

GOALS AND OBJECTIVES STATEMENT
Master Plan

Town of Deering

Prepared by the
Deering Planning Board

with the assistance of the
Central New Hampshire
Regional Planning Commission
329 Daniel Webster Highway
Boscawen, NH 03303
(603) 796-2129

Adopted on April 10, 1991 by the
Deering Planning Board
following a public hearing s
on November 14, 1990 and January 9, 1991

Introduction

The Master Plan is a policy document developed by the Planning Board to provide the initiative with which to direct future land use and municipal actions in a coordinated and ideal manner.

The Goals and Objectives statement is the focal point of the Master Plan. Goals and Objectives provide an overall policy framework to help shape the other elements of the Master Plan. When information is gathered for the various Master Plan elements, the Goals and Objectives are consulted to formulate an action plan to answer the question: "Where do we go from here?".

Goals are general statements describing ideal conditions. Objectives describe tangible projects and programs which would help to achieve the goals. Therefore, objectives are more easily measured than goals. The remaining elements of the Master Plan contain the analysis and recommended strategies needed to achieve the conditions desired and articulated by the Goals and Objectives.

The Deering Planning Board wanted to have as much input as possible from the residents of Deering prior to developing the Goals and Objectives. Having this input in advance gave the Planning Board an excellent starting point for developing its policies.

In 1988, a Master Plan Questionnaire was mailed to each Deering resident asking for responses to specific questions dealing with land use and municipal issues. The Planning Board received 348 out of 770 questionnaires mailed, or a response rate of 45%.

1. Goal: Maintain Deering's attractiveness as a rural community.

Objectives: Balance growth with conservation purposes in land use controls.

Revise the land use regulations to manage and protect water resources.

Protect the Deering Reservoir and its natural, scenic, and recreational benefits.

Include conservation areas in the future land use plan, and within development proposals.

Incorporate small scale business and home business into the future land use plan.

Encourage agriculture and related land uses throughout the Town.

Establish a historic district commission and develop regulations for the historic district(s).

2. Goal: Encourage the growth and diversification of the local economy, consistent with the character of the community, to provide local employment opportunities and to broaden the tax base of the Town.

Objectives: Establish a commercial zone(s) within the Town.

Keep abreast of plans for a Route 9/202 Hillsborough by-pass to anticipate possible opportunities for commercial development related to improved transportation access.

The Town should seek and support the development of land uses which result in higher tax revenues and lower service costs to the community.

Encourage small scale businesses to locate in Deering which will enhance the Town's rural nature and which will require minimal infrastructure improvements.

Investigate potential water and sewer service connections to the existing Hillsborough utilities which may provide for larger scale business development, particularly in areas which may have good access to the proposed Hillsborough Route 9/202 by-pass.

Keep abreast of activities at the former Hawthorne College airport in West Deering and its potential for local economic benefits.

3. Goal: Provide for the smooth, safe, and efficient movement of traffic through Town and between different areas of Town.

Objectives: Develop a long range plan for road improvements and new roads to efficiently serve existing and future residential areas of Deering.

Strip development along highways should be discouraged. Most commercial and industrial development should be clustered to provide access control, off street parking, visual buffers, and landscaping.

Develop a policy for development on Class VI roads in accordance with RSA 674:41 to provide for public safety and to prevent unnecessary expenditures of towns funds for construction and maintenance.

Develop a suitable access for West Deering during flooding periods. Until such an access is provided, public safety should be considered with regard to any development proposals.

Participate in the design process for the proposed Route 9/202 Hillsborough by-pass to provide optimal transportation access for Deering.

4. Goal: Preserve, protect, maintain, and enhance Deering's water resources for future generations.

The Town should continue to actively participate in and support the activities of the Contoocook River Greenway Coordinating Committee to plan and coordinate a program to protect the unique river amenities of the Contoocook.

The Town should work with landowners to protect the rivers from further development. This could include the purchase or donation of all or part of the development rights of land in close proximity to the rivers.

Walking paths should be developed along as much of the river frontage as is feasible. Furthermore, the paths should be connected into a town wide recreation path/trail system to interconnect open space amenities.

Access to the Contoocook River for canoeing, fishing, and swimming should be improved. This should be coordinated with other nearby communities and State or Federal agencies.

Regulate land use on or adjacent to wetlands and aquifers to provide high water quality, to maintain water supplies, to provide flood storage, and to protect wildlife habitat.

The water quality of Deering Lake should continue to be monitored. Good water quality in Deering Lake is essential to maintain it as a valuable recreational asset.

Monitor legislative efforts to develop shoreline protection regulations for great ponds and develop or adjust Town land use regulations in accordance with any resulting new State requirements.

Work with State authorities to improve access, safety, supervision, and signage at the State-owned public area at the south end of Deering Lake. A straightforward, enforceable policy on swimming at this area should be developed.

5. Goal: Provide for safe and decent housing for a broad range of persons. Housing should be diversified in terms of needs and desires, price, size and type of units, and locations within the overall guidelines of the Master Plan and service constraints of the Town.

Objectives: The land use regulations should be reviewed and amended as necessary to ensure that neither multi-family nor manufactured housing is effectively prohibited in Town. The accommodation of cluster housing by Town land use regulations should be reviewed.

The Town through its boards, commissions, regulations, and other available means should encourage the rehabilitation and upgrading of existing housing as a cost effective method to improve the quality of the Town's housing stock.

The Planning Board should investigate development bonuses and incentives where a developer is providing housing for young families or elderly residents so that neither group is priced out of Town. Rental apartments are recognized as an important part of the overall housing mix and lot size requirements should be such that apartments will be developed.

Encourage rental apartments in large, older homes to provide housing opportunities which respect Deering's rural character and provide economical use of property.

6. Goal: Ensure that new development bear its fair share of the costs of public facilities and services. Existing development should not subsidize additional facilities and services required to accommodate new development.

Objectives: Town ordinances, regulations, and policies should be clarified to ensure that the Planning Board, Zoning Board of Adjustment, Conservation Commission and other Boards and Commissions have the authority to require that proponents of new or enlarged developments submit or pay for complete impact assessments.

Town Boards and Commissions should regularly evaluate proposals before them for impacts on public facilities and services.

A development impact assessment system should be investigated and instituted within the constraints of New Hampshire laws.

The Planning Board should develop a six year schedule of capital improvements, to be updated annually, to show when new or improved public facilities should be built and how the projects will be funded.

***POPULATION AND ECONOMICS ELEMENT
Master Plan***

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POPULATION AND ECONOMICS

Population Growth Patterns

Population growth patterns for Deering, the CNHRPC Region, and the State of New Hampshire since 1960, including population projections through the year 2010, are shown in the charts to the right. During the 1960 to 1980 period, Deering's population increased by a total of 696 persons with an annual growth rate of 10.6%.

The annual growth rate for the CNHRPC Region and the State of New Hampshire during the same period was 2.3% and 2.7% respectively.

Based on the latest projections by the Office of State Planning (OSP), Deering will continue to grow through the year 2010 at an annual rate of 9.4%. The projected annual growth rate over the same period for the CNHRPC Region is 3.2% and 3.1% for New Hampshire.

Income Characteristics

Table 1 compares 1970 and 1980 census data for family income in the Town of Deering. The New Hampshire Department of Employment Security reported that the 1979 median family income in Deering was \$ 20,500 and the average family income was \$ 21,192.

Table 1
Family Income - Count of Families

	<u>1970</u>	<u>1980</u>	<u>change</u>
Less than \$ 5,000	23	9	- 14
\$ 5,000 to \$ 9,999	64	36	- 28
\$10,000 to \$14,999	30	50	20
\$15,000 to \$24,999	17	100	83
\$25,000 to \$49,999	6	74	68
\$50,000 and over	0	9	9

Source: US Census, 1970 and 1980.

Labor Force and Employment

Table 2 shows the changes in civilian labor force in Deering between 1970 and 1980. For the total working age population, civilian labor force as a percent of total increased from 50% to 64%. The number of employed persons in Deering increased from 193 in 1970 to 521 in 1980. The number of employed males increased by 131% whereas the number of females employed increased by 251%. The breakdown of persons employed by industry is presented in Table 3.

Table 2
Employment Status - Count of persons 16 years old and over

	<u>1970</u>	<u>1980</u>	<u>Change</u>
Male Civilian Labor Force:			
Employed	130	300	170
Not Employed	7	25	18
Not in Labor Force	47	82	35
Female Civilian Labor Force:			
Employed	63	221	158
Not Employed	27	6	- 21
Not in Labor Force	114	178	64
TOTAL Civilian Labor Force:			
Employed	193	521	328
Not Employed	34	31	- 3
Not in Labor Force	161	260	99

Sources: US Census: 1970 and 1980.

Table 3
Industry - employed persons 16 years old and over

	<u>1970</u>	<u>1980</u>	<u>Change</u>
Agriculture, Forestry, Fisheries and Mining	6	9	3
Construction	9	37	28

Manufacturing: non-durable goods	33	51	18
durable goods	72	129	57
Transportation	4	6	2
Communications: other public utilities	0	28	28
Wholesale Trade	0	7	7
Retail Trade	44	61	17
Finance, Insurance, Real Estate	4	25	21
Business and Repair Services	4	30	26
Personal, Entertainment, Recreation Svcs.	0	6	6
Professional Services: Health	0	55	55
Education	12	40	28
Other Profession	0	21	21
Public Administration	5	16	11
TOTAL	193	521	328

Sources: US Census: 1970 and 1980.

Educational Characteristics

Table 4 shows the school enrollment in Deering increased 106% from 1970 to 1980. While the number of students in high school has increased more than five times, the number of higher education students has increased four times.

Table 4
School Enrollment

1970 1980 Change

Nursery School	0	8	8
Kindergarten & Elementary (1-8yr)	105	134	29
High School (1-4yrs)	12	78	66
College	7	36	29
TOTAL	124	256	132

* Persons 3 years old and over enrolled in school.

Source: U.S. Census: 1970 and 1980.

Table 5 presents a 1970 to 1980 comparison of years of school completed for persons 25 years old and over. Although the number of persons who have completed elementary education increased 8%, those who have completed high school increased by 110%. Moreover, those who have completed one to three years of higher education increased by 82, while those who have taken four or more years of higher education has increased four times.

Table 5
Years of School Completed*

1970 1980 Change

Elementary (0 to 8 years)	72	78	6
High School: 1 to 3 years	56	65	9
4 years	126	265	139
College: 1 to 3 years	40	73	33
4 or more years	33	130	97

* Count of persons 25 years old and over.

Source: U.S. Census: 1970 and 1980.

Population Mobility

The mobility of the population in Deering changed from 1970 to 1980 as shown in Table 7. In 1970, 31% percent of persons five years and older lived in the same house as they did in 1965. In 1980, this increased to 48%. Persons moving to Deering from another state increased by 86 persons but dropped in percentage from 47% to 32%.

Table 8
Residence 5 years Ago*

1970 1980 Change

Same House	156	471	315
Different House:			
Same County	165	248	83
Other County	68	70	2
Different State:			
Northeast	99	152	53
North Central	7	12	5
South	0	28	28
West	0	0	0
Abroad	0	0	0

* Count of persons 5 years and over.

Source: U.S. Census: 1970 and 1980.

Conclusion

Deering is projected to experience an annual population growth of 9% through the year 2010. This is higher than the projected annual growth rate for both the CNHRPC Region at 3.2% and New Hampshire at 3.1%. The 1990 Census data is expected to support this population growth although the actual growth rates may need to be adjusted.

Although Deering has a strong labor force, the Town has a limited economic base and is commonly referred as a "bedroom" community. A majority of its residents travel to out-of-town work places with a commuting time of up to one hour.

Education and high school enrollment continued to remain strong as high school enrollment multiplied by $6^{1/2}$ times (from 1970 to 1980). In addition, the percentage of residents seeking and graduating with a college level education increased 300%. This suggests that Deering not only has a strong labor force, but a well educated labor force capable of meeting today's economic market needs.

Finally, even though Deering has a limited economic base, the Town has that living environment to attract new residents as shown under Population Mobility. From 1970 to 1980, Deering's population increased by 463 persons of which 20% came from out of state.

*TRANSPORTATION ELEMENT
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Table of Contents

<i>Transportation Master Plan Overview</i>	1
<i>Town Roads</i>	2
Introduction.....	2
Inventory of Roads and Road Classes.....	2
Road Usage Within Town - Traffic Study Analysis.....	5
Overview of Traffic Count Data	5
Traffic Count Observations and Comments	5
Summary.....	9
Natural Barriers and Geography Influence Deering's Road Network	10
<i>Unsafe or Dangerous Sections of Road</i>	11
<i>Roads Impact Assessment Fee</i>	13
<i>Philosophies of Transportation of Hazardous Waste</i>	13
<i>Deering Airport</i>	14
Operational History.....	14
Present Services Provided.....	14
Airport Approach Plan.....	14
The Airport Future	15
<i>The Hillsboro Bypass</i>	16
The History.....	16
Questionnaire Results	17
Planning for the Future	17
Criteria for Establishing Bypass Corridors in Deering	18
Minimize Impacts to Residences	18
Town Soils and Wetlands Consideration	18
Four Season Floodproof Route for West Deering.....	19
Creation of a Sensible Commercial Area	19
Construction Building Materials	20
USGS Seismic Reflection Studies of Longwoods Road.....	20
Summary.....	20
<i>The Future</i>	21
Summary and Impacts	21

<i>Closing</i>	22
<i>Appendix and List of References</i>	23
Questionnaire Results	23
Questionnaire Summary	28
Transportation Questionnaire Results	28
Traffic Counts Report of Stephen Pernaw	31
USGS Seismic Reflection Studies of Longwoods Road	31
Color Coded Maps	31
National Flood Plain Maps	31
OSP Projected Town Growth	31
CNHRPC Transportation Report	31
Previous N.H. DOT Bypass Routes	31
N.H. DOT Design Phase Flow Chart	31
Town of Deering Master Emergency Plan	31
Model Airport Zoning Ordinance	31

Transportation Master Plan Overview

The Transportation Master Plan will incorporate various surveys, traffic counts, regional studies, numerous maps and recommendations for safety. These information sources will help to characterize the Deering transportation system, which is composed of three major components.

The first component of the transportation plan is the Deering Road network. The road network is reviewed according to usage and classification of its individual roads and bridges. Traffic counts will be analyzed to determine traffic patterns and flows. Recommendations in the form of a summary conclude this section.

The second component of the plan addresses the Deering Airport. From a future planning standpoint it will be important to identify what types and levels of air traffic this airport supported in the past. State of N.H. information on approach rights of way will also be a part of the plan. A model airport zoning ordinance is included as an appendix.

The third major part of the future transportation planning process is the Proposed Hillsboro Bypass. This one element of the transportation master plan will affect the Town of Deering and the area in many ways. This report will help to identify planning options, impacts and future town activities related to possible northern and southern bypass routes.

It is the intent of the transportation plan to inventory our present transportation resources, determine existing demands, define future system needs and provide an effective transportation planning vehicle for the Town of Deering.

Town Roads

Introduction

Deering is composed of various roads and travel corridors. The Town Roads Inventory subsection will identify and classify the various town roads. A pull out map and tabular listing is contained within this subsection to identify the classes of town roads and the start and finish of each.

Traffic counts were conducted in various parts of Deering during the summer months of 1988. This data forms the basis for future planning activities and recommendations and is contained in section 2.3.

A major factor which has played an important role in the structuring of Deering's present transportation system has been the natural geography of the area. Natural barriers pose significant obstacles to "line of sight" transportation in Deering. These natural factors must be included in the future planning of Deering's transportation system.

Inventory of Roads and Road Classes

Presently, Deering contains (1) Class II highway (N.H. Rt-149), (42) sections of Class V Town Maintained roads and (11) Class VI (No Longer Town Maintained) sections of road. The road network which we all depend on for shopping, medical services, and for transportation to our jobs is the product of years of evolution. Many of our present day roads were once vital thoroughfares of past transportation and commerce.

Starting out as horse and wagon travel routes, these roads have evolved to support our present traffic needs. Many roads were "modernized" to support the automobile while others, due to lack of use and lack of town maintenance, fell into neglect and became the nonmaintained Class VI roads of Deering. So, as one can see, our present road system is the product of a form of transportation "natural selection".

A comprehensive tabulation of town road resources is provided in Table #1, complementing Table #1 is Map #1. The information presented on Map #1 utilizes the United States Geological Survey (USGS) survey data of 1987 and the maps contained in the mechanical traffic count report of S. Pernaw (attached to Map #1. The USGS maps form the basic map element for the Deering Master Plan.

