is the dominant form of transportation in Orange given its current infrastructure and low population density.

As a small, rural community, Orange maintains a small network of highways that primarily serves local full-time and seasonal residents. Orange is noted, however, as the location of a portion of Mount Cardigan State Forest which generates a significant amount of traffic as visitors drive to access the State Park off Cardigan Mountain Road. US Route 4 (Mascoma Valley Road), the only State highway in Orange, provides the primary access route interconnecting communities along the Mascoma River valley. As the Region grows, traffic volumes are increasing along the Route 4 corridor. The Regional employment center, consisting of Hartford, Lebanon and Hanover, continues to grow. As it does, the more rural areas along the Route 4 corridor are experiencing an increase in residential development that is increasing traffic along Mascoma Valley Road and Town roads.

Goals

The Orange Planning Board supports a few broad transportation goals to guide future community growth. Those goals are:

- To provide a cost-effective transportation system that will meet, to the greatest extent possible, the mobility needs of local residents as well as provide for the safe and efficient movement of goods, services and people;
- To minimize the negative impacts of the transportation system on the natural and cultural environment;
- To improve the Town's road maintenance and reconstruction program; and,
- To preserve the rural character of the Town.

Community Survey Results

The Orange Planning Board conducted a community survey to gauge the opinion of residents with a variety of land use issues including transportation. Responses in the survey indicate an overall desire by residents to protect and maintain the rural residential, small-town atmosphere in Orange. Other responses identify certain qualities which make Orange a desirable place to live and/or own property, such as uncrowded and quiet living conditions, scenic and unpolluted natural environment and Mount Cardigan State Park.

The results indicate that most residents are satisfied with the transportation system, including road repair, maintenance and snowplowing services. Related to transportation, two particular resources were identified as special places worthy of preserving: scenic roads and all class VI roads for recreation.

Transportation System

Roadway classification. The public road system in Orange totals 17.3 miles. Of that network of public roads, 12.2 miles (71%) are maintained by the Town, 3.8 (31%) of which is paved and 8.4 gravel (69%). See Table 1 for a breakdown of roadway miles by classification.

All public roads are broken into seven different highway classifications per RSA 229:5 as outlined below.

- A. Class I. Primary State Highways consist of all highways on the primary State highway system, except for those segments of certain highways within the urban compact section of cities and towns listed in RSA 229:5, V. State maintained.
- B. Class II. Secondary State Highways consist of all highways on the secondary State highway system, except for urban compact sections. State maintained.
- C. Class III. State Recreational Roads consist of all roads leading to and within State reservations designated by the legislature. State maintained.
- D. Class III-a. Boating Access Roads provide public access to any public water in the State. State maintained.
- E. Class IV. Urban Compact Section Highways consist of all streets and highways within compact sections of cities and towns listed in RSA 229:5, V. Municipally maintained.
- F. Class V. Town or City Roads and Streets consist of all highways which the municipality has the responsibility to maintain regularly, except for those within compact sections. Municipally maintained.
- G. Class VI. All other existing public ways including all highways discontinued as open highways and subject to gates and bars and all highways that have not been maintained and repaired by the municipality in suitable condition for travel for 5 successive years or more. Unmaintained.

Table 1 outlines roadway miles based on this highway classification system. The number shown for class VI roads reflects the information available through the current NHDOT road inventory database.

Roadway Classification	Roadway Miles
Class I. Primary State Highways	1.9 miles
Class II. Secondary State Highways	1.8 miles
Class III. State Recreational Roads	1.2 miles
Class III-a. Boating Access Roads	0 miles
Class IV. Urban Compact Highways	0 miles
Class V. Town Roads and Streets	12.2 miles
Class VI. Unmaintained Roads	10 + miles

Source: New Hampshire Department of Transportation.

Road conditions. The Town's roads are generally maintained in good condition. A large percentage of residents are generally pleased with the repair and maintenance of Town-maintained roads, as indicated in the Community Survey. Sixty-eight (68) percent of respondents indicated that road repair and maintenance are "good" and twenty (20) percent indicated they are "fair". Eighty-three (83) percent indicated that snowplowing services are "good".

Road maintenance costs are an important consideration in most municipalities as the expense to operate a highway department is typically a large percentage of a community's annual budget. As roadway reconstruction projects are very expensive, maintaining roads in a consistent good condition to prevent severe deterioration can help to keep the costs down.

The Town of Orange should consider using a pavement management system such as Road Surface Management System (RSMS). An RSMS consists of a computer software program made available through the UNH Technology Transfer Center that is used in managing municipal highways. Through the RSMS process, a road inventory is performed, the data are added to the software program and analyses are then performed that help to prioritize roadway improvements and to budget for repairs. The Upper Valley Lake Sunapee Regional Planning Commission is available to assist member communities with RSMS data collection and computer database development.

Wider, straighter and flatter roads can adversely affect natural and scenic resources. A minimum travel surface width of 18 feet on local roads, 20-24 feet for collector roads are allowed under Orange Subdivision Regulations. According to AASHTO's Guidelines for Geometric Design of Very Low-Volume Local Roads, the recommended total roadway width, including traveled way and shoulders, for both minor and major access roads is 18 feet for design speeds up to 40 mph (Washington, D.C., AASHTO, 2001).

Scenic roads. Any road other than a class I or II highway may be designated as a scenic road by town meeting vote per RSA 231:157. Designated scenic roads enjoy certain protections designed to preserve the scenic qualities of stonewalls and larger trees within the public right-of-way along these scenic corridors. These resources serve as defining features of our New England vernacular; stonewalls and trees add to the aesthetics of the community and contribute to the rural character of the Town. Presently, 5.15 miles of Tuttle Hill Road enjoys this protection as a scenic road.

Bridges, culverts and drainage. Bridges and culverts are important structures providing access over surface water and drainage features. If damaged, they can potentially cut off or delay emergency vehicle service to the Town or a residential area. Those locations that are accessed by only one route over a bridge or large culvert without alternate routes are most susceptible. It is particularly important that these structures be built of appropriate minimum dimensions to accommodate at least 25-year storm events and be maintained in good structural condition.

Impervious surfaces including roads, driveways and parking lots can adversely affect surface waters. Orange Subdivision Regulations include a provision encouraging roadway and site drainage to be diverted directly into existing watercourses.

Stormwater is an important issue relative to site development and roadway/driveway design and maintenance. To maintain roads in good condition, it is imperative to drain water off roadways. Once stormwater is appropriately drained off roadways, it is also important to manage it so that it does not create pollution problems in adjacent surface waters. Roads are a primary source of nonpoint pollution in our waterways. Pollutants from roadways can include sediments such as sand, petroleum products and salt. In residential areas, lawns, failed septic systems and driveways can also contribute to pollutants in drainage. Best Management Practices (BMPs) can be implemented by the Town to maintain good water quality and to minimize flood damage to Town infrastructure. Those BMPs might include such things as vegetated buffer zones around surface waters, drainage basins that minimize erosion and allow for sediments to settle out and slope stabilization methods.

Based on information in the New Hampshire Department of Transportation Ten-Year Transportation Improvement Program, the bridges in Orange appear to be in good structural condition. No bridges in Orange are listed on the State Red List, a list of potentially or known deficient structures.

Access to highways and roads. Access points along highway and road corridors have major impacts upon safety and roadway capacity. Too many, uncoordinated curb cuts and/or driveways can cause high accident situations or other safety hazards. Improperly designed and constructed accesses could cause adverse harm to the adjacent roadway and to the health and safety of Town residents and to the traveling public. Therefore, accesses should be designed, built and maintained in the best way possible to provide access to sites and to minimize potential problems.

The New Hampshire Department of Transportation regulates access by issuing driveway permits for all residential driveways, commercial entrances and new subdivision roadways along Class I and II highways. The State's design requirements indicate that two driveways are permitted for one site unless highway frontage exceeds 500 feet. Additionally, the maximum width of any access should not exceed 50 feet, driveway turn radii should not exceed 50 feet, and that driveway grades should slope away from the highway to the existing ditch line.

The Town of Orange currently has driveway regulations through the Orange Building Ordinance. However, RSA 236:13-V authorizes planning boards to adopt driveway regulations to require a permit for all driveways, entrances or exits to public ways under municipal jurisdiction. Driveway regulations are based on safety issues such as adequate site distances, maximum grade, minimum and maximum width requirements and proper drainage. In most communities, after the planning board has developed and adopted driveway regulations with standards for these areas of concern, the road agent administers the driveway permit system with appeals to the planning board. All new

access points should be given careful consideration in driveway regulations in order to maintain and preserve the health, safety and general welfare of the Town.

Impact of developments. Major subdivisions, multi-unit housing developments or commercial developments can have a significant impact upon the community in terms of increased traffic volumes and/or weight loads on Town roads and bridges. Such developments also increase the demand for Town services, pressuring the Town to increase annual expenditures to meet the new demands. Any large development proposal should be closely evaluated for its likely impact on existing infrastructure and to determine if it might meet the scattered and premature clause in RSA 674:36-II, a. In doing so, large development proposals should be judged to assure that the safety of the public will not be at risk, and that the Town's budget will not be overburdened by the needed increase in services.

Traffic volumes. Traffic volumes in Orange have increased along US Route 4 and on local roads during the last 10 years. The table below indicates the traffic volume growth at six locations throughout Town.

