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## **Introduction**

The Town of Newmarket has undertaken this ten-year Recreation Master Plan to provide guidance and set priorities for recreation facility and management improvements.

The project was undertaken with the following objectives:

- Collect and evaluate detailed population and demographic information to provide a base for projecting future recreation needs.
- Prepare an inventory of the existing recreation facilities in Newmarket, including public, non-profit and private facilities and resources.
- Determine the recreation activities, preferences and expectations of Newmarket residents. Incorporate local citizen concerns, viewpoints and recommendations in the planning process.
- Provide a set of initiatives that will guide the Recreation Program in maintaining, upgrading, replacing and expanding the Town's recreation facility service capacity.
- Provide the Recreation Master Plan Advisory Committee and department staff with recommendations to sustain and improve the effectiveness and efficiency of recreation facility operations and management.
- Develop a set of visual representations for the Town's existing and proposed recreation infrastructure.
- Draft the Recreation Master Plan, based on the policy guidance of the Town Master Plan and incorporating a range of professional and public contributions, that will optimize the public recreation opportunities for the Town of Newmarket.

The activities undertaken to accomplish these objectives have included

- Over 20 visits to Newmarket to seek out and evaluate land tracts that could provide additional recreation opportunities for residents, to meet with, residents, and to evaluate facilities and become better acquainted with recreation needs in the Town.
- Participation in meetings, primarily with the Recreation Master Plan Advisory Committee but also with the Town Council, School Committee, and with Recreation and other Town Staff.
- Joint field trips with Open Space Committee, Recreation Master Plan Advisory Committee, and Town Staff.

- Analysis of maps, aerial photographs, existing plans and reports.
- Advice and assistance to the Recreation Staff and Recreation Master Plan Advisory Committee in preparing and administering a recreation survey to a random survey of Newmarket Residents.
- Help with organization and participation of a public meeting of coaches and recreation volunteers to assess recreation needs.
- Review of Town records to determine land ownership for tracts with recreation potential.
- Preparation of draft materials for review by Recreation Master Plan Advisory Committee, Town Council, School Board and Town Staff.

This Recreation Master Plan is organized to assist the Town with its priorities for public recreation resource investment and resource management. The importance of recreation is being increasingly recognized for both its health and social benefits to communities. This plan will address the population characteristics of Newmarket and the recreation trends here and elsewhere. These findings will be the basis for assessing the characteristics and features of existing recreation facilities and the recommendations for changes and additions to the Newmarket recreation infrastructure.

## **Section I: Summary and Recommendations**

This ten-year recreation master plan focuses on three areas of action:

- Actions to meet needs for existing recreation programs
- Actions to address expressed recreation needs and desires of residents
- Actions to increase local recreation opportunities

Generally, although not exclusively, these categories also represent the priorities and strength of the recreation needs for the town. Scheduling actions generally would follow these priorities, scheduling high priorities early in the process and lower priorities later. Financial requirements, alternative strategies for accomplishing objectives and unanticipated opportunities also can affect the schedule for implementation. Finally, many actions are multi-year initiatives and both funding and implementation will last for several years.

### **Actions Needed for existing programs**

- Build athletic fields at Leary Field
- Build gymnasium addition to Community Center
- Rehabilitate and upgrade existing facilities at Landroche, Beaulieu and Beanie Howcroft Fields – including providing permanent sanitation facilities and increase storage space
- Upgrade area at Elementary School
- Establish connections and walking facilities for The River Walk

### **Actions Needed for expressed recreation demands**

- Establish pedestrian trails at Heron Point, Tuttle Swamp/Grapevine Hill and Leary Field / Loiselle
- Establish ice skating facility at Langs Lane
- Build outdoor swimming beach at Riverside
- Create neighborhood parks

### **Actions to Increase Recreation Opportunities**

- Build dog park between The River Walk and water treatment facility
- Establish bicycle lanes when local roads are upgraded/resurfaced
- Establish second athletic complex to increase local sports programs
- Include a dome as part of athletic complex for off-season, bad weather activities
- Build disabled accessible fishing facilities at Piscassic Park
- Create local network of connecting trails with Manchester – Rockingham Junction rail trail