Table 1
1988 Deering Road Inventory and Usage

NAME OF ROAD	LIMITS	CLASS	USAGE
BARTLETT HILL ROAD	RT-149 TO OSTRWSKI'S	V	LOCAL
BARTLETT HILL ROAD	OSTRWSKI'S TO FRANCESTOWN RD	VI	CLOSED
BENNINGTON DEPOT RD	BENNINGTON T.L. TO 2ND NH TRNPK	V	TOWN ARTERY
BLUEBERRY HILL CIR.	CIRCLE OFF BENNINGTON DEPOT RD	V	LOCAL
BOWEN SCHOOL ROAD	RT 149 TO OLD COUNTY RD	V	LOCAL
CAMP ROAD	RT-149 TO EAST DEERING ROAD	V	LOCAL
CORL ROAD	EAST DEERING RD TO WEARE LINE	V	FEEDER
CLEMENT HILL ROAD	RT-149 TO PETER WOODS HILL RD	V	TOWN ARTERY
CODMAN HILL ROAD	OFF OLD BENNINGTON ROAD	VI	CLOSED
CROSS ROAD	RT-149 TO EAST DEERING RD	V	TOWN ARTERY
DICKEY HILL ROAD	RT-149 TO CLEMENT HILL RD	V	LOCAL
DONOVAN ROAD	2ND N.H. TRNPK TO ROBIN HILL FARM	V	LOCAL
DRISCOLL HILL RD	EAST DEERING RD TO TUBBS HILL RD	V	FEEDER
DUDLEY BROOK ROAD	EAST DEERING RD TO WEARE TOWN LINE	V	FEEDER
DUDLEY POND ROAD	NORTH ROAD TO HENNIKER TOWN LINE	V	FEEDER
EAST DEERING ROAD	RT-149 TO WEARE LINE	V	TOWN ARTERY
FALLS ROAD	OLD COUNTY ROAD TO HUNTERS	V	LOCAL
FALLS ROAD	HUNTERS TO 2ND NH TRNPK	VI	CLOSED
FARRELL ROAD	RT-149 TO RESERVOIR RD	V	FEEDER
FISHER ROAD	DEERING CENTER TO POLLING HOME	V	FEEDER
GLEN HILL RD	EAST DEERING RD		
	TO PETER WOODS HILL RD	V	FEEDER
GREGG HILL ROAD	DEERING CENTER TO RUSH HOME	V	LOCAL
GREGG HILL ROAD	RUSH HOME TO TUBBS HILL ROAD	VI	CLOSED
HART FARM ROAD	OLD COUNTY TO OLD COUNTY	V	LOCAL
HEDGEHOG MTN RD	OLD COUNTY ROAD TO BELLIVEAU'S	V	LOCAL
HEDGEHOG MTN RD	BELLIVEAU DRIVEWAY TO LONGWOODS RD	V	CLOSED
HOLTON CROSSING RD	2ND NH TRNPK TO LONGWOODS RD	V	TOWN ARTERY
HOMESTEAD ROAD	RESERVOIR RD TO THE HOMESTEAD	V	LOCAL
HOMESTEAD ROAD	THE HOMESTEAD TO PLEASANT POND RD	VI	CLOSED
HOMESTEAD ROAD	PLEASANT POND RD		
	TO BARTLETT HILL RD	VI	CLOSED
LONGWOODS ROAD	HILLSBORO TL TO HOLTON CROSSING RD	V	TOWN ARTERY
MANSONVILLE ROAD	RT-149 TO UNION STREET	V	TOWN ARTERY
MINE ROAD	NORTH RD TO HENNIKER TL	VI	CLOSED
NORTH ROAD	CLEMENT HILL RD CLEMENT HILL RD	V	TOWN ARTERY
OLD BENNINGTON RD	2ND NH TRNPK TO BENNINGTON TL	V	TOWN ARTERY
OLD COUNTY LANE	OLD COUNTY RD TO OLD COUNTY RD	V	LOCAL
OLD COUNTY ROAD	RT-149 TO FRANCESTOWN TL	V	TOWN ARTERY
OLD FRANCESTOWN RD	PLEASANT POND RD TO _____ HOME	V	LOCAL
OLD FRANCESTONW RD	_____ HOME TO BARTLETT HILL RD	VI	CLOSED
OLD HENNIKER RD	EAST DEERING ROAD TO WHITTIER'S	V	LOCAL
OLD HENNIKER RD	WHITTIER'S TO HENNIKER TOWN LINE	VI	CLOSED

Table 1 (Cont'd)

1988 Deering Road Inventory and Usage

NAME OF ROAD	LIMITS	CLASS	USAGE
PETER WOODS HILL RD	E. DEERING RD TO GLEN ROAD	V	TOWN ARTERY
PLEASANT POND RD	RT-149 TO FRANCESTOWN TL	V	TOWN ARTERY
RESERVOIR ROAD	DEERING CENTER TO OLD COUNTY ROAD	V	TOWN ARTERY
RT-149	HILLSBORO TL TO WEARE TL	II	NH ARTERY
SECOND NH TRNPK	FRANCESTOWN TL TO ANTRIM TL	V	TOWN ARTERY
SKY FARM ROAD	RESERVOIR RD TO FRANCESTOWN TL	V	TOWN ARTERY
TUBBS HILL ROAD	DICKEY HILL RD TO CONTEL FACILITY	V	LOCAL
TUBBS HILL ROAD	CONTEL FACILITY TO DRISCOLL HILL RD	V	CLOSED
TUBBS HILL ROAD	DRISCOLL HILL RD TO GLEN RD	V	LOCAL
UNION STREET	LONGWOODS ROAD TO HILLSBORO TL	V	TOWN ARTERY
WOLF HILL RD	OLD COUNTY RD TO FISHER ROAD	V	LOCAL
WOLF HILL RD	FISHER ROAD TO HIS MANSION	V	CLOSED
WOLF HILL RD	HIS MANSION TO RT 149	V	LOCAL

USAGE DEFINITION KEY:

N.H. ARTERY = State Class II highway, carries travellers both local and regional, between other surrounding towns, N.H. DOT maintained and regulated.

TOWN ARTERY = A road which carries traffic from feeder roads and supports traffic into and out of town, acts a through town road for out of town travellers. A road which will see increased traffic with general regional and town growth.

FEEDER = A road which feeds traffic into an arterial road, does not carry out of town travellers, but may carry the majority of traffic associated with nearby or adjacent development. A road which will see an increase in traffic only as a result of adjoining or abutting development.

LOCAL = A quiet road which services a small area, provides no access in or out of town and probably will not carry significant traffic in the future. Will only see an increase in traffic usage when development is on that road. Local roads service primarily travellers that live on that road.

Road Usage Within Town - Traffic Study Analysis

Overview of Traffic Count Data The transportation committee conducted traffic counts on what are considered key roads in the town. Stephen Pernaw of Tilton, N.H. conducted the counts. The survey provided some interesting results. Most surprising was that traffic counts were higher than expected.

The overall traffic patterns of Deering are based on principally two driving activities; driving to work and driving to other towns for services. Deering presently sees 80% (Office of State Planning (OSP) value) of the town's working age population commute to other towns for employment. This single factor defines weekday peak traffic loads on many Deering roads. Other activities such as the "trip out of town" for post office service, the weekly visit to the dump and weekend shopping for groceries account for much of the weekend travel.

The 14 different sites of traffic counts are analyzed in the next section. Analysis provides peak traffic loads and for possible areas or regions serviced. Future projections and recommendations have been made based on the available data.

Traffic Count Observations and Comments

SITE #1 EAST DEERING ROAD NORTH OF RT-149

A 24 hour weekday and weekend count was conducted. The peak traffic count for this location was on a weekday with 290 counts per day and a peak traffic count per hour of 35 on Sunday afternoon. The major pattern of traffic is trips to adjoining towns for services on weekends specifically Saturday morning and the return Saturday afternoon. Weekday traffic patterns are clearly arranged around commuting to and from work. A block of commuters leaves between 6 and 8 a.m. and returns between 4 and 7 p.m.. These commuters are coming from other parts of town and going to employment in Concord or they live in North Deering and are commuting to the East on Route 149. East Deering Road near the intersection with Route 149 has sufficient capacity to accommodate present and future traffic for some time to come. Proper safety signage should be placed on the corner of East Deering Road and Route 149. Proper signage should be placed on Route 149 indicating a dangerous "blind" intersection is ahead.

SITE #2 CROSS ROAD SOUTH OF EAST DEERING ROAD

A 24 hour single weekday traffic count was conducted on the Cross Road. A traffic pattern similar to East Deering Road was noticed. Weekday commuters seemed to travel between the hours of 6 and 8 a.m. and between 4 and 7 p.m. Cross Road acts as a feeder into the northern part of East Deering Road. Traffic travelling to and from Henniker and Concord use this road. Clearly Cross Road supports traffic in great excess to the amount of traffic generated by people living on Cross Road. Cross Road has the capacity to handle current traffic and future traffic demands. In the future this road will see more through traffic, since it acts as a good north - south short cut from East Deering Road to Route 149.

SITE # 3 ROUTE 149 WEARE TOWN LINE

Weekday traffic loads of about 1100 counts are occurring at the Weare Town Line and a peak hourly traffic count of 112 between 5 and 6 p.m.. Route 149 is the town "main road", a Class I Highway according to N.H.DOT classification. This road carries just about all town drivers at some point in their trip. Route 149 should be defined as the most important road in town. Safety, capacity, and impact to the town when the population increases are highlighted in Section (8.0) of the plan. This section of Route 149 is adequate for the present and near future demands. Sight distances around corners and over hills in some areas may require additional signage as the area grows.

SITE # 4 ROUTE 149 HILLSBORO TOWN LINE

Traffic counts were performed on both weekend and weekday periods. Typical weekday traffic totals for a 24 hour

period are about 2650 counts per day with a peak load of 255 counts per hour between 4 and 5 p.m.. Again peak traffic relates to commuter traffic as with other counter locations. These weekday figures do not include school related traffic, since measurements were conducted in the summer when school was not in session. Presently late school buses are not provided for after school activities. The afternoon family shuttle run to school will add to the total late afternoon traffic counts. Presently Route 149 is the most heavily travelled road in town. Deering citizens must negotiate two dangerous intersections outside of Deering in Hillsboro on the way to the school, employment or services. These are; the Rt-202/9 intersection with Route 149 and the Mill Street intersection on the south side of the Contoocook River. As the surrounding area grows and as the renovations to the old mill buildings are completed these intersections will become more congested. Resulting in a reduction in safety and transportation convenience. The elimination of these deteriorating conditions may require a southern bypass route. (refer to the Bypass section of the master plan).

SITE # 5 RESERVOIR ROAD AND FARRELL HILL ROAD

Upon inspection of the weekend traffic count, it is easy to see the large difference in Saturday traffic versus weekday traffic. Weekday traffic patterns are predictable and conform to the normal commuting patterns of other town roads. Saturday traffic is almost entirely due to reservoir recreational traffic. The weather played an important role in determining the traffic pattern, Saturday counts were conducted on a very hot and sunny day, while Sunday counts reflected little recreational reservoir traffic, since the day was very rainy. Over a two fold increase (about 175 additional counts) in traffic were solely due to reservoir recreational traffic.

$$\begin{aligned}175 \text{ counts} &= 78 \text{ cars making a round trip} \\&\text{assume 75\% of the recreational traffic parked at the reservoir} \\78 \text{ cars} * 75\% &= 58 \text{ cars parked at the reservoir}\end{aligned}$$

Actual parked car counts on that hot Saturday were 63 cars at about 1:00 p.m.. The parked cars had occupied all available lot parking and were on both sides of the road to the southern and northern private roads servicing seasonal camps along the reservoir. Parking reduced visibility and contributed to unsafe conditions for the playing children in the vicinity of the reservoir.

Reservoir Road has the capacity to handle the traffic flow, but safe parking is a concern on those days of peak reservoir usage. Clearly as the town and surrounding areas grow this will become more of a problem. Future planning should include adequate signage and the proper notice of recreational traffic and pedestrians ahead.

SITE # 6 RESERVOIR ROAD AT RT-149

The counts taken on a weekday are predictable and dovetail with other traffic patterns in town. The counts do not reflect the additional traffic due to weekend recreational use of the reservoir. Further reducing counts is the Farrell Hill "short cut" to the East. People who come from the south of Farrell Hill Road on Reservoir Road typically use Farrell Hill Road to reach Route 149 East.

The area on Route 149 is posted and the speeds are reduced for the intersection and town hall ahead. The signage and posted speeds seem to be adequate for the existing and future traffic and safety needs.

SITE # 7 FARRELL HILL ROAD

Farrell Hill Road provides a short cut to the east, and for people using Reservoir Road. The road only has three houses on it and is more than capable to handle the 96 counts per day. An unsafe down hill intersection with Pleasant Pond Road, has recently been posted with yield signs, greatly adding to safety. As traffic increases and the town grows, this road will require some improvement in the area near the Pleasant Pond Road intersection.

SITE # 8 CLEMENT HILL ROAD EAST OF RT-149

Clement Hill Road carries the traffic to and from Hillsboro for a large section of North Deering. Development in the northern part of Deering will increase traffic on this road. Traffic counts on Clement Hill Road average 303 per day, peak traffic counts reflect typical commuting patterns. This road is capable of supporting the present and future traffic in the area. Future improvements to the road will depend upon development in the northern section of Deering (ie.

paving gravel sections of the road).

SITE # 9 MANSONVILLE ROAD WEST OF RT 149

Traffic patterns here reflect commuting to and from work with an average daily count of 251 per day. Mansonville Road provides a connection from West Deering and Longwoods Park to areas to the east. From the counts taken at Longwoods Road North of the park (site 11), we can determine that most people do not use Mansonville Road to get to Route 149 (since they are going to Hillsboro). The average count at site 11 of about 1000 per day, the bulk of these travellers use Mill and Union St in Hillsboro to get to Route 149. Mansonville road sees only about 25% of the traffic at Site 11. The actual traffic generated by households on Mansonville Road is small, the bulk coming is from the west and through count site 11. The majority of people (about 750 counts per day) are coming from the west are going to Rt-202 and Route 9 via Mill and Union Streets. As mentioned previously the intersection of Mill Street and Route 149 is a dangerous one. Future growth will place additional demands on Rt-149, Rt-202/Rt-9 and the Mill Street intersection area. The present road system may not adequately and safely handle current levels of traffic. Any bypass corridors

should take into account the traffic patterns for this area and try relieve some of the problems. Local commuting patterns must be considered in the bypass corridor selection and interchange definition.

Mansonville Road presently is more than sufficient to accommodate the traffic on it. Normal growth in the future should be accommodated without changes to the existing road.

SITE # 10 FISHER ROAD WEST OF ROUTE 149

Fisher Road traffic counts average about 300 counts per day. Fisher Road supports traffic generated by Zoski Road and Wolf Hill Road with the majority coming from Zoski Road. Since counts were conducted during the summer months, these probably represent the worst case traffic for this road. Absence of summer residents will significantly reduce the traffic activity on Fisher Road. The present road seems adequate for the traffic supported and projected.

SITE #11 LONGWOODS ROAD NORTH OF THE TRAILER PARK

Average daily traffic counts were surprising high in this area, but if one stops to think about Longwoods Park and the number of residences, the counts are not out of line. Weekday and weekend traffic patterns are similar in total quantity, only a slight shift in the early morning travel time is obvious. The Longwoods Park traffic does not significantly use Mansonville Road for gaining access to Route 149 (only about 25% or 250 counts). Most traffic travels along the river to reach Route 149 and Route 202 and Route 9. Longwoods Road itself is capable of carrying the daily traffic.

SITE # 12 DICKEY HILL ROAD EAST OF RT-149

Dickey Hill Road is a very lightly travelled road and has an average daily traffic count of only about 100 cars a day. This is primarily due to the fact that most travellers of North Deering use Clement Hill Road for access to Route 149 west to Hillsboro. People commuting to the east travel Peter Wood Hill Road and Glen Road. The primary traffic on Dickey Hill Road is associated with the people that live on Tubbs Hill Road and Dickey Hill Road. Present travel patterns are not likely to change and if development is not directly on Tubbs Hill Road or Dickey Hill Road this road should enjoy the quiet of having little through traffic.

SITE # 13 OLD COUNTY ROAD WEST OF RT-149

Old County Road showed a Sunday traffic count of 313 and 364 on Saturday and 448 on Friday. Old County Road was under construction at the time of the counts, some additional counts were due to construction vehicles. Weekend counts were not significantly different from weekday counts so the errors due to construction vehicles are probably not significant.

Old County Road supports traffic generated by most of South Deering and also handles through traffic coming from or to Francestown. Old County Road was significantly improved during the summer of 1988, improvements provide an added degree of safety and capacity. Further improvements are defined in the capital improvement plan which will

remove unsafe road conditions near Wolf Hill Road.

SITE # 14 SECOND N.H. TURNPIKE AT THE ANTRIM T/L

The traffic counts here were surprisingly high - nearly 1000 counts per day occurred at the bridge over the Contoocook. The Second N.H. turnpike supports the whole of West Deering, in addition to through traffic from Francestown and Bennington as well as traffic from Longwoods Park. The Second N.H. Turnpike provides important access to the Hawthorne-Feather Airport. Proposed future airport usage and general development in West Deering should consider the impact to the aging bridge across the Contoocook River into Antrim. Rebuilding or improving this bridge may require a substantial expenditure of funds.

SITE # 15 PETER WOOD HILL ROAD AT DUDLEY BROOK

A week long traffic count associated with the Shepherd's Crossing cluster development was conducted. Traffic patterns were as expected, peak activity involved groups of people traveling to work between 6 and 9 a.m. and returning 4 to 6 p.m. The northeastern terminus at the Weare line acts as a collector for traffic from East Deering Road and Dudley Brook Road. Current traffic levels at the Dudley Brook bridge plus additional traffic of Shepherd's Crossing will put the bridge at 100% capacity (Dubois and King analysis for the Planning Board on Shepherd's Crossing Proposal 1988). The bridge travel surface is considered marginal for future traffic increases after Shepherd's Crossing.

Future subdivisions and developments should be investigated for impacts to this bridge. In addition to the marginal bridge in Deering two "one lane" bridges exist in Weare. Two town involvement should be used in cases when impacts can adversely affect the other town. The Regional Planning Commissions may assist in these areas. Legislation enabling intertown review of regionally significant development is before the N.H. legislative body. If this legislation is approved the Planning Board will have legal authority to work with other towns in these matters. Presently Planning Boards do not have the legal authority to work with other towns in these matters.

Summary In summary, the traffic counts provided the Town of Deering with a gauge of local traffic levels. This information is useful in the consideration of future development in town. In addition, the information may be useful in identifying locations in town where roads should be plowed and sanded first to aid in the commuters travel. Further counts have been solicited on Pleasant Pond Road, Peter Woods Hill Road west of East Deering Road and Old Bennington Road. These count requests were provided to the Central New Hampshire Regional Planning Commission.

The area of Deering that experiences the highest traffic levels is the area near Hillsboro, (Route 149 and the Longwoods Park area). The second highest area of daily traffic is on Route 149 at the Weare line. Issues relating to intertown and intratown travel on Route 149 need to be addressed in the Hillsboro bypass planning.

Another interesting fact was the volume of recreational traffic associated with the Deering Reservoir; clearly a present and worsening problem exists with parking at the reservoir. Steps should be taken to provide adequate signage in this area to avoid future accidents. Methods to limit the number of people may need to be investigated in the future if the traffic and safety issues become unmanageable.

Natural Barriers and Geography Influence Deering's Road Network

The natural geography of Deering creates barriers to quick and easy transportation through all of Deering. Natural barriers such as the Hedgehog Mountain, numerous mountain ridges and wetland areas make obtaining clear sight distances an impossibility. Since our roads are winding and hilly, many areas exist with limited site distance. Proper signage is necessary to provide adequate warnings to motorists unfamiliar with the area and terrain.

Upon review of the road network in Deering, it becomes obvious that mother nature played an important role in the determination of our present and past road network. In past years when Deering was a farming area, numerous east-west roads existed such as Hedgehog Mountain Road, Tubbs Hill Road, Homestead Road and Falls Road. These town roads heading east and west have fallen into the class VI category for numerous reasons, such as limited use and the difficulty in maintaining the roads. Large areas of town have become isolated over the years due to the loss of east-west roads. Route 149 now carries the bulk of east - west traffic, making the need for some of these roads unnecessary.

West Deering is isolated from the rest of the Town of Deering. Two roads (Falls Road and Hedgehog Mountain Road) connecting West Deering to the rest of Deering have been closed for numerous years. Today there is no direct route to go over the ridge between West Deering and Old County Road as in years past. Longwoods Road, and the Second New Hampshire Turnpike are prone to closing in times of high water. This essentially isolates West Deering from emergency and rescue vehicles. During the flood of 1987 people were evacuated on foot from West Deering since vehicular traffic was impossible. The easiest and probably least expensive manner to gain a flood proof escape route for West Deering would be to have access to a southern Route 149 bypass. Other alternatives include new bridges, raised road levels and the reopening of closed class six roads. All of these options would come at a considerable expense to the town.