Table 2. Average Daily Traffic (ADT) volumes at select locations in Orange

HIGHWAY	LOCATION	1994 ADT	1998 ADT	2001 ADT	% GROWTH 1994-1998	% GROWTH 1998-2001
US 4	AT ORANGE/CANAAN TL	2300	2400	2835	4	18
US 4	AT ORANGE/GRAFTON TL	1900	2000	NA	5	
EASTMAN RD	OVER ORANGE BROOK	80	90	122	13	36
TUTTLE HILL RD	OVER ORANGE BROOK	100	120	124	20	3
ORANGE RD	OVER ORANGE BROOK	230	240	257	4	7
ORANGE RD	OVER FORD BROOK	60	80	51	33	-36

Source: New Hampshire Department of Transportation and Upper Valley Lake Sunapee Regional Planning Commission.

Commuting patterns. Most residents commute out of Town to work. In 2000, over 97% of Orange's working residents commuted out of Town to work, with most commuting to Lebanon, Hanover and Canaan. Town services, natural resource extraction and home occupations provide the most of the few jobs available in Orange. The following table summarizes the commuting patterns in Orange based on 2000 U.S. Census data.

Table 3. Commuting activity of residents of the Town of Orange in 2000.

Number of Residents Commuting Out of Town for Work 2000	150
Commuting Rate Out of Town 2000	97.40%
2000 1st Most Common Commute to	Lebanon
2000 2nd Most Common Commute To	Hanover
2000 3rd Most Common Commute To	Canaan
Number of Residents Working in Town 2000	4
Percentage of Residents Working in Town 2000	1.34%
Number of Non-Residents Working in Town	7
Percentage of Non-Residents Working in Town	63.63%
2000 1st Most Common Commute From	Newbury, VT
2000 2nd Most Common Commute From	Lyme
2000 3rd Most Common Commute From	Landaff

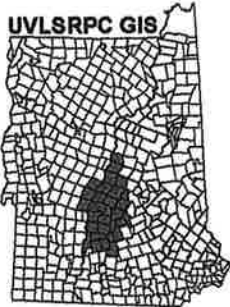
Source: 2000 U.S. Census

Recommendations

1. Maintain existing roadways and bridges in consistent, good working condition and not allow the structures to deteriorate necessitating costly rehabilitation or reconstruction.
2. Amend current road standards in the Subdivision Regulations to encourage narrower roadway widths that protect scenic resources and discourage speeding.
3. Encourage the proper design, construction and maintenance of roadways and bridges to protect natural and scenic resources.
4. Encourage naturally vegetated buffers (a minimum 100 feet of width) on the shores of all surface waters, including lakes, ponds, streams and wetlands. Discourage impervious surfaces, such as roads or driveways, in these shorelands.
5. Encourage adequate ditching methods and sizing of culverts to facilitate effective roadway drainage of stormwater. Bridges and culverts should be of adequate size and minimum capacity to withstand a 25-year flood. Ditches should be constructed and maintained as to facilitate effective stormwater drainage while minimizing water flow speeds to reduce erosion and to allow maximum penetration into the soil.

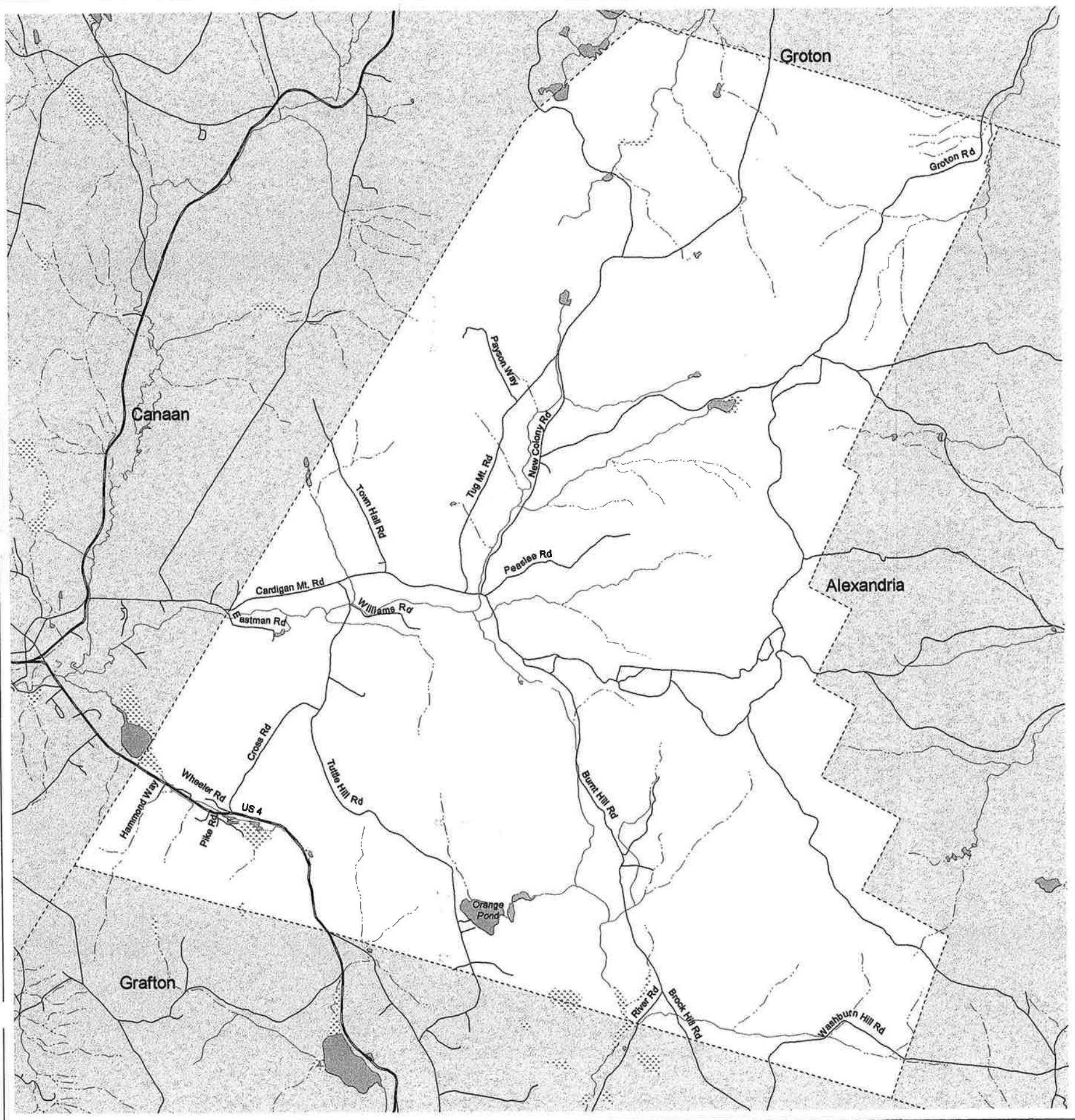
6. Continue to employ dust control measures on dirt roads to reduce negative impacts to adjacent properties and water quality.
7. Encourage good driveway design and construction. The Planning Board might consider adopting driveway regulations that considers standards for emergency vehicle access, drainage, site distances and grade.
8. Empower the Town Planning Board to impose off-site improvements for developments determined to have a significant impact upon Town infrastructure. The Town must take certain steps before off-site improvements can be imposed on developers following the NH Supreme Court's decision in the Simonsen v. Derry case. In order to do this, the Town must have an up-to-date Master Plan, be authorized to and adopt a capital improvement program that meets statutory requirements and adopt an impact fee ordinance.
9. Consider encouraging future development in ways that protects natural and scenic resources, minimizes infrastructure expansion and minimizes on-going maintenance needs. The Planning Board might consider amending the existing Zoning Ordinance to include overlay districts to protect shorelines of all surface waters, hillsides with steep slopes, floodplains, prime agricultural soils and habitat. These resources can be protected while accommodating development in other areas that are better suited.
10. Encourage the preservation of old logging, access and class VI roads for recreational use.
11. Continue to research, identify, and map all Class VI roads in Town.
12. Develop a policy regarding the issuance of building permits on Class VI and private roads.

Orange, NH



Prepared by Upper Valley Lake Sunapee Regional Planning Commission, January 2003.

Base map features from USGS 1:24000 scale Digital Line Graphs; distributed by Complex Systems Research Center, Durham, NH. Road names from E911 source map.



Scale 1:45000



Legend

- | | | | |
|--------------|-----------------|--|---|
| | Town Boundaries | | Rivers, Lakes or Ponds |
| Roads | | | Areas Shown as Marsh or Swamp on USGS Map |
| | Primary Roads | | River or Stream |
| | Secondary Roads | | Intermittent Stream |

TOWN WARRANT
STATE OF NEW HAMPSHIRE

To the inhabitants of the town of Orange, in the county of Grafton in said state, qualified to vote in town affairs.

You are hereby notified to meet at the Town House in said Orange on Tuesday, the 6th day of March, 1973, at four o'clock in the afternoon, to act upon the following subjects. The polls to remain open until nine p.m.

ARTICLE 35. To see if the Town will vote to discontinue, subject to gates and bars (as covered in Public Law 238.2) the long unused part of Road 66 northwest of the residence of Robert Terhune.

ARTICLE 36. To see if the Town will vote to discontinue, subject to gates and bars (as covered in Public Law 238.2) the long unused part of Road 65 (the so-called "Cumings Road") north of the George Bruns camp.

ARTICLE 37. To see if the Town will vote to discontinue, subject to gates and bars (as covered in Public Law 238.2) the long unused part of Road 64 east of the new log cabin built in 1972 by Charles Neily.

ARTICLE 38. To see if the Town will vote to discontinue, subject to gates and bars (as covered in Public Law 238.2) the long unused left fork of Road 62 (the so-called "New Colony Road") which runs north from the residence of Charles Morris toward Derby Pond.

ARTICLE 39. To see if the Town will vote to discontinue, subject to gates and bars (as covered in Public Law 238.2) the long unused spur from Road 61 which runs northeast from the residence of Clifford Ells to the foundation of a house formerly owned by a Mr. Rosenfield.

ARTICLE 40. To see if the Town will vote to affirm the gates and bars restriction imposed in the year 1921 on that section of Road 62 (New Colony Road) between the end of the blacktop northeast of the two residences owned by Colin Gunn and the Groton Town Line near to Sculptured Rocks.

By petition of ten voters of the Town, the following article:

ARTICLE 41. To see if the Town will vote to reopen, the steep hill portion of the cross road, otherwise known as the Turnpike Road. A portion which extends from the junction with Tuttle Hill Road down the cross road in a southwesterly direction 1/10 of a mile to the bottom of the hill.

ARTICLE 42. To hear the reports of agents, auditors and other officers heretofore and pass any vote relative thereto.

ARTICLE 43. To transact any other business that may legally come before the meeting not included in the warrant.

ARTICLE 44. The polls shall not close earlier than nine o'clock in the evening.

Given under our hand and seal this 1st day of February in the year of our Lord Nineteen Hundred and Seventy Three.

OSWALD W. HAMEL
ARCHIE L. EASTMAN
GWYNNE A. PROSSER

Selectmen of Orange

CHAPTER 7

POPULATION

POPULATION

An analysis of population trends and characteristics, and a projection of future population, is one of the most important elements of the master planning process. Any significant changes in the population will, consequently, affect land use patterns, the town's economic base, and local demand for housing, transportation, human services, and community facilities. This section will look first at overall population trends, second at the composition of the population, and third at the future population of Orange.

Town of Orange Historical Population Trends

1786	80
1790	131
1800	203
1810	229
1820	298
1830	410
1840	463
1850	451
1860	382
1870	340
1880	335
1890	245
1900	213
1910	176
1920	166
1930	99
1940	109
1950	82
1960	83
1970	103
1980	197
1990	237
2000	299

2000 Census Data for the Five Mascoma Valley Towns

Since 1990, Orange has had the largest percent increase in population .

Orange	(+62)	+26.2 %
Grafton	(+215)	+23.3 %
Enfield	(+639)	+16.1 %
Canaan	(+274)	+9 %
Dorchester	(-39)	-10 %

Town of Orange – 2000 Census

Total Population: 299

<u>Sex and Age</u>	<u>Number</u>	<u>Percent</u>
Male	157	52.5
Female	142	47.5
Under 5 years	21	7.0
5 to 9 years	22	7.4
10 to 14 years	24	8.0
15 to 19 years	16	5.4
20 to 24 years	7	2.3
25 to 34 years	41	13.7
35 to 44 years	65	21.7
45 to 54 years	49	16.4
55 to 59 years	13	4.3
60 to 64 years	13	4.3
65 to 74 years	15	5.0
75 to 84 years	12	4.0
85 years and over	1	0.3
Median age (years)	38.3	
18 years and over	224	74.9
Male	114	38.1
Female	110	36.8
21 years and over	213	71.2
62 years and over	34	11.4
65 years and over	28	9.4
Male	12	4.0
Female	16	5.4

POPULATION PER SQUARE MILE

<u>Town</u>	<u>Square Miles</u>	<u>Population Per Square Mile</u>			
		<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Orange	23.08697	4.46	8.53	10.27	12.95
Canaan	53.30683	36.07	46.07	57.12	62.26
Enfield	40.29836	58.19	78.79	98.74	114.60
Grafton	41.60330	8.89	17.76	22.19	27.35
Dorchester	44.59477	3.16	5.47	8.79	7.92

RESULTS OF COMMUNITY SURVEY REGARDING POPULATION

3. Twenty years in the future, I would like Orange to have a:

- 10 a. smaller population (7%)
- 70 b. same population (49 %)
- 61 c. slightly larger population (43 %)
- 1 d. much larger population (1 %)

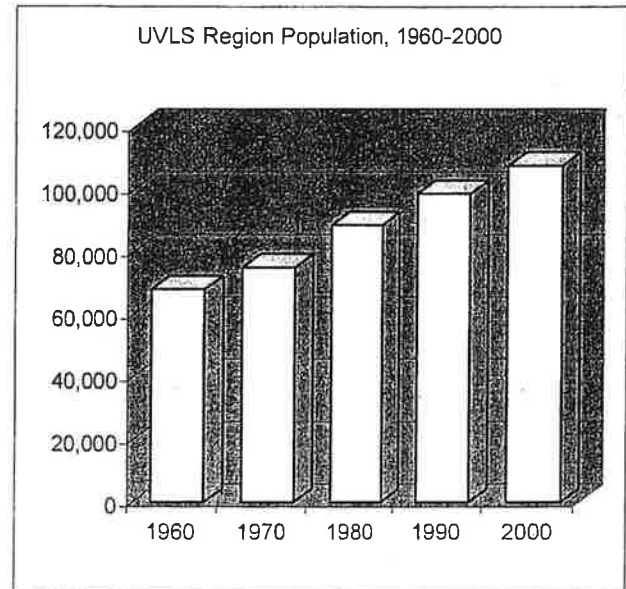
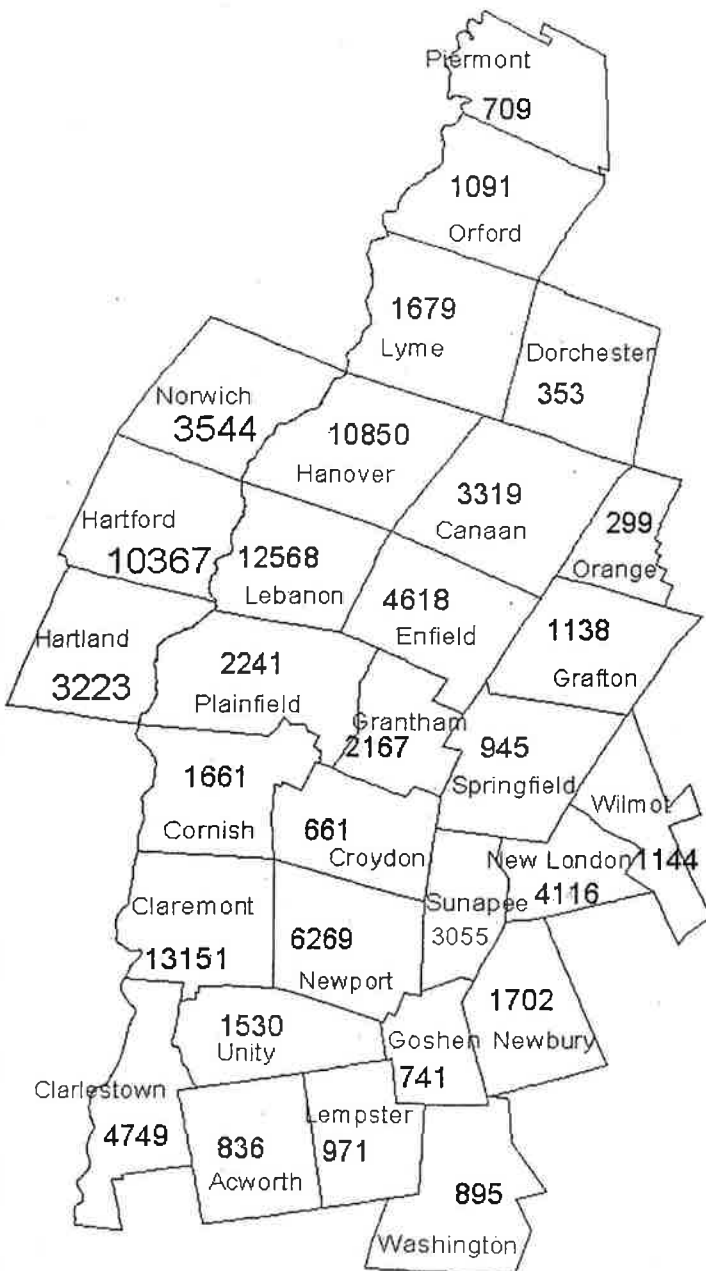
POPULATION GROWTH

Population has grown faster in Orange than in the surrounding Mascoma Valley towns. Population growth is shown in Tables 8 through 10. The annual growth rate over the past twenty years in Orange has been approximately 2.1 percent, and 2.35 percent between 1990 and 2000.

SOURCE OF GROWTH – NATURAL INCREASE VS. MIGRATION

Figures for births and deaths and census data substantiate that the increase in Orange’s population has been almost entirely new people moving into town. For the years between the 1990 census and the 2000 census, 22 births in Orange and 22 deaths were reported by the NH Department of Health. These data indicate that none of the additional 62 people were the result of natural increase and all growth represents in-migration.