The hilly terrain makes travel difficult in the winter and places additional burden on the towns Road Agent to make certain that these areas are properly plowed and sanded.

A further complication when travelling roads in this part of New Hampshire is the soil. Deering soils typically drain poorly and consist of glacial deposits. Frost heaves in the late winter and early spring months cause serious wear and tear on automotive chassis and suspension systems. Some parts of the road network become dimpled with craters and valleys, while other sections of road buckle and raise under the pressure of under road ice. This makes travel slow and expensive in addition to somewhat nerve racking. New road restorations should once and for all design these features out of the town road network.

Generally, what is required to eliminate this problem is multifold:

- * Removal of all under road poorly drained soils and rocks which will eventually be forced to the surface by the pressure of ground frost.
- * Replacement of poorly drained soils with a sand/gravel which drains well and is suitable for road sub-base.
- * Crushed bank run gravel and a two coats of asphalt.
- * Drainage is a key ingredient in the longevity of the road. Proper drainage and culverts must be provided to adequately handle water flow. Annual ditch cleaning should be conducted in the fall by the Road Agent to assure that fallen leaves and debris are not blocking drainage paths.
- * Periodic sealing is another way to further protect the towns restored roads. Sealing should be done to eliminate seepage paths where water can enter cracks in the road and freeze, further damaging the road surface through expansion pressures.

Geographical elements should be considered in future land use and planning regulations. Development should be monitored and engineered to not produce undo hardship on the towns road system. Proposed projects which required modification of existing town road networks which are limited by geographical elements should not be approved or approval should be subject to impact assessment fees (described in Section 4).

Unsafe or Dangerous Sections of Road

Due to an increasing population within the town and a majority of households with two commuters traveling to jobs outside Deering, many Class V town roads are experiencing an unprecedented amount of daily traffic. In an effort to enhance safety in demonstrated hazard areas, Police Chief John Mitchell has prepared an outline of additional signage requirements, as follows. He has also recommended three additional 25 m.p.h. traffic zones on East Deering Road, 2nd NH Turnpike and Reservoir Road.

BLUEBERRY HILL STOP SIGN at corner of N. Bennington Rd
YIELD SIGN needed coming out of Blueberry Hill onto Blueberry Hill after making loop

CORL ROAD STOP SIGN needed at corner of E. Deering Rd.

CAMP ROAD STOP SIGNS needed at both ends

CLEMENT HILL RD 35 MPH SIGN across from 25 MPH sign heading
to Rt 149 just before Dickey Hill Rd heading toward N. Deering Rd
25 MPH SIGN needs trees trimmed by Rt 149

CROSS RD 25 MPH SIGN by Casper Residence needs to be straightened and tree trimmed around it
Corner of Rt 149 needs trees trimmed for visibility

DICKEY HILL RD STOP SIGN needed at corner of Clement Hill Rd

DUDLEY POND RD STOP SIGN needed at Abbott's Corner
TOWN LINE SIGN needed coming from Henniker
35 MPH SIGN needed at town line coming from Henniker

DRISCOLL RD STOP SIGN needed at corner of E. Deering Rd
YIELD SIGN needed at corner of Glen Rd

E. DEERING RD TOWN LINE SIGN needs trees trimmed at Weare line
CAUTION CHILDREN SIGN at Zaricki Residence just before Driscoll Hill Rd needs to be reset

FARRELL HILL RD STOP SIGN needed at corner of Reservoir Rd
35 MPH SIGN needed at corner of Reservoir Rd heading toward Pleasant Pond Rd
35 MPH SIGN needed at corner of Pleasant Pond Rd heading toward Reservoir Rd

GLEN RD YIELD SIGN needed at corner of Peter Wood Hill Rd
35 MPH SIGN needed by corner of Peter Wood Hill Rd heading toward Driscoll Hill Rd
35 MPH SIGN needed just after corner of E. Deering Rd heading toward Peter Wood Hill Rd
STOP SIGN at corner of E. Deering Rd

HOLTON CROSSING STOP SIGNS needed at corner of 2nd NH Turnpike

LONGWOODS RD 35 MPH SIGN at corner of Holton Crossing heading toward Longwoods Park
35 MPH SIGN needs repainting at start of dirt section of Longwoods Park

MANSONVILLE RD 25 MPH SIGN needs replacement at Rt 149 end and moved closer to Rt 149
25 MPH SIGN heading toward Rt 149 at corner of Union St

MILL ST TOWN LINE SIGN at Hillsboro town lin 35 MPH SIGN at Hillsboro town line

N DEERING RD 35 MPH SIGN just past Abbott's Corner heading toward Rt 149
35 MPH SIGN just past Abbott's Corner heading toward Peter Wood Hill Rd

N. BENNINGTON RD TOWN LINE SIGN at Bennington town line
35 MPH SIGN at Bennington town line

OLD COUNTY RD 35 MPH SIGN heading toward Reservoir Rd
STOP SIGN at corner of Reservoir Rd and Sky Farm Rd
35 MPH SIGN heading toward Francestown
35 MPH SIGN halfway between Rt 149 and Reservoir Rd heading both ways
35 MPH SIGN heading towards Rt 149 at corner of Reservoir Rd and Old County Rd

PETER WOOD HILL RD
STOP SIGN at bottom of hill by E. Deering Rd
35 MPH SIGN at bottom of hill heading toward Glen Rd

PLEASANT POND RD 35 MPH SIGN at Francestown town line heading toward Rt 149
TOWN LINE SIGN at Francestown town line
35 MPH SIGN at corner of Rt 149 heading toward Francestown town line

SKY FARM RD STOP SIGN at corner of Reservoir Rd and Old County Rd
35 MPH SIGN at end of Old County Rd heading toward Francestown
TOWN LINE SIGN at Francestown town line
35 MPH SIGN at Francestown town line heading toward Old County Rd

2nd NH TURNPIKE TOWN LINE SIGN at Francestown line
35 MPH SIGN at Francestown town line
STOP SIGN at corner of N. Bennington Rd
35 MPH SIGN at start of dirt section by Meisser Residence heading toward Francestown town line

UNION STREET TOWN LINE SIGN at Hillsboro town line
35 MPH SIGN at Hillsboro town line

Roads Impact Assessment Fee

Impact assessment fees are a planning vehicle where towns can collect impact fees for expansion of town provided services which are directly required as the result of a new development. Other states such as California and Florida for some years have supported impact assessment fees. Local roadway expansions required for a particular subdivision may in part be funded by the developer. The town should consult with the Central New Hampshire Regional Planning Commission regarding the use and applicability of impact fees and impact fee regulations.

A good current example for the need of such a planning vehicle was on the 1989 town warrant. A petition item to bring Old Henniker Road (a class VI road) up to town standards was being voted upon. Under the impact assessment fee procedure, the developer along with other residents receiving direct benefits (increased property values, better roads or travel conditions) would be required to pay their fair share of the improvement costs. A formula is used to determine what the fair share is to the developer and other residents. In this way, the town does not expend town funds to benefit the developer at the expense of the towns taxpayers.

Philosophies of Transportation of Hazardous Waste

Transportation of hazardous wastes through the Town of Deering are addressed by the Deering Fire and Rescue Department. The Department has created a Master Emergency Plan for the town. The document covers what constitutes hazardous wastes and how they are to be handled in the event of an emergency. The document is attached to the Town of Deering Master Plan as an appendix.

Deering Airport

Operational History

Deering Airport initially started out as Feather Airport after its founder David Feather, then as a grass runway and taxiway. The airport grew and saw substantial improvements when it became associated with Hawthorne College. While under the control of Hawthorne College, it became the busiest airport in the state based on the number of take offs and landings. It was used primarily as a training airport, but also supported some general aviation activity.

In the past, when Bill Shea was operating the aviation department at the Hawthorne, the college grew and numerous airport improvements were made. Later Bill Shea, under California governor Ronald Reagan, became head of Aviation for the State of California. When Mr. Reagan became President of the United States, Bill assumed the Airports Administrator job at the FAA in Washington. Bill is now at The University of North Dakota in the Aviation Sciences Department. It is an interesting piece of history, how a local man became someone of national prominence.

The airport has seen some interesting aircraft in the past. Complementing two DC-3's were a fleet of small single engine planes. The DC-3's were eventually sold and, upon the last DC-3 take off from Deering Airport, one of the DC-3 aircraft crashed with no injuries. The plane was ruined but no damage occurred to property in town.

The airport grew and became one of the busiest in the state when Hawthorne was acquired by The Florida Institute of Technology. At this time the college aircraft consisted of a new fleet of 21 Piper Arrows and Warriors, a twin engine Navajo and 5 Hughes 300 series helicopters which were all used in training operations. During this period, a few private aircraft were also tied down at the airport. The college is presently closed and all training operations have been suspended. All training aircraft have been removed from the airport.

Present Services Provided

The airport presently is not being used as an educational airport. Financial problems have forced the closing of the college and suspension of aviation training. The airport is presently open to general aviation and has an uncontrolled approach.

The airport features a large hanger complex capable of accommodating one or two DC-3 size aircraft. Hanger facilities also provide numerous offices and meeting rooms. The airport still supports a UNICOM, a 3350 foot by 80 foot paved runway with perimeter lights for night landings and visual wind indicators. The runway is in need of resurfacing, but is still usable.

Airport Approach Plan

1. This airport approach plan, prepared under RSA 424:4, is based upon the ultimate development of a general aviation type airport with the following characteristics:

A.	PAVED RUNWAY	3350' x 80'
B.	PRIMARY SURFACE	3750' x 250'
C.	FIELD ELEVATION	600" MEAN SEA LEVEL (MSL)
D.	AIRPORT REFERENCE POINT	43 03' 42" (estimated) 71 54' 22"

E. RUNWAY DESCRIPTION: A paved landing area 3350' long by 80' wide whose centerline is on a Northerly-Southerly orientation, which is currently identified as Runway 01-19.

2. Federal Aviation Regulation (FAR) part 77 effective May 1, 1965, as amended, establishes the standards used to determine the limit of height of obstructions in and surrounding the airport.

3. Surface Definition:

A. Primary Surface: A horizontal surface longitudinally centered on the runway, the elevation of which is the same as the elevation of the nearest point on the runway centerline, the highest point of which is 600' MSL (estimated). The length of this surface is 3750' long and 250' wide.

B. Horizontal Surface: A horizontal plane 150' above the established airport elevation (600 MSL) is to be 750', the perimeter of which is constructed by swinging arcs of 5000' radii from the center of each end of

the primary surface and connecting the adjacent arcs by lines tangent to those arcs.

C. Conical Surface: A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 (1 foot vertically to 20 feet horizontally) for a horizontal distance of 4000'.

D. Approach Surface: Surfaces longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface (Runway 01-19). The inner edge of these surfaces are the same width as the primary surface, 250', and expand uniformly along the runway center line extended to a width of 1250' at a horizontal distance of 5000'. The slope of these surfaces are inclined at a ratio of 20 to 1 from the primary surface.

E. Transitional Surface: These surfaces extend outward and upward at right angles to the runway centerline and runway centerline extended at a slope of 7 to 1 from the edges of the primary surface and from the sides of the approach surfaces.

4. The height of all obstructions shall be limited to that height or elevation that will not protrude into or be above the elevation of the surfaces described in Section 3.

5. No provision of Section 3 shall limit the height of a structure or tree to less than 30' above the ground upon which it is located.

6. The Airport Reference Point (ARP) is located on the centerline of the runway approximately 1675' from each end of the runway and has an elevation datum of 600' MSL (estimate USGS datum).

The following are not part of a FAR, but are considered to be good planning guidelines:

1. The Building Restriction Line (BRL) is 125' from the centerline of the landing strip inside which no building may be constructed or aircraft or other objects stored or parked.

2. Acquisition of land in fee simple, or obtaining aviation easements will require the following:

(a.) remove existing obstructions

(b.) Control the height of objects in those areas where the controlling surface (plane) is less than 30' above the ground. The height 30' referenced here and in Section 5 should correspond to that height restriction stated in the local zoning ordinance.

The Airport Future

The future of the airport is uncertain at this time, due to the financial troubles of the college. The N.H.D.O.T would like to see Deering Airport continue to remain an airport. In recent years the State of N.H. has lost numerous airports due to more financially rewarding uses for airports. The continued existence of Deering Airport could be a benefit to local individuals and to future business in the area. Residents of the Town of Deering have free tie down for aircraft. This is a considerable savings for those who have aircraft. From a regional standpoint the use of Deering Airport is important, since the N.H. Aviation Master Plan conducted by Arthur D. Little shows that this area is over 20 miles from an airport if Deering Airport were removed. It is suggested that the Planning Board create an Airport Zone based on FAR, the model zoning ordinance contained in the Transportation Section Appendix and local citizen inputs.

The Hillsboro Bypass

The History

The Downtown Hillsboro Bypass could be the biggest single transportation issue to effect the Town of Deering. The History of the bypass goes back for more than 30 years.

In years past, when the population of Hillsboro was under 1800 people, public hearings and discussions with the N.H. Department of Transportation were held. The purpose of the hearings was to determine logical bypass corridors. A map showing possible bypass routes is shown on the following page.

Two primary routes were shown, a northern route and a southern route through Deering. The Northern route started near the eastern end of the improved section of Rt 202 and Rt 9. The proposed northern route then ran west and crossed School Street north of the High School. After crossing School Street it returned to Route 9 East of Bible Hill Road. After connecting to Route 9 at Sylvania, the route proceeded south to connect with Route 202 at the end of the improved section in Antrim. The previous route travels through the Sylvania plant and Valley Home Center. The section of bypass south of the Home Center is not heavily developed, but is in the flood plain.

After 30 years of development, the Northern route as proposed is no longer viable without significant disruption to residential, commercial and possibly school properties.

Two southern corridors were proposed through Hillsboro and Deering. The most westerly route now is blocked by the Hillsboro waste water treatment plant. The most easterly route is still open and starts at the end of the improved section of Route 9/202. The path proceeds southwest and crosses the Contoocook River near the Henniker town line. The path crosses Bear Hill Road near the Spring Meadow Farm. The corridor then crosses Route 149 at the Oxbow Camp Ground and Mansonville Road. The historical corridor then split when reaching Longwoods Road. Two corridor components then went northwest to Route 9 west of the Jackman Hydroelectric station and south to the end of the improved section of Route 202 in Antrim. The old bypass corridor has seen some development in Deering within its path. The areas of crossing at Route 149, Mansonville Road and Longwoods Park Road are now populated with homes. The southern route as it was initially proposed disturbs three residential areas. The southern route as it was initially proposed is not overly desireable due to its impacts to residences.

Historically, the bypass discussions included many topics of debate. A major factor in delaying the bypass and the definition of a formal corridor was political. Certain merchants on Route 9 organized an opposition against a bypass. Since at that time it was felt that downtown merchants along Route 9 and 202 would be financially impacted if traffic was rerouted around the downtown area. Time has changed this situation considerably as increased traffic flows have made commerce in the downtown area somewhat difficult. Parking and street crossing 30 years ago may have been safe and easy. Today parking and street crossing are slow and dangerous. This hurts commerce and poses safety issues since many travellers will not stop because it is inconvenient and dangerous.

Since Deering is updating its Master Plan the logical time to plan for the bypass is now. The need and the reality of the Hillsboro bypass has been with us for 30 years. The project is in the State's Ten-Year Highway Plan. Clearly the precedent has been established and it is now time to discuss the Hillsboro bypass and plan a corridor into the towns master plan.

Questionnaire Results

A transportation questionnaire was sent to residents of the town containing a series of questions on the bypass. A brief tabulated summary follows:

7) ARE YOU FAMILIAR WITH THE ISSUE OF A PROPOSED ROUTE 9/202 BYPASS?

- A) YES [100] B) NO [16] NO ANSWER [21]

8) IF YES, ARE YOU IN FAVOR OF A ROUTE 9/202 BY-PASS?

- A) YES [97] B) NO [13] NO ANSWER [37]

9) IF YOU ARE IN FAVOR OF A BY-PASS, DO YOU FEEL SOUTHERNCORRIDORS THROUGH DEERING SHOULD BE INVESTIGATED?

- A) YES [67] B) NO [37] NO ANSWER [39]

10) IF THE ENVIRONMENTAL CONCERNs REGARDING BUILDING THROUGH WETLANDS COULD BE ADEQUATELY ADDRESSED, WOULD YOU SUPPORT CONSTRUCTION OF THE PROPOSED ROUTE 9/202 BY-PASS THROUGH DEERING?

- A) YES [54] B) NO [57] NO ANSWER [26]

11) WOULD YOU BE IN FAVOR OF ADVANCING THE ESTIMATED CONSTRUCTION PERIOD FOR THE RTE 9/202 BY-PASS FROM ITS PRESENT SCHEDULED CONSTRUCTION DATE OF 1993-1995?

- A) YES [66] B) NO [43] NO ANSWER [28]

13) IN WHICH OF THE FOLLOWING AREAS ARE YOU INTERESTED IN INVESTIGATING THE ESTABLISHMENT OF A LIGHT COMMERCIAL ZONE?

- A) DANIEL'S GRAVEL PIT (MANSONVILLE RD.) [13]
B) ROUTE 149 NEAR HILLSBORO TOWN LINE [38]
C) ADJACENT TO THE PROPOSED ROUTE 9/202 BY-PASS [34]
D) ADJACENT TO THE AIRPORT [46]
E) OTHER [11]
NO ANSWER [35]

The respondents clearly were familiar with the bypass subject and the clear majority feel a bypass corridor is needed somewhere. Of the respondents about two thirds felt that southern routes through Deering should be investigated (supporting the activities in this plan). Slightly more than half of the respondents showed their concern for wetland areas and felt they would not support construction if wetlands were involved. Two thirds of the respondents would like to see the schedule moved up for the construction of the bypass.

As for a commercial district for the town, most felt that they should be located in an area near the proposed bypass which is in the general proximity of Rt-149 near Hillsboro, the airport, and Daniel's Gravel Pit.

Planning for the Future

The Hillsboro bypass is a reality. It will be built; not today, but sometime tomorrow. If a southern route is the selected route the town must be ready for any impacts which may arise. This means we, as towns residents, have an opportunity to plan our future by selecting possible corridors and planning the land use areas near the corridors.

Planning is most important and the Master Plan process is the tool for building the proper foundation of subdivision and zoning regulations.

In planning southern routes, the town would probably want to adopt the philosophy of "minimize the pain and maximize the gain". This simple statement should be the underlying decisionary process used in selecting corridors and adopting land use regulations. To minimize pain, the proposed corridors should impact as few residences as possible and minimize the impact on wetlands. To maximize the gain would mean providing a flood proof escape route for West Deering, providing an area for a commercial district, and promoting better transportation in the town and region.

Criteria for Establishing Bypass Corridors in Deering

Bypass corridors of the past are now blocked by development. The northern route is blocked by Sylvania, Valley Home Center, and numerous homes. One southerly route has been blocked by the Hillsboro waste water treatment plant. The previous southerly route impacts three neighborhoods in Deering as it crosses Route 149 near Oxbow Camp Ground, Mansonville Road, and Longwoods Park. Can a better corridor be planned today which minimizes impact to town residences? This is the basic challenge in determining a new corridor.

Minimize Impacts to Residences From the standpoint of minimizing impacts to residential areas, a corridor which crosses the minimum number of roads will

probably minimize impacts to neighborhoods. In addition this reduces the number of bridge constructions or intersections. The corridor outlined on the overlay map shows the old corridors (in black) and a new proposal for a corridor (in green). The new corridor proposal crosses only the State Highway Route 149 and the Longwoods Road west of Longwoods Park in an area of undeveloped land. A

crossing at Route 149 southeast of the cemetery would impact directly two or three houses. These houses could be moved to more quiet and desireable locations, since open land is available nearby. The corridor crossing at Longwoods Road would not necessarily impact any residences. Land in this area is open and in the flood plain, which makes it less than optimal for future development. It is believed that this proposed corridor minimizes impacts to town residences.

Town Soils and Wetlands Consideration Soils play a role in the determination of a bypass corridor. The soil types in the proposed corridor are the following:

SOIL TYPE	NAME & CHARACTERISTICS
77D	Marlow stony loam - moderately steep to steep and well drained
143C	Monadnock stony fine sandy loam - strongly sloping and well drained
559B	Skerry stony fine sandy loam - nearly level to gently sloping and moderately well drained
36C	Adams loamy sand - excessively drained and strongly sloping
613A	Croghan loamy fine sand - nearly level and moderately well drained
214A	Naumburg fine sandy loam - nearly level and poorly drained
36B	Adams loamy sand - gently sloping and excessively drained
22A	Colton loamy sand - nearly level and excessively drained

The Town of Deering has one of the largest deposits of Searsport Muck in New Hampshire. This soil type is glacial alluvial in nature. The area is located to the southwest of the intersection of Longwoods Road and The Department of Transportation Right of Way along the abandoned rail road line. This soil type is not recommended for building roads

due to instability and water retention properties. This large area of Searsport Muck should be avoided. The other soils range in road building quality from excellent (sand and gravel deposits) to poor. Poor quality soils are those that drain poorly and exhibit large swings in expansion characteristics which may be prone to producing frost heaves.

Wetland soils should be investigated to see if in reality they are wetlands. The Deering Wetlands Ordinance relies on soils and vegetation in its classification. Clearly any major route selection must have an environment impact analysis and a wetlands impact analysis. Areas to the west of Longwoods Park may be of wetland classification, these areas should be carefully investigated and factored into any actual road construction path.

Four Season Floodproof Route for West Deering A major way to maximize the gain for the Town of Deering is to provide a flood proof escape route for West Deering. Presently when the Contoocook River floods all roads in and out of Longwoods Park and West Deering become impassible. This poses a serious safety hazard for residents in these areas. In the flood of 1987 (a 25 to 50 year flood) residents were told to evacuate their homes, some had to leave by foot since water levels rose to the point where vehicular traffic was impossible. The bypass could provide a flood proof escape route if it were designed properly. Clearly this feature would provide a valuable gain for the Town of Deering.

Creation of a Sensible Commercial Area Deering currently is under considerable tax pressure, due to new school construction. School costs will continue to be significant in the future and will drive the Deering tax rate. To help shoulder this burden, commercial establishments could be developed in the future. The problem Deering has in attracting business is that it has very poor transportation in and out of town. Transportation is a key ingredient in commercial siting considerations. Presently Deering's options for the clean and desired form of business are limited due to our limited transportation system and other factors. Commercial establishments require quick convenient automotive and truck transportation networks. A bypass, if properly located and complimented with an adjacent commercial zone, could provide the town with a planned commercial area. This future commercial district could provide tax base, convenient shopping, and a place for towns people to meet.

Areas defined in the questionnaire as possible sites for commercial areas are identified below.

- * A possible commercial area is along Route 149 from the Hillsboro town line to Raymond Daniel's Gravel pit. This area presently is populated with numerous businesses. In addition the area has the highest business concentration in the town. This area is the part of town which is closest to Hillsboro sewer and town water. In addition three phase electric service is also available in this area.

Daniel's gravel pit is a large 50 or more acre gravel pit. The gravel pit presently has access to three phase power along Route 149. The excavation would be well suited for commercial development, since it has been cleared and excavated, making residential use somewhat more difficult and less desireable. If we are going to have a commercial district it seems to make sense to put it in an area which has already been altered from its natural state.

- * Another area would be near the airport in West Deering. The development of the airport as a commercial area must be carefully considered, since some of the towns best aquifers are potentially located in this area. The water resources section of the Master Plan is addressing this subject. A further complicating factor is that the best farm land in the town is located in this area. If this area were to be a commercial district the bypass would play an important role in determining just how viable a commercial area it would be.

As commercial areas of town, these two areas are probably the most desireable. The availability of nearby water and sewer is an added plus for the area from Daniel's Gravel pit to the Hillsboro town line. A commercial district in this area without a southern bypass Route 149 would probably be a mistake, since it would further burden the downtown Hillsboro Route 149 Route 9/202 area. Clearly the bypass could support the a commercial district and minimize the traffic problems in downtown Hillsboro.

Construction Building Materials The area of the proposed bypass corridor contains an abundant supply of sand and road construction materials. This is important, since on site materials will lower the cost of highway construction.

USGS Seismic Reflection Studies of Longwoods Road United States Geological Survey (USGS) studies have been conducted in the area along Longwoods Road. The seismic reflection studies show that the area along Longwoods is not good for an aquifer. The reason this area is not good for a water supply is that the water bearing sand and gravel layer is from the surface to about 10 feet deep. Below that depth a clay and silty sand layer goes to bedrock at about 140 feet. From these initial studies it would seem that this area of Deering was at the bottom a lake during the Ice Age.

The type of soils and layers would indicate that these are glacial in formation. This is an important issue in the establishment of any bypass corridor. The USGS will be performing actual borings in this area in the summer of 1989. Data collected then will be incorporated into the Water Resource Protection Section of the Master Plan.

Summary

The Hillsboro bypass has probably a 50 % or better chance of coming south through Deering. Looking at the old routes and where the improvements have stopped on Routes 202 in Antrim and Routes 9/202 in eastern Hillsboro, one notices that the points almost perfectly match. Development to the north and Fox Forest have blocked the northerly route. Easements through the State Fox Forest will probably involve a long drawn out legal battle with environmentalists. A bypass interchange on School Street is not desireable since it will increase traffic by the new school. In addition, a northern route will not solve the Route 149 interchange problems in downtown Hillsboro. In light of these facts Deering should not ignore the bypass, but the town should plan and recommend to the Department of Transportation the most advantageous route for the Town of Deering.

It is the intent of the Planning Board in this revision of the Master Plan to address this topic with a proposed corridor, which provides maximum benefit with minimal pain to the Town of Deering.

The Future

Summary and Impacts

Growth is a key ingredient in determining the long term strategy for developing and maintaining the Deering transportation network. Not only is transportation vital in servicing those who are presently here, but it is also vital to draw into town the business and type of development we would like to see.

Growth projections of the OSP predict that Deering population will double in less than seven years. With this type of growth it makes sense to project the 1988 traffic counts and commuting patterns into the future. The situations that are cited below are not presently considered critical, but are in need of a long term solution:

1. Improved access to the shopping and service areas of Hillsboro and other towns. The Town of Deering will grow and we must ask ourselves do we always want to travel to other towns for services. Presently travelling to Hillsboro is complicated by the downtown Hillsboro traffic patterns. To shop in Antrim one must travel dirt roads and across obsolete bridges. To travel to Weare and the East it is a 10 mile trip on Route 149 which during frost heave season is not a pleasure.
2. A Flood proof escape route for residents of West Deering is a major concern. Especially in light of recent expansion proposals of Longwoods Park. Growth in other surrounding areas further complicate the emergency and rescue problem during times of flood.
3. Replace or repair the bridge across the Contoocook River in West Deering. Presently this is one of the most heavily traveled areas in Deering. With further development in Bennington and no foreseeable agreement between Bennington and Antrim on the restoration of the closed bridge across the Contoocook, the traffic is only likely to increase. This bridge has been rated structurally sound, but functionally obsolete by the New Hampshire Department of transportation. The bridge repair and replacement could be a major tax burden in the future for the town.
4. Recent road improvements in East Deering are capable of safely handling the traffic in this area. Improved roads make faster travel possible and additional posting may be required.
5. Most roads in Deering are capable of handling the traffic and most do not need to be posted with speed limit signs since the physical condition of the roads adequately control speeds. Newly renovated roads should be posted since excessive speeds of travellers may pose safety hazards to neighborhood families.
6. Major developments along Class VI roads should invoke an impact assessment fee. This fee would assure that the town would not be directly profiting developers at the expense of the tax payer.
7. As traffic increases on Route 149, the town should closely monitor conditions of the Deering Center. To protect the tranquil Deering Center in the future possible routes directing traffic around the town center should probably be addressed. This activity is off in the 21st century, but if we desire a quiet town center atmosphere it should be planned for today.

The bypass and its impact to Deering must be carefully considered at all levels. Before any bypass is constructed, the Planning Board should strive to make sure the town is ready with established commercial zones and permitted uses. If the bypass were to go north, the town should think about the following impacts:

1. It would be very doubtful that the town would ever be able to get the first class type of commercial development if it so desired. It is difficult seeing anyone building a commercial development in town with the present transportation system.
2. Commuting to Hillsboro in the future would still involve the dangerous intersection in Hillsboro and the narrow bridge across the Contoocook. Little besides a traffic light can be done to improve the traffic situation in this area.
3. West Deering would continue to be isolated in times of flood and would remain somewhat isolated from the rest of the town.

Closing

The Transportation Master Plan Committee wishes to thank the following groups, agencies and organizations. The Central New Hampshire Regional Planning Commission for assistance in regional transportation information and for providing overall guidance in this activity. The New Hampshire Department of Transportation for information on the Deering Airport Approach and general corridor planning information. The Town of Hillsboro, for old bypass corridor maps. In addition, the town of Deering voters for supporting Planning Board Master Plan activities at the 1988 Deering Town Meeting. Lastly, to the people of Deering who took the time and initiative to respond to our questionnaires.

Once again thank you,

The Transportation
Subcommittee

Appendix and List of References

Questionnaire Results

As most of you know, the Office of State Planning has indicated that Deering is one the fastest growing towns in the state on the basis of percentage change. The Deering Planning Board has seen indications of this growth and has solicited the citizens of Deering with a Master Plan Questionnaire to gather information on what the citizens of Deering want their town to be in the future.

A total of 770 questionnaires were distributed 348 replies were received by the Planning Board, this was a 45.2 % return which is excellent. The results of the tabulation are listed below:

1. If you own property(s) in Deering, what best describes it

- (182) Residence (1) Commercial
- (12) agriculture (16) pasture
- (66) recreation (42) timber
- (87) undeveloped property
- (4) other (lake front property)

Where is your property(s) located in Deering?

Please refer to the supplied map

- (11) Area #1
- (75) Area #2
- (98) Area #3
- (60) Area #4
- (53) Area #5

2. Are you a registered voter in Deering?

- (110) yes
- (165) no

3. If you are a landowner, how much land do you own in Deering?

- (72) 1 or less acre
- (75) 2-5 acres
- (78) 6-25 acres
- (45) 26-100 acres
- (19) 101-250 acres
- (4) more than 250 acres

4. How long have you lived in Deering?

- (25) less than 1 year
- (61) 1-5 years
- (38) 6-10 years
- (53) 11 - 20 years
- (61) over 20 years

5. How much time do you spend per year at your property in Deering?

- (93) less than 3 months
- (33) 3 to 6 months
- (21) 6 to 9 months
- (13) 9 to 12 months
- (124) year round

6. Do you plan someday to make Deering your permanent residence?

- (76) yes
- (68) no

7. What new use of your property do you foresee in the next five years:

- (243) remain as is
- (14) subdivide
- (21) develop
- (11) other (timber, build, expand, remodel)

SECTION II. CONCERNS

1. Which of the following types of new businesses would you like to see in the town? (check as you see fit)

- | | |
|-------------------------------------|------------------------------|
| (82) home business | (80) small retail shops |
| (46) overnight lodging | (56) restaurants |
| (29) shopping center | (48) light industry |
| (20) service industry | (35) office and research |
| (28) high tech. | (77) post office |
| (85) agriculture | (70) recreational facilities |
| (13) other (General Store, grocery) | |

2. Are you in favor of specific zoning areas in Deering ?

- (157) yes (62) no

if yes, where would you like to see specific areas located?

(check one or more items under each category you feel should have a separate zone)

AGRICULTURE / RESIDENTIAL ZONE

Agriculture - Land areas for active agricultural uses, excluding the farm house which will be residential.

Residential - Includes farmhouses, seasonal cottages, mobile homes on permanent foundations, modular homes, duplexes, converted single and two family structures, and apartments. Excluding boarding and rooming houses and nursing homes.

- | | |
|---|-------------------|
| (60) anywhere | (32) along Rt-149 |
| (11) around the airport | |
| (11) area #1 (all areas, excluding town land and common area) | |
| (15) area #2 (all areas) | |
| (20) area #3 (all areas) | |
| (9) area #4 (all areas) | |
| (6) area #5 (all areas) | |
| (9) other specific area (not in town center, not near marshlands and bodies of water) | |

COMMERCIAL ZONE

- | | |
|--|-------------------|
| (10) anywhere | (55) along Rt-149 |
| (37) around the airport | |
| (16) area #1 (town center, hotel lot) | |
| (7) area #2 (Along Rt-149) | |
| (1) area #3 (not near Reservoir) | |
| (8) area #4 (Fisher Road near town center, Old County Road) | |
| (5) area #5 (Daniel's Gravel Pit to Dutton's Field, Rt-149 near Hillsboro) | |
| (8) other (none) | |

CONSERVATION AREAS

Areas because of their natural beauty, environmental quality, watershed capabilities or ecological nature, should not be altered from their natural state.

- | | |
|--|-------------------|
| (78) anywhere | (10) along Rt-149 |
| (2) around the airport | |
| (6) area #1 (town common) | |
| (12) area #2 Marshlands, all Ponds, along River | |
| (40) area #3 (reservoir, Fultons Pond, Marshland south of the reservoir) | |
| (12) area #4 (Hedgehog Mountain, Wolf Hill, Clark Summit, along Old County Road) | |
| (12) area #5 (all wetlands, Audubon land Dudley Pond, Mud Pond) | |
| (4) other specific area (all wetlands, all town owned lands) | |

HISTORICAL AREAS

Sites which have local or regional historical significance and should be protected as such from development which would alter the character of the area.

- | | |
|---|------------------|
| (69) anywhere | (4) along Rt-149 |
| (0) around the airport | |
| (33) area #1 (town center and common area) | |
| (11) area #2 (stone bridge, school house, E. Deering Village) | |
| (4) area #3 (reservoir) | |
| (1) area #4 (Wolf Hill) | |
| (3) area #5 (His Mansion) | |
| (3) other (Historical Society Selections) | |

INDUSTRIAL AREA

Includes all manufacturing, assembly and warehousing operations, mining (active sand and gravel operations), sawmills and auto body shops

- | | |
|--|-------------------|
| (14) anywhere | (23) along Rt-149 |
| (31) around the airport | |
| (3) area #1 (around town center) | |
| (1) area #2 (East Deering Road) | |
| (3) area #3 (Reservoir Road) | |
| (7) area #4 (Around Rt-202, Longwoods Rd, Along River) | |
| (7) area #5 (Daniels gravel pit, Putts, Henniker Line) | |
| (27) other (nowhere, on a specific case by case basis) | |

RECREATIONAL AREAS

Land and or facilities which are owned by the town (such as ball fields, tennis courts, parks, skating, swimming areas) for the enjoyment of the towns people.

- | | |
|--|-------------------|
| (53) anywhere | (10) along Rt-149 |
| (4) around the airport | |
| (12) area #1 (field lot #197, Hotel lot, town common) | |
| (3) area #2 (Audubon Land) | |
| (34) area #3 (Reservoir) | |
| (4) area #4 (West Deering, along Airport Road) | |
| (0) area #5 (no input an oversight ???) | |
| (1) other (clean up the Reservoir and maintain it for skating, school grounds) | |

OTHER SPECIFY (MOBILE HOME PARK)

- | | |
|--------------------------------|------------------|
| () anywhere | () along Rt-149 |
| () around the airport | |
| () area #1 | |
| () area #2 | |
| () area #3 | |
| (1) area #4 (mobile home park) | |
| () area #5 | |

OTHER SPECIFY (COTTAGE INDUSTRY)

- | | |
|------------------------|------------------|
| (6) anywhere | () along Rt-149 |
| () around the airport | |
| () area #1 | |
| () area #2 | |

- () area #3
 - () area #4
 - () area #5

OTHER SPECIFY (FLOOD PLAIN NO BUILDING ZONE)

- anywhere
 - around the airport
 - area #1
 - area #2
 - area #3
 - area #4
 - area #5
 - other (in recognized floodplain areas)

3. Are you in favor of the continuance of the 2 acre minimum lot size in Deering?

- (201) yes (69) no

If no, what size minimum lot are you in favor of, please specify (_____ acres) [inputs varied from 1/4 acre to 5 acres the majority being larger than the 2 acre minimum now in effect]

4. Are you in favor of new lot sizes larger than 2 acres around the reservoir or other open bodies of public water for the protection of water quality?

5. Do you know of any instance in Deering of the following? If so, indicate where they are located.

- (12) polluted streams (North end of the Reservoir)
 - (26) inadequate septic tanks (Fisher Road, Zoski Road)
 - (11) raw sewerage from homes (Fisher Road)

Are you in favor of strict enforcement of local regulations?

- (206) yes (27) no

7. Do you feel that certain areas of town should be set aside for the recreational enjoyment of the people of Deering?

- (213) yes (31) no

if yes, what specific facilities should be provided?

(please pick 3)

- (167) the reservoir area (year round recreation)
 - (72) town ball field
 - (32) tennis courts
 - (151) nature trails and walks
 - (99) small parks
 - (68) play grounds
 - (6) other (Beach Area, Hockey Rink, Library, Hunting/Fishing areas)

if yes would you be willing to support the acquisition of such facilities with a percentage increase in your tax dollar?

- (133) yes (89) no

if yes, would you be willing to support the maintenance of such facilities with a percentage increase of your tax dollar?