UVLS Region Population Breaks 100,000



Municipality	1990	2000	Change	% Change
Acworth	776	836	60	7.7%
Canaan	3,045	3,319	274	9.0%
Charlestown	4,630	4,749	119	2.6%
Claremont	13,902	13,151	-751	-5.4%
Cornish	1,659	1,661	2	0.1%
Croydon	627	661	34	5.4%
Dorchester	392	353	-39	-9.9%
Enfield	3,979	4,618	639	16.1%
Goshen	742	741	-1	-0.1%
Grafton	923	1,138	215	23.3%
Grantham	1,247	2,167	920	73.8%
Hanover	9,212	10,850	1,638	17.8%
Hartford	9,404	10,367	963	10.2%
Hartland	2,988	3,223	235	7.9%
Lebanon	12,183	12,568	385	3.2%
Lempster	947	971	24	2.5%
Lyme	1,496	1,679	183	12.2%
New London	3,180	4,116	936	29.4%
Newbury	1,347	1,702	355	26.4%
Newport	6,110	6,269	159	2.6%
Norwich	3,093	3,544	451	14.6%
Orange	237	299	62	26.2%
Orford	1,008	1,091	83	8.2%
Piermont	624	709	85	13.6%
Plainfield	2,056	2,241	185	9.0%
Springfield	788	945	157	19.9%
Sunapee	2,559	3,055	496	19.4%
Unity	1,341	1,530	189	14.1%
Washington	628	895	267	42.5%
Wilmot	935	1,144	209	22.4%
UVLS Region	94,048	102,592	8,544	9.1%

POPULATION PROJECTIONS

Preliminary year-round population projections for Orange and the surrounding Mascoma Valley towns for the 2005 to 2025 period are shown in Table 11. The New Hampshire Office of State Planning (NH OSP) provided these projections, as presented in the UVLSRPC Regional Plan 2003. Based on these preliminary projections, Orange will continue to grow at approximately 1 percent annually through the next 25 years. According to NH OSP, Orange will grow at a faster rate than the surrounding Mascoma Valley towns.

Table 12 – Population Projections

Town/Area	1990	2000	Average Annual % Growth	Population Projections				
				2005	2010	2015	2020	2025
Orange	237	299	2.35	317	338	352	370	388
Grafton	923	1,138	2.12	1,198	1,273	1,324	1,388	1,452
Enfield	3,979	4,618	1.50	4,915	5,215	5,417	5,675	5,932
Canaan	3,045	3,319	0.87	3,493	3,692	3,823	3,994	4,165
Dorchester	392	353	-1.04	367	388	402	420	438
UVLSRPC	92,058	100,592	0.89	105,277	112,799	118,319	124,430	130,736
New Hampshire	1,109,252	1,235,786	1.09	1,311,059	1,385,562	1,455,517	1,520,566	1,585,790

Source: US Census, NH Office of State Planning Preliminary Population Projections 2005 – 2025, and UVLSRPC

CHAPTER 8

HOUSING

HOUSING

Within the context of a master plan, housing is a basic component of a community's development process, both influencing and influenced by the natural environment, community facilities, the area's economic base, transportation and social interactions.

Housing is a unique commodity in the marketplace. Its production, or lack of it, has repercussions throughout the local, regional and national economy. About one-fourth of our national wealth is in the form of housing. Similarly, about one-third of our incomes are used for housing, and housing is often the single largest financial commitment that we make during our lifetime.

The fact that housing provides shelter for our basic social unit, the family, and because it has such far-reaching implications for the quality of human life and the character of the community, housing and the environment in which it is located are of primary importance for local decision-making. A large portion of our local regulations and ordinances are designed to protect and enhance the residential environment of Orange.

This section will look at overall housing trends, the present composition of housing, and the future of housing in Orange.

HOUSING OCCUPANCY IN ORANGE, 2000

	<u>Number</u>	<u>Percent</u>
Total housing units	134	100.0
Occupied housing units	111	82.8
Vacant housing units	23	17.2
For seasonal, recreational, or occasional use	21	15.7
Rented or sold, not occupied	2	1.4

HOUSING TENURE IN ORANGE, 2000

	<u>Number</u>	<u>Percent</u>
Occupied housing units	111	100.0
Owner-occupied housing units	105	94.6
Renter-occupied housing units	6	5.4
Average household size of owner-occupied units		2.65
Average household size of renter-occupied units		3.50

HOUSEHOLD SIZE IN ORANGE, 2000

<u>Household Size</u>	<u>Number of Households</u>	<u>Percent</u>
1-person	17	15.3
2-person	42	37.8
3-person	20	18.0
4-person	25	22.5
5-person	5	4.5
6-person	1	0.9
7 or more person	1	0.9

RESIDENTIAL DEVELOPMENT IN ORANGE SINCE 1984

46 new homes have been built in Orange since the last master plan was written in 1984.

Cross Road	15	15 resident homes
Tuttle Hill Road	8	8 resident homes
Mt. Cardigan Road	6	5 resident homes, 1 seasonal home
Tug Mountain Road	5	1 resident home, 4 seasonal homes
Burnt Hill Road	2	1 resident home, 1 seasonal home
Route 4	2	2 resident homes
Brock Hill Road	2	2 resident homes
Eastman Road	1	1 resident home
New Colony Road	1	1 resident home
Peaslee Road	1	1 resident home
Pike Road	1	1 resident home
Wheeler Road	1	1 resident home
Washburn Road	1	1 resident home
Totals	<u>46</u>	<u>40 resident homes</u> <u>6 seasonal homes</u>

THE ORANGE ZONING ORDINANCE AND HOUSING

The entire town of Orange is considered a Rural Residential District. The primary purpose of this district is to provide for low-density rural living and open space, in keeping with the scenic, recreational, and environmental values inherent in this community such as wetlands, poor soil conditions, steep slopes, and prime agricultural soils.

Permitted Uses: One and two-family dwelling units.
Home business.
Single manufactured home.
Agricultural and forestry uses.

Minimum Lot Size: Two acres

Minimum Lot Frontage: 200 feet

There are special provisions for Cluster Residential Development

RESULTS OF COMMUNITY SURVEY REGARDING RESIDENTIAL DEVELOPMENT

4. Which of the following types of residential development would you like to see develop in Orange in the future? (check all that apply)

- 102 a. single family residences on individual lots
- 10 b. two-family dwellings on individual lots
- 17 c. cluster housing with common open space preserved
- 15 d. other types (please specify)

Single family homes with minimum of 10 acres (3)
Single family homes with minimum of 5 acres (2)
Single family homes with minimum of 3 acres (1)
Current inventory of buildings is sufficient (2)
Senior housing (1)

Table DP-4. Profile of Selected Housing Characteristics: 2000

Geographic area: Orange town, Grafton County, New Hampshire

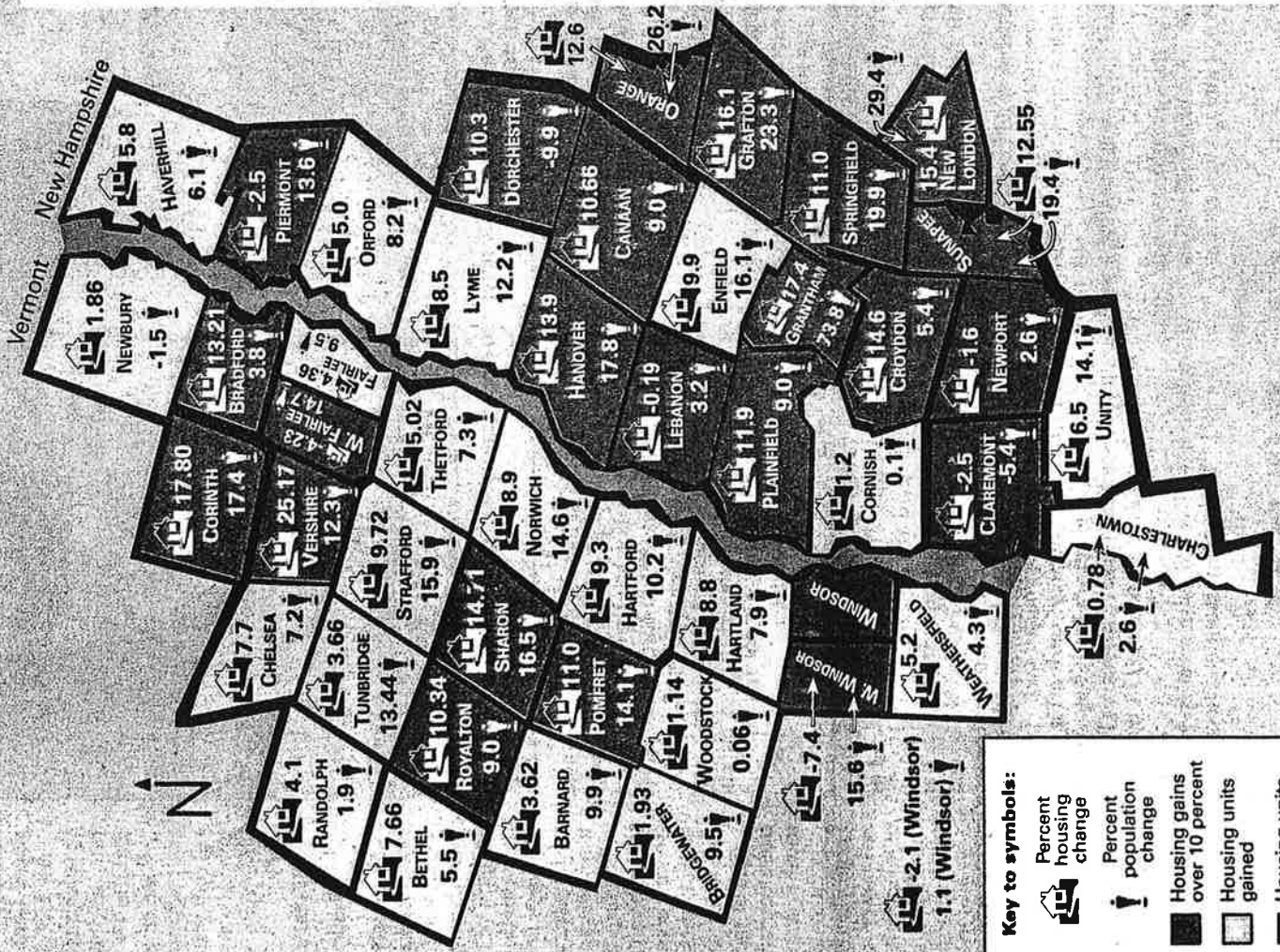
[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
Total housing units	140	100.0	OCCUPANTS PER ROOM		
UNITS IN STRUCTURE			Occupied housing units	116	100.0
1-unit, detached	113	80.7	1.00 or less	112	96.6
1-unit, attached	2	1.4	1.01 to 1.50	2	1.7
2 units	-	-	1.51 or more	2	1.7
3 or 4 units	3	2.1	Specified owner-occupied units	56	100.0
5 to 9 units	-	-	VALUE		
10 to 19 units	-	-	Less than \$50,000	5	8.9
20 or more units	-	-	\$50,000 to \$99,999	19	33.9
Mobile home	22	15.7	\$100,000 to \$149,999	21	37.5
Boat, RV, van, etc	-	-	\$150,000 to \$199,999	9	16.1
YEAR STRUCTURE BUILT			\$200,000 to \$299,999	2	3.6
1999 to March 2000	4	2.9	\$300,000 to \$499,999	-	-
1995 to 1998	16	11.4	\$500,000 to \$999,999	-	-
1990 to 1994	18	12.9	\$1,000,000 or more	-	-
1980 to 1989	15	10.7	Median (dollars)	105,900	(X)
1970 to 1979	32	22.9	MORTGAGE STATUS AND SELECTED		
1960 to 1969	8	5.7	MONTHLY OWNER COSTS		
1940 to 1959	11	7.9	With a mortgage	39	69.6
1939 or earlier	36	25.7	Less than \$300	-	-
ROOMS			\$300 to \$499	-	-
1 room	2	1.4	\$500 to \$699	2	3.6
2 rooms	6	4.3	\$700 to \$999	21	37.5
3 rooms	2	1.4	\$1,000 to \$1,499	16	28.6
4 rooms	20	14.3	\$1,500 to \$1,999	-	-
5 rooms	33	23.6	\$2,000 or more	-	-
6 rooms	19	13.6	Median (dollars)	965	(X)
7 rooms	24	17.1	Not mortgaged	17	30.4
8 rooms	27	19.3	Median (dollars)	375	(X)
9 or more rooms	7	5.0	SELECTED MONTHLY OWNER COSTS		
Median (rooms)	5.9	(X)	AS A PERCENTAGE OF HOUSEHOLD		
Occupied housing units	116	100.0	INCOME IN 1999		
YEAR HOUSEHOLDER MOVED INTO UNIT			Less than 15.0 percent	15	26.8
1999 to March 2000	23	19.8	15.0 to 19.9 percent	17	30.4
1995 to 1998	35	30.2	20.0 to 24.9 percent	10	17.9
1990 to 1994	26	22.4	25.0 to 29.9 percent	2	3.6
1980 to 1989	10	8.6	30.0 to 34.9 percent	4	7.1
1970 to 1979	15	12.9	35.0 percent or more	8	14.3
1969 or earlier	7	6.0	Not computed	-	-
VEHICLES AVAILABLE			Specified renter-occupied units	-	-
None	-	-	GROSS RENT		
1	29	25.0	Less than \$200	-	-
2	47	40.5	\$200 to \$299	-	-
3 or more	40	34.5	\$300 to \$499	-	-
HOUSE HEATING FUEL			\$500 to \$749	-	-
Utility gas	3	2.6	\$750 to \$999	-	-
Bottled, tank, or LP gas	20	17.2	\$1,000 to \$1,499	-	-
Electricity	3	2.6	\$1,500 or more	-	-
Fuel oil, kerosene, etc	67	57.8	No cash rent	-	-
Coal or coke	-	-	Median (dollars)	-	(X)
Wood	23	19.8	GROSS RENT AS A PERCENTAGE OF		
Solar energy	-	-	HOUSEHOLD INCOME IN 1999		
Other fuel	-	-	Less than 15.0 percent	-	-
No fuel used	-	-	15.0 to 19.9 percent	-	-
SELECTED CHARACTERISTICS			20.0 to 24.9 percent	-	-
Lacking complete plumbing facilities	4	3.4	25.0 to 29.9 percent	-	-
Lacking complete kitchen facilities	-	-	30.0 to 34.9 percent	-	-
No telephone service	2	1.7	35.0 percent or more	-	-
			Not computed	-	-

-Represents zero or rounds to zero. (X) Not applicable.

Source: U.S. Bureau of the Census, Census 2000.

The Upper Valley's Housing Changes, 1990-2000



Town	Housing Units		Percent Change, 1990-2000	
	1990	2000	Housing	Pop.
Barnard	607	629	3.62	9.9
Bethel	888	956	7.66	5.5
Bradford	1,075	1,217	13.21	3.8
Bridgewater	571	582	1.93	9.5
Canaan	1,435	1,588	10.66	9.0
Charlestown	2,051	2,067	0.78	2.6
Chelsea	610	657	7.70	7.2
Claremont	6,228	6,074	-2.5	-5.4
Corinth	618	728	17.80	17.4
Cornish	689	697	1.2	0.1
Croyden	309	354	14.6	5.4
Dorchester	214	236	10.3	-9.9
Enfield	2,158	2,372	9.9	16.1
Fairlee	551	575	4.36	9.5
Grafton	601	698	16.1	23.3
Grantham	1,289	1,513	17.4	73.8
Hanover	2,623	2,989	13.9	17.8
Hartford	5,026	5,493	9.3	10.2
Hartland	1,270	1,382	8.8	7.9
Haverhill	2,031	2,148	5.8	6.1
Lebanon	5,718	5,707	-0.19	3.2
Lyme	693	752	8.5	12.2
Newbury	1,132	1,153	1.86	-1.5
New London	1,806	2,085	15.4	29.4
Newport	2,675	2,633	-1.6	2.6
Norwich	1,382	1,505	8.9	14.6
Orange	119	134	12.6	26.2
Orford	534	561	5.0	8.2
Piermont	404	394	-2.5	13.6
Plainfield	784	877	11.9	9.0
Pomfret	490	544	11.0	14.1
Randolph	1,830	1,905	4.10	1.9
Royalton	1,161	1,281	10.34	9.0
Sharon	578	663	14.71	16.5
Springfield, N.H.	481	534	11.0	19.9
Strafford	494	542	9.72	15.9
Sunapee	1,904	2,143	12.55	19.4
Thetford	1,136	1,193	5.02	7.3
Tunbridge	655	679	3.66	13.4
Unity	558	594	6.5	14.1
Vershire	302	378	25.17	12.3
Weathersfield	1,249	1,315	5.2	4.3
West Fairlee	355	340	-4.23	14.7
West Windsor	773	716	-7.4	15.6
Windsor	1,647	1,611	-2.1	1.1
Woodstock	1,755	1,775	1.14	0.06
TOTALS	61,459	64,969	5.7%	8.2%

Source: U.S. Census

RECOMMENDATION

Orange should expect to experience continued housing growth based on the growing employment center in Lebanon and Hanover. Most of the future growth is expected to continue to be primarily in single-family housing units. The Planning Board should consider encouraging future housing development to continue to be located along existing Class V highways or better, and not in places far removed from Town roads and services, in order to maximize efficiency of service and minimize costs to the Town.

CHAPTER 9

ECONOMIC BASE

ECONOMIC BASE

The term “economic base” refers to many different aspects of the local economy, including factors relating to employment, commuting patterns, financial status and taxes. All of these factors are interrelated: a change in one often affects one or more of the others. For example, factors that affect business development in the region determine what kinds of jobs are available to residents and how well these jobs pay. Regional business development, employment opportunities throughout the area, and personal incomes all influence how much property tax income is available to the Town for the provision of facilities and services. Consequently, the condition of a community’s economic base affects the quality of life for its citizens in many different ways.

The economic base of a community is evaluated using economic indicators. These are numbers compiled by various sources that indicate one or more things about the trends and relationships of the local and regional economy. In this chapter on Economic Base, the Master Plan looks at available information on employment, commuting patterns, financial status, and taxes.

Community Survey Results

The following responses were received in the community survey when asked, “What type of town would you like Orange to be in the future?”

- 131 a. remain a rural residential community
- 3 b. become a light industrial based town
- 0 c. become a commercial based town
- 9 d. mixture of the above

ORANGE TAX RATES, TAXES COMMITTED & ASSESSED VALUATIONS

1987 TO 2003

Year	Town Rate	School Rate	County Rate	Total Rate	Taxes Committed	Assessed Valuation
1987	1.47	28.00	2.11	31.58	137,424	N/A
1988	8.89	34.15	2.76	45.80	197,567	N/A
1989	9.86	36.33	3.61	49.80	220,170	4,453,209
1990	4.74	36.97	3.04	44.75	205,279	4,658,744
1991	3.99	12.49	1.05	17.53	265,135	15,312,872
1992	4.31	13.83	1.33	19.47	287,904	14,951,436
1993	4.35	13.94	1.50	19.79	295,304	14,921,857
1994	4.46	14.60	1.47	20.53	306,757	14,941,857
1995	4.33	11.46	1.48	17.27	256,145	14,993,896
1996	0.96	15.06	1.25	17.27	258,898	14,991,196
1997	0.96	17.19	1.09	19.24	319,444	16,603,115
1998	2.62	16.96	1.26	20.84	315,457	15,300,264
1999	5.40	6.91 L 6.84 S (13.75) Total	1.61	20.76	322,881	15,700,455
2000	4.59	10.26 L 5.92 S (16.18) Total	1.51	22.28	344,024	15,692,955
2001	5.10	9.20 L 6.40 S (15.60) Total	1.69	22.39	346,735	15,737,684
2002	5.60	13.93 L 6.07 S (20.00) Total	1.61	27.21	423,481	15,771,833
2003	5.69	18.06 L 5.08 S (23.14) Total	1.63	30.46	484,242	16,074,945

RECOMMENDATIONS

The following are recommendations to preserve and strengthen Orange's economic base.