(129) yes (67) no

8. Are there buildings and areas of town that should be preserved for historic or scenic value?

(118) yes (27) no

if yes, (East Deering Village, Town Center, 18-19th Century buildings)

9. Do you feel that the preservation of wetlands is important?

(173) yes (14) no

if yes, should the sub-division regulations and zoning ordinances be amended to include protection of these areas?

(178) yes (11) no

if yes, (All wetlands, Reservoir, Dudley Pond, along rivers and streams)

Questionnaire Summary

After a review of the tabulated results, the following conclusions have been made:

- * People like the uncrowded living and natural environment which Deering provides
 - * People want Deering to experience a slight growth
 - * People want to see Deering's roads improved
 - * Single family homes are the preferred type of residential housing
 - * Considered to be serious local problems are:
 - taxes
 - protection of the Reservoir
 - road maintenance
 - growth and development
 - * people are satisfied with the Fire and Police Departments
 - * people are in favor of specific zoning areas
 - * people favor the 2 acre lot size, but are in favor of larger lot sizes around the reservoir and other bodies of water
 - * people are for strict enforcement of the regulations and ordinances
 - * people want town provided recreation supported by taxation
 - * people support the preservation of historical areas and buildings
 - * people support the preservation of wetlands

Transportation Questionnaire Results

TRANSPORTATION SURVEY

1) HOW MANY MEMBERS OF YOUR HOUSEHOLD WORK AWAY FROM THE HOME?

A) 1 (39) B) 2 (67) C) 3 (9) D) 4 or more (1) NONE (16) NA (3)

2) FOR EACH WORKING INDIVIDUAL (IND.), PLEASE INDICATE THE MAJOR ACCESS ROUTE USED TO LEAVE DEERING?

IND. 1 (a) Rte 149 West to Rt 9/202 West [22]

(b) Rte 149 West to Rt 9/202 East [19]

(c) Rte 149 East to Rte 114 South [35]

(d) East Deering Rd to Rt 77/114 [12]

(e) Pleasant Pond Rd to Rt I36 [1]

(f) Other [20]

[25]

(c) Dts 140 West to Dt

(h) Rte 149 West to Rt 9/202 East [14]

(b) Rte 149 West to Rte 9/202 East [14]

- (c) Rte 149 East to Rte 114 South [15]
- (d) East Deering Rd to Rt 77/114 [11]
- (e) Pleasant Pond Rd to Rt I36 [2]
- (f) Other [2]
- N/A [16]

- IND. 3 (a) Rte 149 West to Rt 9/202 West [2]
- (b) Rte 149 West to Rt 9/202 East [3]
 - (c) Rte 149 East to Rte 114 South [3]
 - (d) East Deering Rd to Rt 77/114 [1]
 - (e) Pleasant Pond Rd to Rt I36 [0]
 - (f) Other [1]

3) FOR EACH WORKING INDIVIDUAL, PLEASE INDICATE THE AVERAGE COMMUTING TIME, ONE WAY:

- IND. 1 a) less than 1/2 hour [38]
- b) 1/2 to 1 hour [53]
 - c) more than 1 hour [22]
 - N/A [21]

- IND. 2 a) less than 1/2 hour [27]
- b) 1/2 to 1 hour [31]
 - c) more than 1 hour [14]

- IND. 3 a) less than 1/2 hour [6]
- b) 1/2 to 1 hour [3]
 - c) more than 1 hour [0]

4) HOW MANY MOTOR VEHICLES, EXCLUDING RECREATION VEHICLES, ARE OWNED BY MEMBERS OF YOUR HOUSEHOLD?

- a) 1 [28]
 - b) 2 [30]
 - c) 3 [24]
 - d) 4 or more [15]
- NONE [2] N/A [2]

5) WHICH OF THE FOLLOWING COMMUNITIES DO YOU PATRONIZE FOR THE MAJORITY OF YOUR NON-FOOD SHOPPING?

- A) CONCORD [33]
 - B) MANCHESTER [30]
 - C) WEARE [0]
 - D) HILLSBORO [12]
 - E) HENNIKER [0]
 - F) OTHER [12]
- N/A [3] DISQUALIFIED [45]

6) WHICH OF THE FOLLOWING COMMUNITIES DO YOU PATRONIZE FOR THE MAJORITY OF YOUR FOOD SHOPPING?

- A) CONCORD [37]
 - B) MANCHESTER [14]
 - C) WEARE [0]
 - D) HILLSBORO [24]
 - E) HENNIKER [1]
 - F) OTHER [11]
- N/A [19] DISQUALIFIED [30]

7) ARE YOU FAMILIAR WITH THE ISSUE OF A PROPOSED ROUTE 9/202 BYPASS?

- A) YES [100]
- B) NO [16]
- NO ANSWER [21]

8) IF YES, ARE YOU IN FAVOR OF A ROUTE 9/202 BY-PASS?

- A) YES [97]
- B) NO [13]
- NO ANSWER [37]

9) IF YOU ARE IN FAVOR OF A BY-PASS, DO YOU FEEL SOUTHERN CORRIDORS THROUGH DEERING SHOULD BE INVESTIGATED?

A) YES [67] B) NO [37] NO ANSWER [39]

10) IF THE ENVIRONMENTAL CONCERNs REGARDING BUILDING THROUGH WETLANDS COULD BE ADEQUATELY ADDRESSED, WOULD YOU SUPPORT CONSTRUCTION OF THE PROPOSED ROUTE 9/202 BY-PASS THROUGH DEERING?

A) YES [54] B) NO [57] NO ANSWER [26]

11) WOULD YOU BE IN FAVOR OF ADVANCING THE ESTIMATED CONSTRUCTION PERIOD FOR THE RTE 9/202 BY-PASS FROM ITS PRESENT SCHEDULED CONSTRUCTION DATE OF 1993-1995?

A) YES [66] B) NO [43] NO ANSWER [28]

12) ARE YOU IN FAVOR OF CONTINUING THE APPROVAL AND DEVELOPMENT OF ANY HOME BUSINESS IN ALL AREAS OF DEERING?

A) YES [79] B) NO [34] NO ANSWER [22]

13) IN WHICH OF THE FOLLOWING AREAS ARE YOU INTERESTED IN INVESTIGATING THE ESTABLISHMENT OF A LIGHT COMMERCIAL ZONE?

- A) DANIEL'S GRAVEL PIT (MANSONVILLE RD.) [13]
- B) ROUTE 149 NEAR HILLSBORO TOWN LINE [38]
- C) ADJACENT TO THE PROPOSED ROUTE 9/202 BY-PASS [34]
- D) ADJACENT TO THE AIRPORT [46]
- E) OTHER [11]
- NO ANSWER [35]

14) PLEASE INDICATE NO MORE THAN TWO LOCATIONS ON DEERING ROADS WHICH YOU BELIEVE REPRESENT SAFETY HAZARDS TO MOTORISTS?

15) ARE YOU IN FAVOR OF ADDITIONAL SCENIC ROAD DESIGNATIONS WITHIN THE TOWN?

A) YES [60] B) NO [48] NO ANSWER [27]

16) IF YES, WHERE?

17) ARE YOU IN FAVOR OF DESIGNATING SOME CLASS VI, NON-MAINTAINED TOWN ROADS AS RECREATIONAL ROADS FOR HIKING, CROSS-COUNTRY SKIING, HORSEBACK RIDING, ETC.?

A) YES [62] B) NO [50] NO ANSWER [23]

18) IF YES, WHERE?

Traffic Counts Report of Stephen Pernaw

This report is attached to the Map #1 display. Copies are available through the Planning Board for a nominal fee.

USGS Seismic Reflection Studies of Longwoods Road

United States Geological Survey (USGS) studies have been conducted in the area along Longwoods Road. The seismic reflection studies show that the area along Longwoods is not good for an aquifer. The reason this area is not good for a water supply is that the water bearing sand and gravel layer is from the surface to about 10 feet deep. Below that depth a clay and silty sand layer goes to bedrock at about 140 feet. From these initial studies it would seem that this area of Deering was at the bottom of a lake during the Ice Age. The type of soils and layers would indicate that these are glacial in formation. This is an important issue in the establishment of any bypass corridor. The USGS will be performing actual borings in this area in the summer of 1989. Data collected then will be incorporated into the Water Resource Protection Section of the Master Plan.

Color Coded Maps

Color coded maps are being presented as part of the Master Plan. Unfortunately, most maps are too big to fit into the plan so they can only be referenced.

MAP #1 TRANSPORTATION OVERLAY (BASE MAP 1987 USGS TOPO)

MAP #2 AERIAL MAP PROPOSED BYPASS CORRIDORS (DIAZO)

MAP #3 DEERING AIRPORT APPROACH PLAN

MAP #4 PREVIOUS BYPASS ROUTES

MAP #5 STEPHEN PERNAW DEERING STREET NAME MAP

National Flood Plain Maps

National Flood Plain Maps are available at the Deering Town Hall for review. Copies may be obtained by calling the National Flood Insurance Program.

OSP Projected Town Growth

From "New Hampshire Population Projections--Total Population for Cities and Towns 1980-2010," Office of State Planning, May 1987.

CNHRPC Transportation Report

This regional report will be provided by the Central New Hampshire Regional Planning Commission.

Previous N.H. DOT Bypass Routes

This is a B size map contained in the pages of the transportation master plan.

N.H. DOT Design Phase Flow Chart

This document describes the typical activity chart for the planning and construction of a major highway project.

Town of Deering Master Emergency Plan

This will be provided by the Deering Fire and Rescue Department.

Model Airport Zoning Ordinance

The New Hampshire Department of Transportation has provided a model airport zoning document for the Deering Airport.

COMMUNITY FACILITIES ELEMENT
Master Plan

Town of Deering

Prepared by the
Deering Planning Board

with the assistance of the
Central New Hampshire
Regional Planning Commission
329 Daniel Webster Highway
Boscawen, NH 03303
Telephone (603) 796-2129

Adopted on April 10, 1991 by the
Deering Planning Board
following public hearing s
on November 14, 1990 and January 9, 1991

INTRODUCTION

The purpose of the Community Facilities Element is to provide a planning basis with which the Town can better meet its responsibilities to provide municipal and related services. Existing services, and the facilities used to provide the services, are described within this section. Based on assessments of the current services and facilities, the current and future needs of each facility are identified.

The objective is to list the future service and facilities needs of the Town in one comprehensive, coordinated summary. Volunteers, department heads, and other knowledgeable persons provided information on the facilities and insights on future needs through the year 2010. The information and insights were then assembled into the Community Facilities Element.

Town government exists for many reasons. Among the most important functions of government is the provision of essential or desired services which can not be or are not provided solely by the private sector. The Town must plan well in advance in order to provide services in an efficient, effective, and affordable manner.

The provision of municipal services usually involves capital facilities. Where services must be expanded, capital improvements are generally required. So that the Town can support needed capital expenditures without needlessly burdening the taxpayers and so that capital expenditures can be applied in as efficient and effective manner as possible, the Planning Board proposes that the Community Facilities Element be used as the long term basis for capital improvements planning.

Participants in the process are identified in the various subsections. Planning Board and master plan committee members Bev Yeaple, Ed Dutton, Susan Merrill, Hazel Vogelein, and Holly Weinberg coordinated the information gathering and supervised the preparation of the element. The Planning Board thanks all those who participated for their important contributions.

Each participating department head or official was asked to describe their existing operation and facilities. They were then asked to assess the adequacy of their operation and facilities for current, year 2000, and year 2010 needs. Based on the assessments, current and future needs were identified by the department heads and officials. Where appropriate, cost estimates, proposed facilities locations, and recommended short and long term actions are identified. Where projections for future needs are made, they are based on the New Hampshire Office of State Planning (OSP) population and household projections published in May 1987 [current (1988) = 1417 population and 600 dwelling units; year 2000 = 2698 population and 1132 households; and year 2010 = 3896 population and 1724 households].

DEPARTMENT DESCRIPTIONS

Town Hall / General Government

The town hall is located in the center of Deering on Route 149, adjacent to the Town Common, and across Route 149 from the Congregational Church. The hall is the center of most town governmental activities, including annual town meetings, board and commission offices and meetings, town official's offices, and government records storage.

The hall currently provides meeting and office space for the Board of Selectmen and secretary, Clerk/Tax Collector, Treasurer, Police Chief, Building Inspector, Planning Board, Conservation Commission, and Zoning Board of Adjustment. Current needs include handicapped accessibility; a fireproof record storage vault; defined office space and office equipment for each board, commission, and officer; committee rooms; and safe evidence/records storage for the Police Department.

In ten to twenty years as the population doubles or triples, each of the existing needs will be exacerbated by increased demands on each town officer, board, and commission. As hours of operation increase, more overlap in office and work space will occur. The Town must plan and implement a long-term town office space program.

The second floor of the town hall is currently used for storage and could be converted to offices and secure records storage. Handicapped accessibility would be a greater problem, unless an elevator and accessible restrooms are installed. As other town facilities are constructed (a fire hall, for example), other related functions (police) could be transferred to the new building. The third major option to consider would be a new, separate town office building.

The Town should use the next few slow growth years to evaluate the options, select the best solution, and decide on financing for meeting town office needs for the short and long term.

Hazel Vogelien, Clerk/Tax Collector, and Susan Merrill, Secretary to the Selectmen, were the primary sources of information for this section.

Police Department

The Selectmen have approved up to seven officers for the department, including a chief, a sergeant, and five part-time officers. The department uses office space in the town hall, and stores the cruiser at the chief's home. The cruiser is a 1984 AMC Jeep Cherokee.

Table 1 summarizes police activities from 1986 through 1988. Figures from

1989 are not available. Changes in reporting methods between 1985 and 1986 made earlier year's statistics incomparable. Statistics for a short period do not support trend analysis, but do show considerable activity for a small police force.

Table 1

Police Activity 1986 - 1988

Type of Call	1986	1987	1988
Motor Vehicle Complaints	43	78	71
Motor Vehicle Summons	86	306	133
Motor Vehicle Accidents	27	46	42
Assist Motorists	34	70	35
Assist Other Departments	52	88	59
Burglary	10	30	31
Burglar Alarms	18	18	12
Criminal Mischief	11	19	30
Criminal Arrests	10	63	44
Call Backs	183	253	381
Complaints	75	220	252
Disorderly Conduct	7	12	7
Dog Complaints	20	56	23
DWI	4	14	3
Family Disputes	10	58	31
Suspicious Persons/Vehicles	18	39	29
<u>Thefts</u>	<u>13</u>	<u>10</u>	<u>21</u>
TOTAL	621	1380	1204

Current needs include more and better office space, including safe records and evidence storage, and a new cruiser. The old cruiser has relatively new equipment installed. The department will soon need a computer. By the year 2000, the department should expand to two full-time positions. Shortly thereafter, a second cruiser should be maintained, which will necessitate garage space. By 2010, the department should include three to four full-time officers.

In summary, over the next twenty years, at projected growth rates, the Police Department will need to double or triple operations, including officers and office space, cruisers and garages, and computerization. As with general town office needs, a long term perspective is needed to provide a cost-effective solution.

Schools

In 1954 Deering created a cooperative school district with neighboring Hillsborough. The two towns currently cooperate on education from kindergarten through 12th grade, including special education. The Hillsboro-Deering Cooperative School District, together with Washington and Windsor, make up the School Administrative Unit # 34.

Table 2 contains the average enrollment levels for the Hillsboro-Deering Cooperative School District during the month of October in the past five school years. Total enrollment has increased from one year to the next each of the last four years. The total increase has been 194 students, or 19%. Most of the increase, 172 students, was in the elementary level (grade K-5), where total enrollment increased 36%. Middle school (grade 6-8) enrollment increased by 31 students (14%), while the high school (grade 9-12) decreased by 9 students (3%).

Table 2

Hillsborough-Deering Cooperative School District Average October Enrollment

<u>Grade</u>	<u>85-86</u>	<u>86-87</u>	<u>Year</u> <u>87-88</u>	<u>88-89</u>	<u>89-90</u>
Kindergarten	76	70	100	93	104
First Grade	124	123	121	140	131
Second Grade	71	85	96	98	135
Third Grade	65	70	83	90	88
Fourth Grade	69	71	73	87	91
Fifth Grade	78	76	77	72	92
Sixth Grade	74	77	78	84	74
Seventh Grade	73	76	72	74	90
Eighth Grade	76	71	74	75	82
Ninth Grade	92	74	104	90	89
Tenth Grade	90	87	66	87	85
Eleventh Grade	72	86	78	70	81
Twelfth Grade	70	69	73	76	54
<u>Special Education</u>			<u>35</u>	<u>30</u>	<u>28</u>
<u>TOTAL</u>	<u>1,030</u>	<u>1,035</u>	<u>1,130</u>	<u>1,166</u>	<u>1,224</u>

Totals					
K-5	483	495	550	580	655
6-8	223	224	224	233	254
9-12	324	316	321	323	315

NOTE: Figures based on town of residence are not available.
 In October of 1989, 272 students were from Deering, 901 were from Hillsborough, and 51 were tuition students.

The information in this section was received from Ralph Minichiello and Wayne Emerson of the Superintendent of Schools Office for SAU #34. The office has prepared enrollment projections for each of the next five school years by class. The projections are summarized in Table 3 below. Even the lowest projections anticipate overall growth in enrollment of 432 students or a 35% increase.

Table 3

School Enrollment Projections 1990-91 Through 1994-95

<u>Year</u>	<u>Grade Levels</u>			
	<u>K-6</u>	<u>7-8</u>	<u>9-12</u>	<u>K-12</u>
1990-91	704/742	275/294	334/345	1324/1370
1991-92	730/820	290/323	368/372	1388/1512
1992-93	778/930	326/369	371/397	1475/1696
1993-94	787/990	383/429	405/459	1575/1878
1994-95	822/1065	400/476	434/518	1656/2059

[NOTE: The first figure in each pair separated by a slash is the lowest of three projections, while the second figure is the highest of three projections. The three projections are based on the relationship between live births and eventual enrollment levels with the variation due to the different periods used to develop averages. The table shows only the high and low projections which were not consistently derived from the same method. The projections, therefore, may not add across the table to equal the figures in the right hand column.]

Projections are essential to planning and, in general, planners prefer to overestimate, rather than underestimate, growth. Plans can be scaled back easier than expanded, and, generally, modest extra capacity built-in is inexpensive compared to even minor expansion projects needed to obtain capacity. Where projections indicate the need to build major new capital facilities, however, the projections should be scrutinized carefully.

Planning where and how to build to meet capacity needs, on the other hand, is wise.

The projections above are based on the accelerating growth trends of the past few years. Those trends may well have reversed temporarily, but growth will eventually return. The SAU and School Board have tracked a trend over the past ten years where increasing enrollment in the elementary grades has not led to a corresponding increase at the middle and high school levels.