- 1. Protect and preserve the natural, scenic and cultural resources, the quality of life, and the small-town character of the community.**

Orange's single most important assets are the scenic and natural resources of this rural residential community.

- 2. Continue to accommodate home occupations and home businesses.**

The Town should continue to accommodate home occupations and home businesses which are secondary and accessory to the principal residential use of the property and are compatible with neighboring residential uses.

- 3. Develop and adopt Site Plan Review Regulations for non-residential, commercial, and multifamily residential development.**

The site plan review process is intended to assist in the preservation and enhancement of the rural atmosphere, the existing natural environment, and the overall quality of life for the citizens of Orange, while allowing for orderly growth and development.

- 4. Support fair, equitable, and affordable taxation for all Orange property owners.**

The Town should continue to preserve and strengthen the tax base through proper land use planning, and by using the overall vision statement of this Master Plan as a true guideline for the future growth and development of the community.

Table 7 in the Transportation Chapter shows commuting activity in Orange, based on the 2000 Census. Limited employment opportunities exist in Orange and most residents commute to Lebanon, Hanover and Canaan for work. Town services, natural resource extraction and home occupations provide most of the few jobs available in Orange. It is important for the Town to continue to promote these employment opportunities in Town, while also maintaining access to jobs in Lebanon, Hanover and Canaan.

CHAPTER 10

COMMUNITY FORUM PROGRAM

The Orange Planning Board

Invites All Citizens To A

COMMUNITY FORUM

Wednesday, May 23, 2001 at 7:00 p.m.

Orange Town House

The Planning Board has begun the process of updating and revising the Orange Master Plan, first developed back in 1984. The master plan provides a framework to guide the future growth and development of our community.

FORUM AGENDA

Part I – Background Information

1. What are the basics of a master plan?
2. What goals have been accomplished from our 1984 Master Plan?
3. The latest population figures and trends for Orange.
4. A review of development in Orange since 1984.
5. A review of the ownership of land in Orange: residents, non-residents, state park.
6. A review of land use planning in Orange.

Part II – Review of the proposed Community Survey

The Planning Board has already been through four drafts of the survey. We want to make sure that we ask the right questions. We now need your opinions and suggestions regarding the final draft of the survey which will be mailed to all citizens in Orange. A master plan is worthwhile only if it meets the needs and desires of the citizens.

Please plan to attend this important community meeting to learn about the master plan revision process, and to offer your opinions and suggestions to help us define our community's vision for the future.

Orange Planning Board

COMMUNITY FORUM on the TOWN MASTER PLAN

Wednesday, May 23, 2001

1. What are the basics of a master plan?

The overall purpose of the master plan is to provide guidelines for the future growth and development of our community.

The process of developing an updated Town Master Plan is an opportunity to undertake a comprehensive evaluation of the community's needs and desires as they pertain to the anticipated growth of Orange. Without this comprehensive planning process, in a relatively short time, the Town could find it has lost many of the assets and special qualities that its citizens cherish.

The process of updating the master plan began last fall when the Planning Board began to generate the background information that will be shared with you tonight. And we also want to get your opinions and suggestions to make the Community Survey worthwhile by asking the right questions.

Over the next several months, the Planning Board will be assisted by the Upper Valley Lake Sunapee Regional Planning Commission in evaluating the results of the Community Survey and updating the master plan topics that include population, housing, economic base, transportation, community facilities and services, recreation, historic resources, natural resources, and land use. A chapter will be written for each topic and an updated set of goals, policies and recommendations will be developed for each of those topics. Citizens will have the opportunity to review and critique drafts of each chapter as they are completed. Public hearings will be held on the draft of the updated Master Plan before its adoption.

2. Goals Accomplished From the 1984 Master Plan.

Adopted a Zoning Ordinance in 1985.

Adopted a basic Building Code in 1985 and a comprehensive Building Ordinance in 2000

Expanded and renovated the Orange Town House to include water and toilet facilities.

Adopted a school assessment formula based solely on Average Daily Membership.

Updated the Subdivision Regulations in 1993.

Established a cooperative system for fire protection, ambulance service, and recycling.

Established an in-town system for police services and rubbish removal.

Eliminated most of the misuse in the state park through volunteer efforts of the Friends of Mount Cardigan State Park.

Maintained, in most respects, the rural residential character of the Town.

3. Population figures and trends for Orange.

1990	2000	Change	Percent Increase
237	299	+62	+26.2%

Since 1990, Orange has had the largest percent increase in growth of the five Mascoma Valley towns.

Orange	(+62)	+26.2%
Grafton	(+215)	+23.3%
Enfield	(+639)	+16.1%
Canaan	(+274)	+9%
Dorchester	(-39)	-10%

1786	80	1900	213
1790	131	1910	176
1800	203	1920	166
1810	229	1930	99
1820	298	1940	109
1830	410	1950	82
1840	463	1960	83
1850	451	1970	103
1860	382	1980	197
1870	340	1990	237
1880	335	2000	299
1890	245	2010	?

4. Review of development in Orange since 1984.

45 new homes have been built in Orange since the last master plan was written in 1984.

Cross Road	15	15 resident homes
Tuttle Hill Road	8	8 resident homes
Mt. Cardigan Road	6	5 resident homes, 1 seasonal home
Tug Mountain Road	5	1 resident home, 4 seasonal homes
Burnt Hill Road	2	1 resident home, 1 seasonal home
Route 4	2	2 resident homes
Eastman Road	1	1 resident home
New Colony Road	1	1 resident home
Peaslee Road	1	1 resident home
Pike Road	1	1 resident home
Wheeler Road	1	1 resident home
	<u>45</u>	<u>39 resident homes</u> <u>6 seasonal homes</u>

(In 1980, there were 100 homes in Orange; 85 resident homes & 15 seasonal homes)

5. Ownership of Land in Orange.

Residents own 127 parcels with a total of 2013.94 acres.	(14%)
Non-residents own 124 parcels with a total of 7753.10 acres.	(52%)
Mount Cardigan State Park and Forest contains 5053 acres	(34%)
Town of Orange owns 9 parcels with a total of 41.37 acres	(.0028%)
Total	14,861.41 acres

(In 1984, residents owned approximately 2500 acres and non-residents owned 7409 acres.)

6. History of Land Planning in Orange.

- 1978 - Subdivision Regulations adopted
- 1984 - Town Master Plan adopted
- 1985 - Zoning Ordinance adopted
- 1985 - basic Building Code adopted
- 1986 - Zoning Ordinance amended
- 1990 - Zoning Ordinance amended
- 1993 - Subdivision Regulations amended
- 2000 - comprehensive Building Ordinance adopted
- 2000 - Telecommunications Facility Ordinance adopted
- 2000 - Update of Master Plan begun

Basics of the Zoning Ordinance:

The entire town is a rural residential district, and “ the primary purpose of this district is to provide for low-density rural living and open space, in keeping with the scenic, recreational and environmental values inherent in this community...”

Permitted Uses: One and two-family dwelling units
Home businesses
Single manufactured homes
Agricultural and forestry uses

Lot size: 2 acre minimum (lot depth can be no more than 4 times the frontage)
Lot frontage: 200 feet minimum

CHAPTER 11

COMMUNITY SURVEY RESULTS

ORANGE PLANNING BOARD
ORANGE, NEW HAMPSHIRE

December 3, 2001

Dear Orange Residents and Property Owners:

We wish to thank all of you who took the time to complete and return the community surveys. The Board has received 145 completed surveys which represent an excellent return rate of 46%. Usually, communities have a response rate of only 12% to 25% for such surveys. We appreciate all of the thoughtful comments and valuable suggestions that so many respondents made regarding the future of Orange. The surveys were completed by a good cross-section of the community representing all ages and length of residency and ownership, as well as an equal percentage of residents and non-resident property owners. The results of the survey will be incorporated into all aspects of the new master plan which will provide a framework to guide the future growth and development of Orange.

We are pleased to share with you the final tabulation of responses along with a brief summary of the many excellent comments and suggestions that were made.

Over the next 18 months, the Planning Board will be working with the professional planners from the Upper Valley Lake Sunapee Regional Planning Commission to develop the new Orange Master Plan. The nine chapters of the master plan will include population, housing, economic base, transportation, community facilities and services, recreation, historic resources, natural resources, and land use. An updated set of goals, policies and recommendations will be written for each topic. Citizens will have the opportunity to review and critique drafts of each chapter as they are completed. Public hearings will be held on the draft of the proposed master plan before its adoption..

Thank you for your continued interest in your community and its future.

Sincerely,

Robert Ells
Evelyn Finn
William Fulton
Robert Proulx
Katharine Riley
Scott Sanborn
George Smith
Lyell Smith

**Town of Orange
Community Survey**

FINAL TABULATION

**1. Why do you feel Orange is a desirable place to live and / or own property?
(Check all that apply)**

- 123 a. small town atmosphere
- 133 b. uncrowded and quiet living conditions
- 58 c. community spirit
- 98 d. friendly people
- 131 e. scenic and unpolluted natural environment
- 97 f. rural residential character
- 13 g. school system
- 9 h. employment opportunities in the area
- 90 i. Mount Cardigan State Park
- 75 j. low taxes
- 61 k. outdoor recreation
- 11 l. other (please specify):

- * It is what New Hampshire really is, and it is preserved in a rare and beautiful environment.
- * It's unspoiled by over-development.
- * Proximity and easy access to Dartmouth Hitchcock Medical Center and College.
- * Beautiful and uncrowded 28-acre Orange Pond.
- * Exceptional theatre, opera, good music and dance in Upper Valley.
- * Great place to live and hope it stays small.
- * Orange Zoning Ordinance.
- * No town political infighting like neighboring towns.
- * Not much traffic and great place for horses.

2. What type of town would you like Orange to be in the future?

- 131 a. remain a rural residential community
- 3 b. become a light industrial based town
- 0 c. become a commercial based town
- 9 d. mixture of the above

3. Twenty years in the future, I would like Orange to have a :

- 10 a. smaller population
- 70 b. same population
- 61 c. slightly larger population
- 1 d. much larger population

4. Which of the following types of residential development would you like to see develop in Orange in the future? (check all that apply)

- 102 a. single family residences on individual lots
- 10 b. two-family dwellings on individual lots
- 17 c. cluster housing with common open space preserved
- 15 d. other types (please specify):

- * Single family homes with minimum of 10 acres (3)
- * Single family homes with minimum of 5 acres (2)
- * Single family homes with minimum of 3 acres (1)
- * Current inventory of buildings is sufficient (2)
- * Senior housing (1)
- * Cluster housing on a very small scale (e.g. less than 5 units, preferably less), but if a larger development were to occur, this might be better than distribution of housing over a larger area.
- * I don't really care for cluster housing. It is becoming common throughout the country, but I think it is ugly and does not fit in with small towns up here.

5. Do you favor special considerations to control development of the following areas?

<u>Yes</u>	<u>No</u>	<u>Uncertain</u>	
<u>99</u>	<u>14</u>	<u>12</u>	a. wetlands
<u>79</u>	<u>14</u>	<u>24</u>	b. steep slope areas
<u>80</u>	<u>14</u>	<u>21</u>	c. high elevation areas
<u>95</u>	<u>12</u>	<u>14</u>	d. shorelines of ponds, brooks and streams
<u>88</u>	<u>14</u>	<u>20</u>	e. areas hard to service by school bus, snowplow, police, fire department, and road crews

6. How do you rate each of the following public services?

	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Uncertain</u>
Fire protection	<u>76</u>	<u>14</u>	<u>2</u>	<u>40</u>
Police protection	<u>57</u>	<u>25</u>	<u>15</u>	<u>35</u>
FAST Squad	<u>77</u>	<u>11</u>	<u>2</u>	<u>38</u>
Road repair and maintenance	<u>91</u>	<u>27</u>	<u>5</u>	<u>11</u>
Snowplowing	<u>95</u>	<u>7</u>	<u>0</u>	<u>12</u>
Garbage collection	<u>92</u>	<u>9</u>	<u>0</u>	<u>22</u>
Recycling opportunities	<u>60</u>	<u>23</u>	<u>3</u>	<u>31</u>
Management of town government	<u>68</u>	<u>25</u>	<u>11</u>	<u>22</u>
Educational system	<u>25</u>	<u>47</u>	<u>9</u>	<u>39</u>
Recreation	<u>61</u>	<u>20</u>	<u>7</u>	<u>33</u>

7. Which of these ideas do you favor to help promote an improved sense of community in Orange? (check all that apply)

- 99 a. a small periodic community newsletter
- 46 b. periodic community information meetings
- 74 c. more social events at the Town House like the annual Christmas Party

Please suggest other ideas:

- * Publish and distribute to all residents and property owners an informational directory to include meeting dates & times for Selectmen, Planning Board, Town Clerk hours, recycling center hours, and other pertinent information regarding building & driveway permits, etc.
- * An event like a spring fling day, Old Home Day, summer barbeque, pig roast, Fourth of July picnic, or town fellowship day.
- * Information should be put on the town website to keep people better informed.
- * More meetings to get input from residents and property owners as at Town Meeting.
- * Push for more residents to become involved in town government committees.
- * Continue the types of Sunday hikes that were held this fall to Cilley's Cave, mine sites, & Orange Basin followed by a potluck supper at the Town House.
- * A small periodic newsletter for non-resident property owners.
- * Social events and meetings held in the evenings are difficult for older people since many do not drive.
- * Community service projects such as assisting elderly with yardwork, house repairs, & trips to the doctors, etc.

8. Are you a: (Check one)

- 80 a. Year-round resident and property owner
- 17 b. Part-time or seasonal resident and property owner
- 13 c. Resident voter, non-property owner
- 32 d. Non-resident property owner

9. How many years have you resided in Orange?

- 26 a. Less than five years
- 39 b. More than 5 years and less than 15 years
- 29 c. More than 15 years and less than 30 years
- 13 d. More than 30 years
- 33 e. Not a resident of Orange

10. How many years have you owned property in Orange?

- 26 a. Less than five years
41 b. More than 5 years and less than 15 years
34 c. More than 15 years and less than 30 years
27 d. More than 30 years
12 e. Not a property owner in Orange

11. In what age bracket are you? (check one)

- 3 a. Under 25 years old
23 b. 25 - 39 years old
52 c. 40 - 54 years old
32 d. 55 - 64 years old
28 e. over 65 years old

12. How many children do you have at home that are in the following categories?

- 9 a. Preschool
25 b. Grades K-4
16 c. Grades 5-8
12 d. Grades 9-12

13. List those special places in Orange that the Town should commit to preserving for future generations:

- (35) Orange Town House and the area surrounding it
(32) Orange Pond and the area around it
(30) Orange Basin
(21) Mount Cardigan State Park
(16) Cardigan Mountain & the trails
(13) the old mines & quarries; Hoyt Hill, Tug Mountain, Cardigan Road, etc.
(12) all ponds, brooks, streams, wetlands, waterfalls in town
(10) all beaver ponds in town
(10) the town cemeteries
(9) all scenic roads in town
(8) all old logging and access roads, and all Class 5 & 6 roads for recreation
(5) all historic sites; mill sites on brooks, old farmsteads, Cilley's Cave, etc.
(4) the continued undeveloped simple access to Mount Cardigan
(4) the old school house on Tuttle Hill Road should be preserved and restored

- * as much of the woodlands as possible and the wildlife within
- * as much of the undeveloped areas as possible and all critical conservation areas
- * the expanse of undeveloped forest in the north part of town
- * the open areas of land where anyone can hike, fish, picnic, etc.
- * anything that is a reason for Orange being here in the first place
- * ideas: create a community garden, restore the old town pound on Mt. Cardigan Road, create a community area on town-owned land adjacent to Orange Basin.
- * utilize the Town House truly as a gathering place for all community groups.

15. In your opinion, what should be done to improve conditions in the area where your property is located?

The snowplow should go to the end of Mt. Tug Road to serve the property taxpayers who reside there.

Snowplowing. This was a hard winter. At least one pass through would have helped to let us get to work in the morning. Clearing roads so that people can get to work and return from work should be a continuing priority.

Nothing. Where I built I deal with only about 150 feet of town road. The rest of my driveway is my own problem. So far, they always manage to keep the town section open and sanded as well as can be expected.

As non-resident property owners who usually spend weekends at the property, there are no accommodations for us to get rid of our trash without leaving it at the roadside from Sunday or Monday until pickup on Friday.

Let people know it's no longer a status symbol to have junk cars or unlicensed cars in your yard. Set a limit. Trash cans should be removed from curbside after 24 hours.

More control over people speeding on Cross Road and Tuttle Hill. Put up slow children signs.

Speed law on Mount Cardigan Road needs more visible signs and enforcement of speed. It was necessary to have our mailbox moved across the road in front of our home.

I like it just the way it is.. a narrow dirt road.. that's why I chose to live where I do!

Install culverts on sides of Brock Hill Road so driveways / private roads do not accumulate buildup of sand during heavy rains & help keep the sides of the road from washing out.

Occasional police patrol during raceway nights especially. Tuttle Hill paved road is now a fast track!

Realizing the problem of what to do with the snow, the dirt roads have been made wider wherever possible. The result has been speeding and lots of dust in the summer. Could we consider more police surveillance and calcium chloride used in front of homes?

20 persons mentioned various aspects of road maintenance in their neighborhoods.

11 persons mentioned concerns about snowplowing in their neighborhoods.

6 persons mentioned concerns about speeding and the need for speed limit signs.

4 persons mentioned concerns about road signage and missing road signs.

16. Please include any other comments you may have about the future of Orange.

Please try to maintain the scenic vistas, open spaces and wetlands that make Orange so unique and beautiful.

Expand "library" with historical writings, memories, photos, ... open to the public on a regular basis. Develop volunteer position of Town Historian to maintain collection and history.

It's a wonderful area. That's what attracted and persuaded us to plan our retirement there. Keep it small and charming!

I would like to see us go back to a one-room school house.

I am very happy with the repairs and upgrade of the town roads.