Current capacity in the District's schools is 1031 students in the elementary and middle school grades. The high school has a capacity for 400 students with core facilities for 600. At current growth rates, the middle school would reach capacity in two more years. Based on the above projections, the middle school would reach capacity in the coming or next school years. The high school would reach capacity in the 1993-94 school year. While recent trends have shown no growth in enrollment at the high school level, the growing classes in the lower grades could eventually impact the high school within the next four years.

The school district plans to meet its foreseeable capacity needs with existing buildings. A committee has been formed to assess the district's utilization of space and to make recommendations for maximum efficiency in the use of space. If the pattern of growth in elementary enrollment with no corresponding growth in the upper middle and high school enrollment continues, a capacity problem may surface in the middle school grades in six or seven years. Shifting students to the high school could alleviate overcrowding. If the pattern of growth changes, additional capacity throughout the system may be necessary in fewer years. The SAU and school board will continue to monitor the enrollment trends in order to anticipate and plan for, rather than react to, enrollment growth.

Fire and Rescue Department

The all-volunteer Deering Fire Department provides fire response, rescue/medical emergency service, and mutual aid response to Deering and surrounding communities. The mutual aid area includes Hillsborough, Weare, Antrim, and Bennington. The Department is nine years old, has approximately 36 fire fighters (12 at each station), and a women's auxiliary.

The department also is responsible for maintaining fire service and long range plans, maintaining hazardous materials listing and emergency planning, missing persons searches in conjunction with the police, maintaining master emergency and civil defense plans, forest fire concerns, and assuring that fire protection levels are high enough to provide the lowest possible insurance premiums.

The most recent improvement priorities for the Department have been the new fire station for company # 3 and refurbishing the body of pumper 84M2 and both refurbishing the body and replacing the tank of pumper 84M3.

Table 4 below summarizes the activities of the department over the past five

years. It should be noted that only calls involving the response of apparatus are listed. Other calls are not shown. The level of activity has been relatively stable since 1985. The rescue squad has accounted for about half of the department's activity since 1986.

Once station # 3 is constructed, the department will focus on ensuring water supply for fire suppression throughout town. A study of the availability and feasibility for use of bogs and wetlands is in progress. The department expects to bring a proposal for engineered water holes to town meeting in 1991.

Further into the future the department anticipates in 1992 the replacement of one of the older tankers with a new one and a new ambulance in 1993. Other needs foreseen include an East Deering substation to include 2 bays, meeting rooms, lavatory, and locker rooms. The department also needs records storage space. Finally, the enforcement of the BOCA code is recommended by the department as a safety and prevention measure.

Information for this section was submitted by Fire Chief William Edes. Other information was taken from the 1989 Town Report.

Table 4

Fire Department Calls

Type of Call	1985	1986	1987	1988	1989
Structural	2	1	2	1	4
Chimney	9	4	9	7	9
Motor Vehicle	0	2	1	2	2
Motor Vehicle Accident	3	4	1	4	3
Mutual Aid	12	12	7	13	9
Smoke Investigation	2	1	0	2	2
Brush/Grass	5	6	2	11	6
Hazardous Materials	0	0	1	0	0
Wires Down	1	3	2	1	0
Rescue	0	42	43	44	50
Assist Police/Medical	2	1	1	1	0
False Alarms	3	5	4	3	0
Special Emergencies	0	0	1(Hurricane)	0	0
Aircraft Crashes	2	0	2	0	0
<u>Lost Persons</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>
TOTAL	42	81	77	90	85

Library

The Deering Public Library is housed in an early 19th century schoolhouse. Converted to a library in 1926, the building has been used as a library during July and August of each year since. In recent years, the library has been open from June through mid-October. With no paid staff, the library is operated by the trustees and other volunteers.

The historic building housing the library has no heat or water and needs maintenance. In its present condition, it does not meet the New Hampshire State Library criteria for a certified library.

Of those persons who responded to a survey in 1983, 85% had never used the library and the majority did not want the building changed. Based on survey results, library hours were increased, more books were added to the collection, and year-round service was instituted. Circulation averaged about 200 volumes a year. By the end of 1989, circulation had increased to 365 volumes a year. Almost half the books used were children's books, reflecting the increase in families with young children.

As the town grows, service needs will increase. Many Deering residents currently use the Hillsborough library, with fewer residents going to the Weare library. The Library Trustees, who were the source of information for the section, have identified several options to meet the short and long range needs for library service in Deering. They are:

- 1) Close the library;
- 2) Stay open and operate under current conditions without certification;
- 3) Stay open, increase appropriation for improvements and paid staff, but not achieving certification;
- 4) Work towards a state certified associate library, including:
 - a) new building and equipment at \$400,000 minimum
 - b) paid staff at \$20,000 per year
 - c) annual book budget of \$10,000
 - d) annual maintenance and operation budget of \$2000; or
- 5) Provide service in conjunction with Hillsborough through an appropriation for either a flat yearly rate or a per user fee. This option could include use of the current library during the summer and for story hours.

The trustees recommend that the building be kept as an important historic resource regardless of its use as a library. If the building is to be used for public purposes, handicapped access, insulation and heating, lighting, and parking should be provided.

Cemeteries

The three member board, the Trustees of the Trust Funds, administer the cemeteries of Deering. They set prices and sell plots and perpetual care to finance upkeep of the cemeteries. Major work must be paid for with town appropriations. Such tasks include equipment purchases, wall repairs, tree work, road work, and the restoration of grave stones.

Cemeteries maintained by the board include Wilkins, West Deering, East Deering, Goodall, Appleton, Patten, Ellsworth, and Butler. Only Wilkins has lots available and only Wilkins and East Deering currently have room for expansion. Between the two cemeteries about 250 to 300 plots may be developable, which would meet the town's needs, based on recent sales trends, for about ten years.

Deering has not historically seen extensive vandalism in its cemeteries. In 1988, however, the East Deering cemetery was vandalized, resulting in 41 stones tipped over and separated at the joined areas and six stones were broken of which three required replacement. The damage of \$5500 was covered by town insurance, but future incidents will not likely be covered.

Starting in 1985, the board began a ten year restoration program, starting with the West Deering cemetery. In 1986 East Deering was restored (and then vandalized in 1988), followed by Wilkins in 1987. The expansion of Wilkins was the project for 1988. The restoration of Goodall and Patten cemeteries follow the Wilkins expansion. The Trustees, who through Tom Copadis provided the information for this section, wish to commend the town for its regular support of the care and maintenance of the town's cemeteries. Such regular support is important if major expenditures are to be avoided in the future.

At the present time, Wilkins and East Deering cemeteries are being expanded which will add about ten years of space needs. An immediate goal of the Trustees to actively seek additional land for either expansion or creating new cemeteries to meet the space needs of the year 2000 and beyond.

Recreation

Deering has no recreation commission or other special body charged with overseeing community recreation services. No inventory of sites, services, usage, or needs is available. Some communities are able to use school facilities to foster recreation programs as a continuation of school sponsored programs, but since no public schools are located in Deering, that option is not convenient for the town.

Many small towns have minimal recreation programs, whereas most large towns and virtually all cities have relatively extensive recreation programs. At the rates of growth projected for Deering, the town should start planning for recreational facilities and services.

The planning board recommends the following actions:

- 1)The Board of Selectmen should appoint a recreation commission to study and define recreation issues and make recommendations to the town.
- 2)The commission should research nearby town's recreation programs and budgets to identify suitable, successful, and feasible programs.
- 3)The commission should ascertain community support and desire for various programs. Surveys at town meeting, elections, and public hearings should be used to determine public opinion.
- 4)Where beneficial, joint programs with nearby towns should be investigated.
- 5)The commission, in cooperation with the Conservation Commission and the Land Trust committee, should investigate obtaining public access to Deering Lake and the Contoocook River for recreation purposes.
- 6)The commission, together with the planning board, should develop park and recreation dedication and development standards for subdivisions. Such standards function best when based on an overall park and recreation plan.
- 7)The commission, together with all affected departments, boards, and commissions, should prepare a long-term parks and recreation plan for Deering. The plan should guide the planning board in requiring subdivisions to conform to the plan, should guide other departments in accommodating park and/or recreation sites in their long-term plans, and should contain recommendations for the capital improvements program for capital investments in parks and recreation facilities.

Solid Waste

All solid waste disposal is currently handled through facilities located in Hillsborough. Deering is a member of the Concord Solid Waste Resource Recovery Cooperative which has its electric generating trash incinerator located in Penacook. Most of the household trash generated in Deering is delivered to the transfer station in Hillsborough, compacted, and transported to the Cooperative facility. Deering pays Hillsborough for access and use of the transfer station and pays for a share of the trash delivered to the Cooperative.

Deering residents are responsible for delivering trash to the Hillsborough landfill/transfer station. Deering currently has no facilities or equipment for handling solid waste.

To meet state requirements, the Town of Deering has a contract with the Town of Hillsborough to guarantee access to the waste water treatment plant for the disposal of septage. The town pays a flat fee to the sewer precinct and property owners pay for disposal of septage through the fee paid to the

septage hauler.

Recycling will be an integral part of solid waste management for every New Hampshire community before the year 2000. Hillsborough currently operates a voluntary recycling program. If Hillsborough institutes a mandatory recycling program, Deering residents may be forced to separate recyclables. According to the Solid Waste Management Plan of the Central NH Solid Waste District, the recycling program of Hillsborough includes or will include motor oil, batteries, tires, glass, newsprint, aluminum, metal, and white goods. The District, of which Deering is a member, adopted its long range management plan in November 1989 and adopted revisions required after state review in June of 1990.

Whether Deering continues its relationship with Hillsborough or not, the town must assume responsibility for solid waste management planning. Even if currently adequate planning and implementation are in place through the solid waste district or with Hillsborough, Deering is still responsible for educating its residents about the costs and environmental impacts of solid waste disposal practices and how individual households can participate.

The Transfer Station Committee should remain in operation and continue to research both cooperative efforts with Hillsborough in the operation of the transfer station and improved recycling facilities, and the feasibility and economy of separate facilities within the Town of Deering, including the possibility of obtaining suitable land for such purposes.

Highways and Public Works

Road Agent Peter Beard is responsible for public works and highways in the Town of Deering and was the source of information for the section. Road maintenance, snow removal, and town construction projects are the main tasks of the department.

Mr. Beard has periodically prepared long-term road improvement plans for town maintained roads. After three years, the most recent plan went unfunded or under funded for two years. The conflict is between the need for a continuous program of road improvement and the ability of the taxpayer to continuously fund such a program.

The highest priorities for road improvement projects are the resurfacing of Airport Road (\$175,000) in 1991; repairing Mansonville Road (\$210,000) in 1993; resurfacing Clement Hill, Dickie Hill, and Fisher Roads (\$200,000) in 1994; resurfacing Old County Road (\$200,000) in 1995; and resurfacing Reservoir Road (\$225,000) in 1996.

SUMMARY

Table 5 below summarizes the main initiatives and capital expenditures foreseen by Deering town departments over the next ten to twenty years. Many of the capital expenditures will be included in the capital improvements program.

Table 5

Community Facilities Improvements Summary

<u>Department</u>	<u>Description</u>	<u>Cost Est.</u>	<u>Year</u>
Town Hall/Gen'l Gov't	handicapped access, fireproof record storage, office space, and committee rooms	N A	L/T
Police Department	office space, safe records and evidence storage, N A	1991	
	and new cruiser \$ 20,000	1991	
	two full-time positions, add'l cruiser, and computerization	N A	2000
	three to four full-time officers	N A	2010
Schools	additional middle school capacity	N A	1993-
7		1997	
	additional high school capacity ?	N A	
1996/7			
	maximization of existing space	N A	1991-
3			
Fire and Rescue	new fire station # 3	\$ 50,000	1990-
1			
refurbish pumper 84M3	\$ 35,000	1990	
bog and wetland study	N A	1989-0	
engineered water holes	\$ 15,000	1991	
tanker replacement	\$ 60,000	1992	
new ambulance	\$ 65,000	1993	
East Deering substation	N A	growth	
Library	determine future direction	N A	
1990's			
Cemeteries	ten year restoration program	N A	-1995
	expansion within existing		
	cemetery ownership N A	1990-1	
	new cemetery space N A	1990's	
Recreation	create parks & rec commission	none	1991
	develop parks & recreation plan	N A	-1995
Solid Waste	education program	none	1990
	separate transfer station	N A	L/T
Highways & Public Works	resurface Airport Road	\$175,000	1991
	repair Mansonville Road \$210,000	1993	
	resurface Clement Hill, Dickie		

Hill, & Fisher Roads	\$200,000	1994
resurface Old County Road	\$200,000	1995
resurface Reservoir Road	\$225,000	1996

N A = Not Available L/T = Long Term

***LAND USE ELEMENT
Master Plan***

Town of Deering

Prepared by the
Deering Planning Board

with the assistance of the
Central New Hampshire
Regional Planning Commission
329 Daniel Webster Highway
Boscawen, NH 03303
Telephone (603) 796-2129

Adopted on April 10, 1991 by the
Deering Planning Board
following a public hearing
on January 9, 1991

Introduction

This section of the master plan looks at the natural environment in Deering and the cultural changes that have taken place in it. A survey and map of existing land use in 1990 is presented and the natural features are described and mapped. The land use element attempts to provide for the future land use needs of the town, based on population projections through 2010.

The policy basis for the land use element is found in the Goals and Objectives Statement of the master plan. The policies are relied upon to develop a future land use plan and map for the town which accomplishes the related goals and objectives and accommodates future development needs.

Existing Land Use

Background

Deering is located in northwestern Hillsborough County, approximately 25 miles southwest of Concord and 25 miles northwest of Manchester. As shown in Figure 1, Deering is bordered by Antrim, Bennington, Francestown, Weare, Henniker, and Hillsborough. The Town includes 31.7 square miles, or 20,290 acres of land.

Originally settled in 1765, Deering was incorporated in 1774. Agriculture and lumbering were the dominant land uses following the period of settlement. By the mid-nineteenth century, the Town had built a meeting house, a school, and a library. Private development had fostered a clothing mill, two saw mills, two hotels, and three wheelwright shops. The population reached its peak in 1820 with 1415 residents. At that time the community had become renown as a sheep and cattle raising area. The cleared grazing land must have given the Town a much different appearance than the wooded community of today.

Unlike many neighboring communities, Deering's land use was not greatly affected by the three major economic events of the 19th and 20th centuries: the advent of the mill economy; the establishment of rail transportation; and the creation of high speed vehicular roadways. Hillsborough and Antrim were much larger mill centers than Deering. A single rail line passed through Deering only to connect the region's major industrial centers of Keene, Peterborough, and Hillsborough. Finally, Deering's only Class II highway, Route 149, was essentially a farm to market road with significant grades, sharp curves, and narrow, unimproved shoulders.

As with other agricultural communities in the region, the Civil War marked the beginning of a period of economic decline as people moved westward for better agricultural opportunities. This is dramatically emphasized by the information gathered in two economic surveys nearly a half-century apart. In 1856, there were 1,089 sheep and 1,499 cattle in Deering, yet, by 1895, there remained only 192 sheep and 475 cattle. The human population declined to 287 in 1920.

Deering's isolation has resulted in a community unique in its land use in a number of ways:

- No area of commercial concentration exists. Deering residents use the commercial services of Hillsborough, Weare, and Antrim. It is not possible to purchase a loaf of bread or a gallon of fuel within Deering.
- Small businesses, generally located within the owner's residence, have formed the pattern of commercial activity in Deering. These businesses are almost exclusively local in nature; providing goods and services for a local buying public. The number of businesses in Deering unrelated to agriculture or silviculture is less than a dozen.
- The town center remains basically unchanged from its appearance in the mid-19th century. A few residential structures are clustered around the Town Hall and Congregational Church.
- Since the 1920's, Deering Lake has served as a recreational attraction. Summer homes, camps, and tourist homes have a long standing position in the community providing both tax revenues to the town and income to residents.
- Deering has been a "bedroom" community for many years. Most workers travel to their place of

employment in surrounding communities.

Existing Land Use Summary

Map 1, "Existing Land Use 1990", shows the location and category of land use throughout Deering. The map was developed by matching property descriptions on tax assessment cards with the appropriate locations on the tax maps. Locational data was refined with personal knowledge of the town. This work was accomplished by Susan Merrill, Secretary to the Board of Selectmen. The information was then transferred to the town base map at a scale of one inch equals 2,000 feet. The 7.5' USGS Topographic maps, 1987 provisional additions, Deering and Hillsborough quadrangles, were used to confirm locational information. The land use categories shown on the map are described below and in Table 1.

Residential This category includes primarily single family housing units, although three duplex houses and two apartment buildings were identified, and excludes manufactured housing. The most densely developed residential area is along the northern shore of Deering Lake. A total of 114 residential structures were identified along the shore of Deering Lake and its two inhabited islands. Most of these are seasonal cottages, although no precise data is available describing occupancy patterns. An additional 433 residential structures were identified throughout the remainder of town, as shown on Map 1.

In Table 1, 0.5 acres were assigned to shoreland houses and 2 acres were assigned to all remaining houses to determine that 923 acres in Deering are used for residential uses, exclusive of manufactured housing.

Manufactured Housing As defined in RSA 674:31, manufactured housing includes those homes manufactured off-site and built on a permanent chassis for transportation. This housing type warrants its own residential land use category because manufactured housing units represent one form of affordable housing and RSA 674:32 prohibits municipalities from excluding manufactured housing through land use regulations. Most manufactured housing units in Deering are located in two mobile home parks. Longwoods Mobile Home Park, located off Longwoods Road in the northwest corner of town near the Contoocook River, contains 95 units, while Johnson's City Mobile Home Park off Holton Crossing Road, contains 18 units. The remaining 39 manufactured housing units are scattered throughout Deering on individually owned lots. As shown in Table 1, manufactured housing occupies about 190 acres in Deering.

Table 1
Existing Land Use 1990

Land Use	Acreage	Percent of Acreage	Developed and Protected Land Area	Percent of Developed and Protected Land
Residential	923	4.6%	31.8%	
Manufactured Housing	190	1.0%	6.5%	
Commercial	101	0.5%	3.5%	
Gravel Pit	45	0.2%	1.6%	

Agriculture	425	2.1%	14.6%
Public/Semi-Public	700	3.5%	24.1%
Cemeteries	14		
Other Town Land	34		
Non-Profit Groups	413		
Vincent State Forest	239		
Rights-Of-Way	518	2.6%	17.8%
Roads	423		
Power Lines	95		
Subtotal Developed and Protected Land	2,902	14.6%	100.0%
Forest and Open Land	17,043	85.4%	
Subtotal Land Area	19,945	100.0%	
Water Bodies	345		
Total Area Land and Water	20,290		

Commercial This category includes retail and wholesale trade and personal and professional services. Uses in this category are limited in size and number in Deering. Eighteen business establishments are identified on Map 1. Most of these are home businesses, two are campgrounds, and one is a junkyard. Table 1 shows that commercial uses occupy about 101 acres in Deering.

Gravel Pit Daniel's gravel pit, located west of Route 149 and south of Manselville Road, is the only commercial gravel pit in Deering. The pit occupies about 45 acres of a 75 acre parcel.

Agriculture This category includes the growing of crops or raising of animals for commercial purposes. Agricultural operations were identified from current use records and verified based on the location of fields or open land on the USGS topographic maps. About 425 acres in small scattered parcels are in agricultural use in Deering.

Public/Semi-Public This category includes land and building owned or leased by the state, town, or by private groups which allow public access to the land; and institutional uses such as educational and religious facilities. A breakdown of the uses in this category and the acreage for each is given in Table 1.

Forest and Open Land This category consists of all undeveloped land under private ownership, including forested

and open land. Undeveloped land makes up 85.4% of Deering's total land area, or 17,043 acres.

Each land use category is expressed in Table 1 as a percentage of total land area and as a percentage of developed and protected land. Not surprisingly, residential land uses occupy the highest percentage of developed and protected land (38.3%). Public/Semi-Public is next with 24.1%, followed by agriculture with 14.6%, and by commercial and gravel pit, both less than 5%.

Current Use

On July 1, 1973 RSA 79-A:1 was enacted by the New Hampshire State Legislature. The "Current Use" law was a result of the increased awareness by the state that the preservation of open space was in the public interest and that in many cases the tax structure was a major impediment to preservation. Realizing that property taxation based on the highest and best use of the land was placing financial strains on individuals with large open land holdings, the legislature approved the Current Use tax assessment of property.

The law allows land in open space to be assessed at a lower rate than other land use classes as long as the property remains within an open space classification. As an additional incentive, the law stipulates that any change in the property's use that does not qualify for the open space assessment will result in a penalty levied against the property equal to 10% of the "full and true value of the property".

Since enactment of the legislation, Current Use has been an important open space tool in many towns and has made it possible for many individuals to maintain their property in open space. The Town of Deering has 14,259 acres or 70% of its total land area in the Current Use classifications shown in Table 2.

**Table 2
Current Use 1991**

Category	Acres	Percent
Farm Land	603	4.2%
Forest	10,984	77.0%
Wild Land	1,594	11.2%
Unproductive	139	
Productive	1,455	
Natural Preserve	506	3.6%
Wetlands	572	4.0%
Total	14,259	100.0%

Natural Features

This section describes Deering's topography, slopes, wetlands, and floodplains to provide an understanding of the natural environment within Deering in which development takes place. More detailed information and analysis regarding water resources is contained within the Water Resource Management and Protection Element of the Deering Master Plan. The natural features in Deering have historically played an important role in land use decisions. The character of the terrain has discouraged dense settlement patterns, industrial activity, and major transportation routes. With Deering's future likely to be that of a bedroom community, with little commercial or industrial development, the natural features of the landscape will continue to be the primary attracting force for residential development. The Town must strike a balance between land development and maintenance of the natural amenities that bring people here in the first place.

Topography

Topography, or relief, is the general lay of the land over a wide area and provides one means of describing how the area looks. The surficial physical features are a function of the underlying geologic processes and climate. The physical features can affect water drainage and runoff, soil formation, and vegetation. Topography also influences land use by affecting the suitability of the land for development and influencing both the type and cost of development.

The forested, rolling hills and rounded ridgetops in Deering, formed by the latest period of glaciation about 10,000 years ago, contribute to the scenic quality of the town. Wetlands and streams are found in narrow valleys throughout the town. The Contoocook River has formed a somewhat wider floodplain along the town's western border. While the outwash soils are suitable for agriculture in some areas of the floodplain, the flood hazard areas are not suitable for development due to potential loss of life and property.

Hedgehog Hill, located in the western part of Deering, forms the most prominent ridgeline, with eight peaks reaching above 1,240' elevation. East of Hedgehog Hill, Clark Summit is the highest point in Deering, at 1,560' elevation. In addition, six other hills reach elevations greater than 1,000': Bartlett Hill, Gregg Hill, Goodale Hill, Lock Hill, Sodom Hill, and Wilson Hill. These hills, as well as numerous smaller hills are not concentrated in any one part of Deering, rather they are scattered throughout the town.

Slope

Slope is defined as the ratio of change in vertical elevation to the change in horizontal distance. The degree of inclination of land influences soil erosion, runoff, and drainage capabilities. Land with steep slopes is more difficult to develop, and is more apt to adversely affect the environment than level sites. Therefore, slope is an important criteria in determining appropriate land use.

In order to categorize and discuss the limitations of slope, the Soil Conservation Service has divided slopes into the following categories and development limitations:

0-3% Flat - This is land which is essentially level. The slope would indicate easy accommodation of almost all land uses. Much of the land in this category within the Central Planning Region lies upon the floodplains of the major rivers. Other flat lands may have drainage problems if the soil proves to be relatively impermeable. Land with such drainage problems is generally best restricted to pasture and grazing, public open space, recreational use, or farming.

3-8% Gently Sloping - Land in this category is suitable for many uses. The slopes are not prohibitive for development, provide interest, and make for excellent natural drainage conditions. Most of this land may be found within the valley floors and river terraces of the planning region occupied by the glacio-fluvial deposits of the outwash plain.

8-15% Moderately Sloping - Slopes of this range begin to be restrictive for certain land uses, and may also prove too steep for most farming purposes. Low density residential development may be feasible if carefully planned and laid out. Most of this land is composed of glacial till deposits along the uplands of the region.

15-25% Steep Slopes - Substantial limitations exist for use of land in this category. Excavation and grading are almost always required, yet development not intensive in its land coverage may be accommodated with limited environmental impact, if carefully planned.

Over 25% Very Steep Slopes - These lands are most subject to adverse environmental impacts and heavy construction costs. Intensive uses are prohibitive; however, the interest and amenity provided by such lands makes them a valuable recreational resource.

Map 2 shows the location of steep slopes within Deering. The slopes were determined by measuring the spacing between contours shown on the 1987 USGS topographic maps for Deering. Very steep slopes, greater than 25%, are found along Hedgehog Hill and in numerous smaller areas throughout the town. Steep slopes, between 15 and 25% are quite abundant throughout Deering.

Areas particularly constrained by steep slopes include Hedgehog Hill and the vicinity of the town center and Deering Lake. However, the map illustrates that steep slopes can be found in every part of town, except in the floodplain of the Contoocook River.

Wetlands

Depending on location, wetlands perform a variety of useful functions for the environment. Adjacent to the ocean, they are spawning or nursery grounds for fish and shellfish, reduce coastal storm damage, and assist in saltwater intrusion control.

Inland wetlands perform a variety of necessary functions like:

- 1) Temporary flood control areas
- 2) Water quality maintenance by acting as a filter for silt and pollution, absorbing water-borne chemicals and nutrients
- 3) Groundwater recharge and stream flow maintenance
- 4) Erosion buffers
- 5) Timber production
- 6) Open space and recreational use

There are three methods used to identify wetland areas: first by the presence of wetland plants (Hydrophytes), second by the presence of wet soils, and lastly by soil saturation or flooding of the area. An in-depth inventory of all the wetlands within a Town would use all three criteria. The first method, however, would involve a long, costly

inventory of the town, whereas the latter two methods can be completed using existing, mapped information.

It is assumed that wet soils consist of those soils that are poorly drained and very poorly drained. The definitions are presented below:

Poorly Drained Water moves so slowly that the water table remains at or near the ground surface for a large part of the time (6 to 9 months). They also have the following characteristics:

- 1) Occupy nearly level to sloping sites (generally 0 to 8 % slopes)
- 2) Ponded for short periods in some places
- 3) Dark colored surface layer
- 4) Grayish colored subsoil, generally with mottles

Very Poorly Drained Water is removed from the soil so slowly that the water table remains at or on the ground surface for the greater part of the time (9 to 10 months). Very poorly drained soils have the following characteristics:

- 1) Occupy level or depressed sites
- 2) Frequently ponded
- 3) Commonly have a thick dark colored surface layer
- 4) Gray subsoil with or without mottling

Table 3 summarizes the types of wet soils, the soil name and the amount found within the Town of Deering. The location of poorly drained and very poorly drained soils is shown on Map 3. Deering contains 1,344 acres of poorly drained soils and 1,019 acres of very poorly drained soils, for a total of 2,363 acres or 11.8% of Deering's land area.

Table 3
Wet Soils

<u>Soil Name</u>	<u>Poorly Symbol</u>	<u>Very Poorly Drained</u>
Borohemists	197	X
Chocoura	395	X
Greenwood	197	X
Lyme	246B, 247B	X
Naumburg	214A, 214B	X
Ossipee	495	X
Peacham	549	X
Pillsbury	646B, 647B	X

Rumney	105	X
Searsport	15	X

Source: Hillsborough County Soil Survey,
USDA Soil Conservation Service, October 1985.

Like steep slopes, wet soils are scattered throughout Deering, occupying the narrow valleys between the rolling hills and portions of the wider floodplain of the Contoocook River. Major wetlands concentrations are found in the northwest corner of town on either side of Longwoods Road, along Dudley Brook in northeast Deering, and along the Piscataquog River and its tributaries in East Deering.

Deering's Wetlands Conservation District provisions of the zoning ordinance prohibit most development within wetlands. Additional provisions require a minimum setback of 75 feet for septic systems from wetlands, and prohibit consideration of contiguous wetlands 20,000 square feet or larger as part of the minimum lot size requirement of any building lot.

Floodplains

Floodplains are the periodically inundated flat lands adjacent to rivers and streams. Floodplains serve as storage areas for water during times of flooding and provide travel corridors for wildlife. Due to their important ecological characteristics, development in floodplains presents some special problems, including: (1) a high probability of property damage during flooding; (2) the restriction of periodic water storage resulting in potentially greater flooding; and (3) the increased likelihood of erosion and sedimentation. The latter factor can cause increased turbidity of water in rivers and streams.

Flood hazard areas, those areas with at least a 1% chance of flooding in a given year (once every 100 years), have been mapped by the federal government in Deering for flood insurance purposes. This map, called a Flood Insurance Rate Map (FIRM), is available at the Town Hall. Flood hazard areas are also shown on Map 4.

Deering's National Floodplain Ordinance, last revised in 1987, requires all development within the 100 year floodplain to have a permit. New construction and septic systems must be floodproofed. Development within the regulatory floodway, which is the channel of a river or other watercourse and adjacent land areas that must be reserved in order to discharge the base flood, is prohibited if it will cause an increase in flood levels.

Floodplains in Deering are found along the Contoocook and Piscataquog Rivers and along Dudley Brook.

Aquifers

A detailed description of stratified drift aquifers, those located in layered sand and gravel deposits, is given in the Water Resource Management and Protection Element of the Deering Master Plan. Stratified drift aquifers are important because they usually contain large volumes of water suitable for supplying municipal and industrial needs. The location of potentially high yield stratified aquifers in Deering is shown on Figure 2.

Deering has established an overlay zone to assure the availability of public and private water supplies for future growth of the Town. A hydrogeologic study is required for major development applications before the planning board and certain potentially polluting land uses are prohibited.

Land Use Constraint Analysis

Land use constraints are the physical features of the land which prevent or inhibit the use of land for particular uses. For the Town of Deering we have inventoried features such as wet soils, slopes, and flood plains to provide insights into the proper location of future development in Town. When combined and analyzed, the inventoried features constitute the Land Use Constraint Analysis.

When wet soils, slopes greater than 15%, and flood plains are overlaid, no consistent pattern emerges. These severe land use constraints are distributed throughout the Town. Wet soils occur intermittently in every quadrant, with large concentrations found along the Contoocook and Piscataquog Rivers and along Dudley Brook.

Large areas of steep slopes occur along Hedgehog Hill, west of Deering Center, and surrounding Deering Lake. Steep slopes are found throughout Deering's predominant north/south ridgelines. As described in the Transportation Element of the Master Plan, this has constrained road development and travel in the east/west direction in Deering.

The Contoocook River has the predominant floodplain within Deering, but other floodplains occur in other areas in Town. The Piscataquog River and Dudley Brook each have significant floodplains.

Taken together, no particular quadrant or section of Deering has a significantly higher concentration of constraints due to the physical features of wet soils, steep slopes, or floodplains than other quadrants or sections. There are obviously smaller areas which are severely constrained. With no clear pattern, there is no need for a "hinterlands" zone based on land use constraints.

Land use constraints are only one tool for determining the best use of land on a town wide basis. Other factors such as existing land use, projected needs, specific concerns like aquifers, farmland protection, and the goals and objectives of the community should be considered.

Future Land Use

Deering's natural features combined with its cultural features, specifically poor transportation access and lack of public water and sewer facilities, have kept the town a rural community despite the regional decline in agriculture over the last thirty years. Forest land and low density housing are the primary land uses in Deering.

The Goals and Objectives statement for the master plan provides general guidance for future land use: to maintain the town's rural character while providing for commercial opportunities and for protection of natural resources. The planning board implements the master plan by proposing zoning ordinance amendments and through subdivision and site plan review.

Map 5, "Future Land Use", and the recommendations contained in this section are the culmination of the planning process. In adopting the Future Land Use Map and recommendations contained herein, the Planning Board has set the course of the development of the Town of Deering for the future. The Map is subject to change, revision, and update from time to time, but until a new map is adopted, the Future Land Use Map and accompanying recommendations should form the basis for the land use decisions within Deering.

Attracting commercial development may be the most difficult task for the planning board. The best opportunities for larger scale commercial development may be available if a southern Route 9/202 by-pass is constructed through Deering. More detailed information on this subject is contained in the Transportation element of the master plan.

While local demand may not presently exist to support businesses which supply neighborhood goods and services, demand may develop if population projections for the next 20 years are fairly accurate. Therefore, the planning board should begin to plan for small scale commercial development now. The current town zoning ordinance allows commercial uses by special exception anywhere in town. Commercial uses are not well defined and no special exception criteria are listed in the ordinance.

In order to protect property values and provide for attractive commercial development, permitted commercial uses should be clarified in the ordinance. Home businesses should be defined and permitted by special exception in any district. In order to keep home businesses from becoming the principal use of a property, in which case the use would belong in a commercial zone, zoning regulations could: limit the percentage of floor space occupied by the business; limit the number of employees; establish small scale sign criteria; limit the number of deliveries; and limit parking of commercial vehicles. Special exception criteria should also be included in the zoning ordinance to insure that proposed special exception uses do not impair the integrity or character of the district in which it is located.

Potential commercial and neighborhood commercial areas are shown on the Future Land Use map. The commercial areas are located with the proposed Route 9/202 by-pass in mind. The neighborhood commercial areas are potential areas with access to Route 149 that could provide space for future retail or office uses that serve the community. It should be stressed that such areas should remain nodal in nature, rather than linear. If Deering wishes to maintain its rural character it should avoid commercial strip development. In developing nodal commercial areas, careful attention is paid to controlling road access, keeping parking areas minimal and unobtrusive (i.e. to the rear of buildings instead of directly along the road frontage), keeping signage to a minimum, and generally providing aesthetically pleasing development.

The Future Land Use map provides several possible locations for neighborhood commercial development. One or more of these areas could be chosen for proposed neighborhood commercial zoning districts, or the planning board could develop the written guidelines for such zones and recommend a "floating zone". With this innovative development technique, the planning board can establish the criteria for the zone in the zoning ordinance, but the location of the district would not be determined until a development application is received and a zoning amendment is adopted.

Deering Center was not identified as a potential neighborhood commercial area. The historic character of the

existing buildings and the character of adjacent land does not lend toward commercial development. The sense of the community and maintaining the character of Deering lead the planning board to designate this area as historic on the Future Land Use map.

While significant natural features and open land are found throughout Deering, the Future Land Use map includes some specific recommendations for conservation areas. The intent is to steer development away from these areas since more suitable land is available in Deering. The Hedgehog Hill area is characterized by very steep slopes and inaccessible land. The area also contributes to the scenic character of Deering, as viewed from various locations in town. The Dudley Brook and Piscataquog River corridors are characterized by bands of wetlands. Such corridors are important for maintaining the hydrologic functions of the wetlands, including flood storage and wildlife habitat. In addition to these reasons, the Contoocook River floodplain is designated as a conservation area because it contains some of Deering's best farmland and because of the danger posed by potential flooding.

The remainder of the town is classified as rural residential on the Future Land Use map. The town has zoning overlay districts protecting wetlands and aquifers from adverse development. As shown on Map 2, steep slopes are found throughout Deering. The steep slopes in rural residential areas could be protected through a similar overlay zone. The current Deering Subdivision Regulations help to preserve steep slopes with erosion and sediment control guidelines. Cluster residential development can also help to preserve the more sensitive areas of specific parcels by clustering the houses together on the less fragile areas while maintaining the same overall development density.

*HOUSING ELEMENT
Master Plan*

Town of Deering

Prepared by the
Deering Planning Board

with the assistance of the
Central New Hampshire
Regional Planning Commission
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Boscawen, New Hampshire 03303
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Adopted on April 10, 1991 by the
Deering Planning Board
following a public hearing s
on November 14, 1990 and January 9, 1991

INTRODUCTION

The purpose of the housing element of the master plan is to provide the factual and policy basis for decisions related to housing. The housing element seeks to implement the appropriate goals and objectives of the master plan by providing the information and analysis needed to develop and employ effective strategies to meet the housing needs of the community.

Goals 5 and 6 of the Goals and Objectives statement of the Master Plan are as follows:

Goal 5: Provide for safe and decent housing for a broad range of persons. Housing should be diversified in terms of needs and desires, price, size and type of units, and locations within the overall guidelines of the Master Plan and service constraints of the Town.

Objectives: The land use regulations should be reviewed and amended as necessary to ensure that neither multi-family nor manufactured housing is effectively prohibited in Town.

The Town through its boards, commissions, regulations, and other available means should encourage the rehabilitation and upgrading of existing housing as a cost effective method to improve the quality of the Town's housing stock.

The Planning Board should investigate development bonuses and incentives where a developer is providing housing for young families or elderly residents so that neither group is priced out of Town. Rental apartments are recognized as an important part of the overall housing mix and lot size requirements should be such that apartments will be developed.

Encourage rental apartments in large, older homes to provide housing opportunities which respect Deering's rural character and provide economical use of property.

Goal 6: Ensure that new development bear its fair share of the costs of public facilities and services. Existing development should not subsidize additional facilities and services required to accommodate new development.

Objectives: Town ordinances, regulations, and policies should be clarified to ensure that the Planning Board, Zoning Board of Adjustment, Conservation Commission and other Boards and Commissions have the authority to require that proponents of new or enlarged developments submit or pay for complete impact assessments.

Town Boards and Commissions should regularly evaluate proposals before them for impacts on public facilities and services.

A development impact assessment system should be investigated and instituted within the constraints of New Hampshire laws.

The Planning Board should develop a six year schedule of capital improvements, to be updated annually, to show when new or improved public facilities should be built and how the projects will be funded.