We must be a presence in the affairs of neighboring towns, since their mandates can have a direct impact upon our living environment. (ie, the Speedway)

I'd love to see the library reopen, if perhaps for only one evening a month for coffee, tea, donuts, - a social evening - a scheduled event for the evening: poetry reading, slide show of someone's recent trip, story telling, children's presentations, old-timers telling of town history, art show, quilting bee, etc.

We look forward to many more years of enjoyment after 30 years of ownership. We stand ready to assist the town in any matter they think useful.

I think we are on the right track now. More of the same would be great. My only concern is that we continue to pay our way with the Canaan Fire Department. That's one real bargain in my opinion. I'd hate to see the day we have to spring for our own.

I hope Orange stays a small town and doesn't outgrow itself.

Create a community resource bank. There are many residents with varied talents, expertise and interests. This might include an emergency management aspect.

Rural character is under assault everywhere. I hope it doesn't change here.

It is obvious that there will be future growth. I think that if carefully planned with some guidelines, the Town will hold its beauty and character as we know it today. Orange is a little known secret.

We like Orange just the way it is. That's why we moved here.

Proud to live in a community where people are interested in their local government. That they will give of their time, knowledge and dedication to future needs of our community. Put town first over personal feelings. Hope it remains same type of village.

Infrastructure upgrading and improvements which prevent deterioration should be encouraged. As an example, the bridge and road work on Tuttle Hill Road a few years ago did a lot toward that end. It was done so well that the end result preserved the overall appearance and quality of the area.

Keep Orange as it is. Do not permit it to be trashed as so many other NH towns have been.

We feel very positive about the community. Everyone's doing a great job and we are very pleased to own property here.

Consider a town ordinance to limit light pollution. Keep Orange lit by stars, not sodium lights.

I enjoy living in Orange. I think that Orange has been unique in that it keeps town government basic and simple. Some towns and people use regulations on development to try to keep people out. But I believe growth is going to happen whether we like it or not. People all need a place to live. I would like to see Orange's town government stay the same, simple and basic. I also think landowners should have a right to do whatever they want on their land, within reason, meaning not endangering the health of their neighbors.

We like the Town, and are happy to have a cabin there.

I am happy that you are updating the master plan. I know how important this is toward controlling growth in a community.

Although I like the idea of the website, I'm afraid of the exposure. I like Orange better as "our secret".

Develop a volunteer litter pickup program for each road in Orange, as is done for the Mount Cardigan Road.

Complete the Enhanced 911 Program for Orange.

11 persons expressed concerns about the increased number of manufactured housing units.

6 persons suggested additional town clerk hours to include Saturday mornings and also provide for issuance of plates and decals.

4 persons suggested an annual or semi-annual large trash pickup for the town.

4 persons urged enforcement of the junk car regulations and the leash law for dogs.

CHAPTER 12

NEW HOME CONSTRUCTION

1984 TO 2000

NEW HOMES BUILT IN ORANGE SINCE 1984

(This study was completed February 28, 2001)

Cross Road

Rocke
Buckwold
Nusbaum
Packard
Adams
Longley
Brown
Lahaye
Williams
Belloir
Longley
Babbitt
McCarthy/Gladney
Thompson
Hall

Tuttle Hill Road

Shelzi
Smith
Cook
Daley
White
Hazelton
Mayotte
Stacy

Mount Cardigan Road

Smith
Morancy
Rocke/Davis
Altman/Ferber
Wilson/Wagner
Jaques/Leffler

Burnt Hill Road

Mittelholzer
Guarnieri

Tug Mountain Road

Gunn
Anderson
Tetreault
Payson
Grove

Eastman Road

Coutermarsh

New Colony Road

Rollman

Peaslee Road

Watson

Pike Road

McAlister

Wheeler Road

Wheeler

Route 4

Hammond
Hammond

Washburn Road

Pierson

Brock Hill Road

Ells
Dias

45 new homes have been built since the last master plan was written in 1984.

CHAPTER 13

OWNERSHIP OF LAND

FEBRUARY, 2001

OWNERSHIP OF LAND IN ORANGE

Residents own 127 parcels with a total of 2013.94 acres.

Non-residents own 124 parcels with a total of 7753.10 acres.

The Town of Orange owns 8 parcels with a total of 26.17 acres.

Mount Cardigan State Park and Forest contains 5053 acres.

(This study was completed February 28, 2001)

Resident Property Ownership

Distribution Chart

<u>Acreage</u>	<u>Parcels</u>
Under 1	(8) .20, .34, .48, .50, .75, .75, .79, .91
1 to 2	(17) 1,1,1,1,1,1,1.19, 1.2, 1.29, 1.37, 1.37, 1.5, 1.5, 1.5, 1.51, 1.67, 1.72
2 to 3	(14) 2, 2, 2.02, 2.05, 2.07, 2.17, 2.24, 2.3, 2.5, 2.5, 2.54, 2.56, 2.8, 2.81
3 to 4	(10) 3, 3, 3.02, 3.2, 3.4, 3.4, 3.57, 3.69, 3.76, 3.9
4 to 5	(3) 4, 4.25, 4.75
5 to 6	(15) 5, 5, 5.01, 5.09, 5.1, 5.1, 5.18, 5.2, 5.32, 5.35, 5.4, 5.45, 5.47, 5.5, 5.8
6 to 7	(7) 6, 6.1, 6.3, 6.44, 6.5, 6.7, 6.75
7 to 8	(3) 7, 7.5, 7.67
8 to 9	(1) 8
9 to 10	(2) 9.6, 9.8
10 to 11	(3) 10.1, 10.3, 10.5
11 to 12	(4) 11, 11, 11.5, 11.84
12 to 13	(5) 12, 12.25, 12.3, 12.82, 12.9
13 to 14	(1) 13.5
14 to 15	(4) 14, 14, 14.3, 14.99
15 to 16	
16 to 17	(2) 16.2, 16.29
17 to 18	
18 to 19	
19 to 20	(1) 19.1
20 to 21	(1) 20.3
21 to 22	(1) 21.1
22 to 23	(2) 22.3, 22.81
23 to 24	
24 to 25	
25 to 26	(1) 25
26 to 49	(11) 26, 29, 29.28, 30.31, 31, 31.03, 32, 32.19, 33, 33, 42
50 to 99	(8) 50, 59, 61.5, 85, 88, 88, 92.46, 97
100 +	(3) 114, 128.4, 150
<u>127</u>	<u>2013.94</u>

Residents own 127 parcels with a total of 2013.94 acres.

(This study was completed February 28, 2001)

Non-Resident Property Ownership

Distribution Chart

<u>Acreage</u>	<u>Parcels</u>
Under 1	(2) .25, .65
1 to 2	(8) 1, 1, 1, 1.02, 1.25, 1.34, 1.7, 1.9
2 to 3	(1) 2.63
3 to 4	(3) 3, 3.5, 3.5
4 to 5	(1) 4
5 to 6	(11) 5, 5, 5, 5, 5, 5.02, 5.2, 5.6, 5.7, 5.7, 5.8
6 to 7	(7) 6, 6.3, 6.5, 6.6, 6.8, 6.8, 6.9
7 to 8	(3) 7.1, 7.2, 7.3
8 to 9	(4) 8, 8.14, 8.3, 8.6
9 to 10	(3) 9, 9, 9.1
10 to 11	(1) 10
11 to 12	
12 to 13	(3) 12, 12, 12.09
13 to 14	(1) 13.7
14 to 15	(1) 14.8
15 to 16	(9) 15, 15, 15, 15, 15, 15, 15.6, 15.7, 15.9
16 to 17	
17 to 18	
18 to 19	(2) 18, 18
19 to 20	(1) 19
20 to 21	(1) 20.4
21 to 22	(1) 21.23
22 to 23	(2) 22, 22.6
23 to 24	
24 to 25	(1) 24.83
25 to 26	(2) 25.6, 25.6
26 to 49	(19) 26, 27, 29, 30,30,30, 35, 37, 38, 39, 39, 40, 40, 41, 42, 43, 44, 45, 46
50 to 99	(14) 57, 57.2, 58, 60, 60, 60, 60, 63, 66, 69, 75, 79, 80, 95.4
100 to 199	(9) 100, 105, 110, 110, 140, 145, 151.4, 155.25, 155.9
200 to 299	(8) 206.5, 208, 225, 236, 246, 253, 263, 266
300 to 399	(4) 310, 311, 374, 380
400 to 499	(1) 409
500 to 599	
600 +	(1) 610
<hr/>	<hr/>
124	7753.10

Non-residents own 124 parcels with a total of 7753.10 acres.

(This study was completed February 28, 2001)

Property Owned by the Town of Orange

Town House, Mount Cardigan Road, (Map 3, Lot 11), 0.27 acres

Gravel Pit, Mount Cardigan Road, (Map 3, Lot 56), 11.25 acres

Church Cemetery, Mount Cardigan Road, (Map 3, Lot 2), 0.52 acres

Common Cemetery, Tug Mountain Road, (Map 3, Lot 3), 0.38 acres

French Cemetery, Mount Cardigan Road, (Map 3, Lot 100), 0.75 acres

George Hall property by tax deed, Cross Road, (Map 1, Lot 24), 15.2 acres (sold at tax deed auction on December 14, 2002)

Parcel, Route 4, (Map 1, Lot 34), 0.1 acres

Parcel, on Alexandria town line, (Map 7, Lot 3), 8.9 acres

Parcel, formerly part of Paisley land, Burnt Hill Road, (Map 8, lot 5), 4 acres

Mount Cardigan State Forest

Mount Cardigan State Park and Forest contains 5053 acres.