The above goals and objectives were adopted by the Planning Board and will be used to guide the housing element. This section of the master plan will address each objective to provide direction for implementing those objectives. The master plan does, however, contain goals and objectives for the broad range of community concerns and, therefore, the needs for housing must be balanced against other needs.

HOUSING SUPPLY

In 1980, the Town of Deering had 461 total housing units of which 400 were year-round units and 61 were seasonal units. Of the year-round units, 317 were owner occupied and 52 were renter occupied. The remaining 31 year-round units were vacant. Approximately 38% of the total housing units were built since 1970; 28% were built between 1940 and 1969; the remaining 34% are pre-1940 built units.

Table 1
Housing Units

	Percent		
	1970	1980	Change
Seasonal	179	61	- 66
Year-Round	196	400	104
Occupied	178	369	107
Owner	157	317	102
Renter	21	52	148
Vacant	18	31	72
Total	375	461	23

Source: U.S. Census: 1970 and 1980.

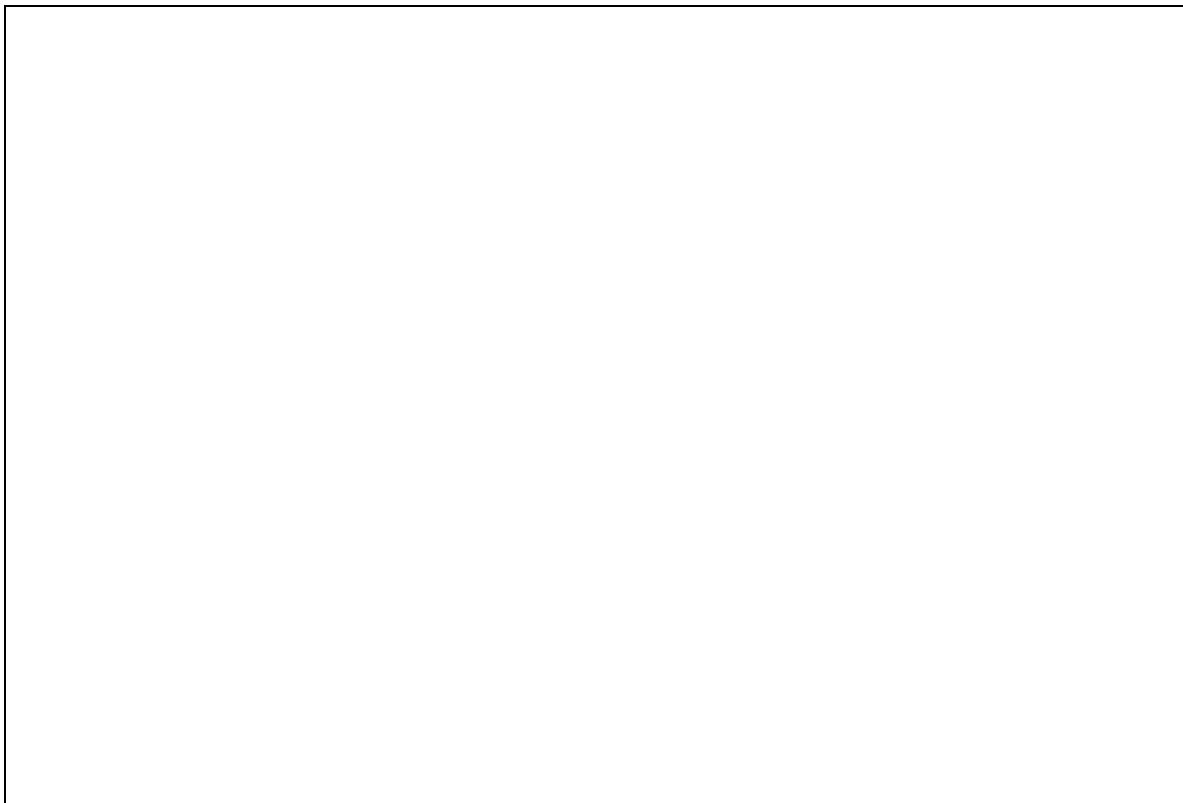
Table 2
Age Of Housing Units

	Number	Percent
1970 +	175	38
1940 - 1969	129	28
pre-1940	157	34
Total	461	100%

Source: U.S. Census 1980, Detailed Housing Characteristics.

In 1980 a majority of Deering's housing supply, 79%, was single family housing. Manufactured housing was second at 17%. The remaining 4% was multi-family housing. When the number of residential building permits issued from 1980 through 1988 are added to the 1980 Census figures, single family housing still dominated the Deering's housing supply at 75% with manufactured housing at 21% and multi-family housing at 4%. A summary of the housing supply by type and residential building permits issued from 1980 through 1988 is provided in Figure 1.

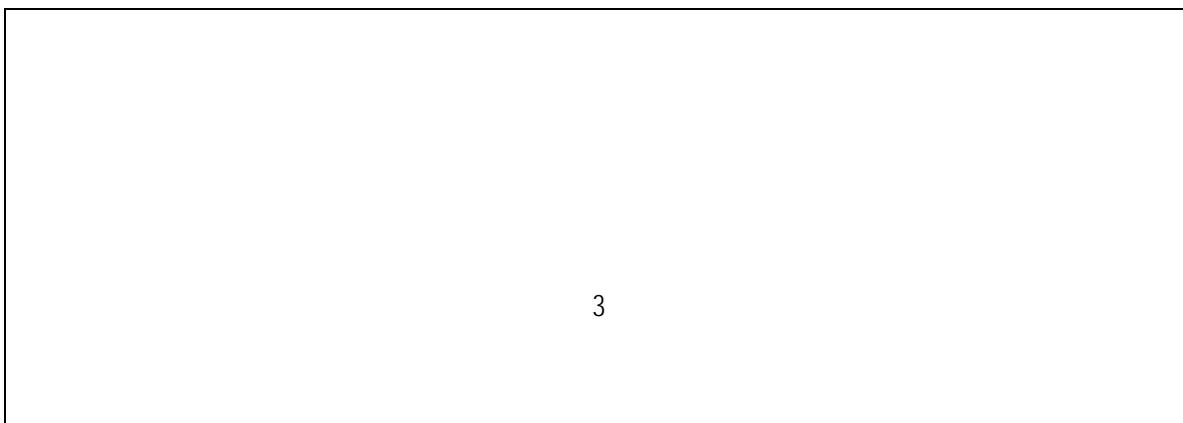
Figure 1



Source: 1980 Census, Current Estimates & Trends in NH Housing Supply, Update 1988, OSP.

As shown in Figure 2, the distribution of housing types in Deering varies from its surrounding communities. Still, Deering has a large proportion of single-family housing at approximately 75%.

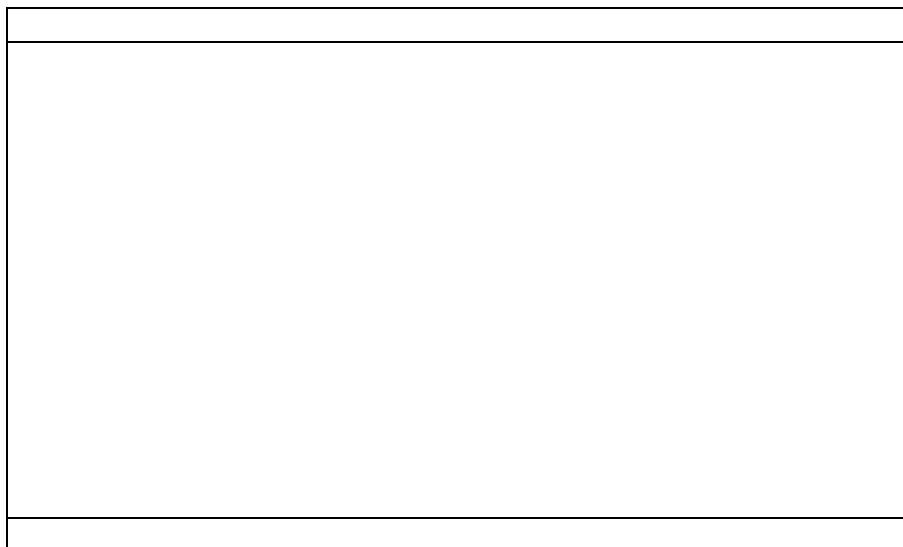
Figure 2



Source: Current Estimates & Trends in NH Housing Supply, Update 1988, OSP.

HOUSING NEED PROJECTIONS

Historic population growth since 1960 and population projections through 2010 for Deering, the CNHRPC Region, and New Hampshire are shown in the Figures to the right. Deering's population increased from 345 in 1960 to 1,041 in 1980 for an average increase of 37 persons, or 10.6%, per year. In comparison, the CNHRPC Region went from a population of 53,944 in 1960 to 76,901 in 1980, an average increase of 1,208 persons, or 2.2%, per year. New Hampshire's population was 606,921 in 1960 and in 1980 was 920,475 which was an average increase of 16,503 persons, or 2.7%, per year.



According to OSP's 1989 population estimates, Deering's population from 1980 to 1989 increased annually by approximately 85 persons or 8.1%. For comparison, the CNHRPC's population increased annually by 2,129 or 2.8% for the same period. New Hampshire's population also increased during this period by 23,316 persons, or 2.5%, per year.

Based on the adopted CNHRPC population projections, Deering will continue to grow at a rate of 108 persons, or 7.2%, per year for the 1990 to 2010 period. The projected growth rate for the same period for the CNHRPC Region is 3,250 persons, or 3.4%, per year, and for New Hampshire is 31,296 persons, or 2.8%, per year.

Population and housing unit projections are by nature speculative. Projections are based on current trends and assume that existing relationships will either continue through the projection period or that relationships will change at a regular, observed rate.

Table 3
Planning Projections Used for the Master Plan

1990 2000 2010

Population	1,511	2,474	3,572
Housing Units	645	1,132	1,724
Persons/Unit	<u>2.34</u>	<u>2.18</u>	<u>2.07</u>

Calculating the housing unit projections result in a decreasing size of families. The trend toward smaller family size and more single and no children households has been documented by the Census Bureau for New Hampshire and the nation. The result of the calculation is that housing units increase at a faster rate than population. As shown above, the growth in housing units in Deering is estimated to increase by approximately 9% annually from 1990 to 2010.

Based on Table 3, an average of 57 dwelling units per year must be constructed in Deering to meet its housing

needs through the year 2010. Using the latest proportions of housing unit types for Deering (see Figure 2) the estimates contained in Table 3 have been allocated to single family, multi-family, and manufactured homes, and are provided in Table 4.

Table 4
Projected Housing Units By Type

	Annual 1990	Annual 2000	Annual 2010	Change	Percent
Single Family	483	848	1,291	43	8.9
Multi-Family	25	44	67	2	8.8
Manufactured Housing		137	240	366	12
Total	645	1,132	1,724	57	8.8

Low and Moderate Income Needs deserve special attention in the planning process. Regardless of how affluent a community is or how healthy the local economy becomes, every community has a certain proportion of its population which has difficulty meeting the need for housing.

According to the 1980 Census, the number of families living at or below the poverty line (50% of median income) was approximately 16%, and the number of families living at or below moderate income (75% of median income) was about 34%. That calculates to 45 families at or below poverty level and 95 families at or below moderate income level. The Regional Fair Share Housing Allocation Formula, adopted in August 1989 by CNHRPC, shows that Deering's total fair share obligation was 17 dwelling units estimated for 1987.

Meeting the current needs for Deering's low and moderate income population would require just under two affordable housing units be added to the housing stock each year for ten years. These two units would be in addition to any additional needs that may arise during the ten years. Since the definitions of low and moderate income are proportions of the total population, the proportion of low and moderate income families will remain relatively constant throughout large populations. The proportion of such families within any single town or region, however, might vary widely. Additionally, as the median income rises, 50% of that median also rises. Which means that persons of low and moderate income, even though at 50% or 75% of median income, might be in a much better position financially.

Special Population Needs, relates to the elderly, the handicapped, families in crisis or transition, and persons needing emergency shelters. Few if any reliable numbers are available for any of these groups with the exception of the elderly. The main responsibility and obligation of the Town of Deering is to ensure that adequate provisions exist within the Zoning Ordinance for the location of housing for the special population needs.

Elderly, on the other hand, are the fastest growing segment of the population throughout the country. Consideration of special provisions to ensure that adequate housing is available to elderly persons is therefore justified. Based on the projections in Table 3 and the OSP projections for age distribution, growth in Deering's 65 and older population will be as follows:

	Annual 1990	Annual 2000	Annual 2010	Change	Percent
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148 265 350 11 7.2

Since the elderly rarely live in households with children, we can not use the average size household to convert population to dwelling units needed. However, if we use an average of 1.5 persons per elderly housing unit, we have a need for 135 additional units by the year 2010, or an average of 7 units per year.

In the past most of the need for elderly housing has been met by the independent elderly themselves. For the most part, they lived in houses on which they had paid off the mortgage prior to retirement. As property taxes increase, however, persons on fixed incomes may need alternative housing or property tax relief.

It is difficult to predict how many special elderly housing units will be needed by the year 2010, since the elderly are healthier, living longer, and remaining independent longer. The land use regulations must, however, be responsive to the need for special elderly housing, especially since the elderly are growing in population so rapidly.

Deering's Zoning Ordinance of 1986 does not specifically address elderly housing, group homes, or emergency housing. The Zoning Ordinance does however make reference to apartments which are permitted by right with a maximum of two units in one building per two acre lot. In addition, cluster developments are permitted subject to provisions specified in the Zoning Ordinance and requirements stated in the Subdivision Regulations.

HOUSING AFFORDABILITY

The Planning Board should investigate development bonuses and incentives where a developer is providing housing for young families or elderly residents so that neither group is priced out of Town. Multi-family units are recognized as an important part of the overall housing mix and lot size requirements should be such to encourage this type of housing.

During the 1980's the gap between median income and the median purchase price of a home has grown dramatically. In its 1987-1988 Housing Advisory Plan the New Hampshire Housing Finance Authority states the following:

- In 1986 the average price of a house in New Hampshire it was \$110,181. For new homes the figure was \$130,780.
- During 1986 the construction of assisted rental housing affordable to very low income households came to a virtual standstill despite the annual need for approximately 2,000 additional units state wide.
- The average purchase prices for housing statewide rose by 102% between 1982 and 1986.
- The family with an average income in New Hampshire in 1986 only made 62% of the income needed to purchase the average home.
- The ratio between average income and average home purchase price in 1986 was .284 (31,263 / 110,181).

Communities can do little, if anything, to affect the market demand for housing. However, the regulations of the

Town of Deering do affect the cost of home construction. More stringent codes, larger lot size requirements, and lengthy reviews increase developers costs which may be passed on to the consumer.

[Note: *Housing costs are far more complex than town regulations. The market reacts to many factors.*]

HOUSING AVAILABILITY

This section attempts to determine how many dwelling units could be constructed in Deering under current planning and regulatory practices. Earlier in this element the projected number of housing units through 2010 was identified. In this section it will be shown that, under current planning and regulatory practices, the available land can support the number of units projected, with enough surplus land to maintain competition between developers.

Both the current Deering Zoning Ordinance (agricultural/residential) and the Future Land Use Map (rural residential) provide for a residential district. An analysis of the Existing Land Use Map yielded acreages for each of the residential areas. Table 1 of the Land Use Element identified how much residential land is already developed. The total land area in Deering is 19,945 acres. Subtracting 1,113 acres for existing residential development, and 1,789 acres for non-residential development and public- semi-public lands, leaves approximately 17,000 undeveloped acres for possible residential development.

This undeveloped acreage needs to be adjusted downward to account for unbuildable land and new road construction. For the most part, the unbuildable areas in Deering are designated for Conservation on the Future Land Use Map. This section contains approximately 3,800 acres leaving about 13,200 acres for possible residential development.

The Rural Residential section of the Future Land Use Map contains some additional amount of unbuildable lands. Therefore, the 13,200 acres was further adjusted downward by 15% with 11,220 acres.

The final downward adjustment is for the construction of new roads. In the central region it has been found that anywhere from 2% to 30% of the gross acreage of a subdivision is used for roads. The variation is dependent on lot size (i.e. the smaller the lot, the more land needed for roads). For the Rural Residential section of the Future Land Use Map, a 5% deduction will be used leaving approximately 10,500 acres.

This 10,500 acres represents the net area available for residential lots in the Rural Residential section identified on the Future Land Use Map. The current Zoning Ordinance allows both single family and multiple family dwellings. To determine how many units could be built in the available area, the estimated available land must be divided by the required lot size.

Under the "Minimum" column is the result if you assume that all residential lots use the two acre minimum requirement. The column "High" is the number of residential lots allowed assuming a lot size of five acres. The totals under the "Average" column represents a realistic potential for residential lots under the current planning and regulatory system. Depending on market demands, the actual units constructed will vary.

Table 5
Potential Dwelling Units

"Minimum"	"High"	"Average"
5,250	2,100	3,000

The purpose of the calculations in this section was to demonstrate whether sufficient land was available for residential development. The projections for housing indicated that an additional 1,079 residential units would be needed by the year 2010. Under the current planning and regulatory system, more than twice that many units could possibly be constructed under normal circumstances on the land designated for Rural Residential on the Future Land Use Map.

That means that Deering's estimated housing needs through the year 2010 can be met in the most suitable building areas where town services can be most efficiently provided. It also means that areas of Deering where development is to be discouraged, are not required to be developed to meet housing needs.

CONCLUSIONS

Special housing needs do exist and will increase during the planning period. The priority needs are low and moderate income housing and elderly housing. Additional needs include handicapped accessible housing, families in crisis or in transition, and emergency shelters.

To meet statutory obligations, Deering can not effectively prohibit any class of persons from living within its jurisdiction. On the other hand, Deering is not required to provide housing for special groups, but must allow housing to meet every group's special needs.

Since multi-family and manufactured housing are an important option for low and moderate income, as well as working class families, regulations governing such housing are subject to intense scrutiny by the courts. Deering should periodically review its regulations to ensure that no class of persons is effectively prohibited from living within the community.

Recommendations

Recently enacted legislation requires that each municipality must consider its regional share of the need for low and moderate income housing. The Central New Hampshire Regional Planning Commission, as required by state law, has prepared such an analysis in 1989 and will update the analysis at five year intervals. The Deering Planning Board should evaluate local ordinances and regulations with the findings of the regional analysis to ensure compliance with state statutes.

Deering's Zoning Ordinance needs to have provisions that specifically allow for low and moderate income housing and housing for the elderly. In addition, the Planning Board, through its Subdivision and Site Plan Regulations Regulations, should encourage the development of affordable housing and elderly housing.

Finally, the Housing Element of the Master Plan should be reviewed and updated no less often than every five years. The projections and analyses should be adjusted and revised based on available information and recent experience.