### ***Recommended Actions – Year One***

1. Initiate Leary Field Construction
  - a. Acquire adjoining properties
  - b. Construct soccer field
  - c. Develop access and parking

- d. Build storage building / snack bar
2. Develop plan and schedule for rehabilitating and upgrading existing athletic fields
3. Establish connections between The River Walk, Heron Point and Town land on Youngs Lane
  - a. Compare options of land acquisition and alternative routes
  - b. Incorporate walkability options for downtown area

***Recommended Actions – Year Two***

1. Continue Development of Leary Field
  - a. Initiate leveling of adjoining land for athletic fields
  - b. Build baseball/softball field
2. Develop Town Trails Plan for Heron Point, Tuttle Swamp/Grapevine Hill and Leary Field / Loiselle
3. Initiate schedule for rehabilitating / upgrading athletic fields

***Recommended Actions – Year Three***

1. Continue Development of Leary Field
  - a. Build playground
  - b. Landscaping and amenities
2. Undertake planning for Gymnasium at Community Center
  - a. Develop interior plan and specifications
  - b. Develop and initiate fund raising plan
3. Begin construction of trails at Heron Point
4. Continue schedule for rehabilitating / upgrading athletic fields

***Recommended Actions – Year Four***

1. Initiate construction of Gymnasium at Community Center
2. Continue construction of trails at Heron Point
3. Continue schedule for rehabilitating / upgrading athletic fields
4. Begin planning, design and seeking funding for bicycle lanes for local road upgrades

***Recommended Actions – Year Five***

1. Complete gymnasium at Community Center
2. Begin construction of trails at Leary Field / Loiselles property
3. Undertake planning and public meetings for neighborhood parks
4. Continue schedule for rehabilitating / upgrading athletic fields

***Recommended Actions – Year Six***

1. Establish public skating at Langs Lane pond or at another appropriate location
2. Continue schedule for rehabilitating / upgrading athletic fields
3. Establish first neighborhood park, including an outdoor basketball court
4. Continue construction of trails at Leary Field / Loiselles property

***Recommended Actions – Year Seven***

1. Establish second neighborhood park
2. Redesign and construct multi-use areas for elementary school
3. Begin construction of trails at Tuttle Swamp / Grapevine Hill based on NH Soil Consultants Master Plan and Town Trails Plan (#3 above)
4. Initiate cooperative planning with Newfields and the State for connections with Manchester – Rockingham Jct. Rail Trail

***Recommended Actions – Year Eight***

1. Acquire land and design facilities for addition athletic fields focusing on baseball and multi-use fields (soccer, lacrosse, football)
2. Establish third neighborhood park
3. Build swimming access at Riverside
4. Begin establishing bicycle lanes when upgrading selected local roads, based on design and funding

***Recommended Actions – Year Nine***

1. Prepare master plan for athletic field complex

2. Undertake feasibility study of including a dome as part of the athletic facility
3. Establish fourth neighborhood park
4. Study feasibility of building an indoor/outdoor swimming pool

***Recommended Actions – Year Ten***

1. Initiate construction of baseball field at new athletic complex
2. Establish dog park
3. Complete establishment of neighborhood parks
4. Build disabled accessible fishing facilities at Piscassic Street Park
5. If feasible seek appropriate location and funding opportunities for indoor/outdoor pool

***Note: The required land base needed for a new athletic complex is likely to be approximately 20 acres.***

## **Section II: Local Population and Trends**

### **2.1 Profile of Newmarket**

In comparison to the other communities in the State of New Hampshire, Newmarket census data describe the community as a bedroom community, consisting of a younger population focused on education or early career professional life pursuits. A few unique characteristics:

- A large proportion of Newmarket's total population is college age individuals.
- Newmarket's population includes a larger than average number of individuals pursuing arts and entertainment as their profession.
- A larger than average population are working individuals in the labor force. This seems to indicate that there are fewer retired individuals in Newmarket and that a great majority of the population are younger individuals and families becoming established in their lives and professions. This is reinforced by the finding that median and mean household incomes are generally lower than the state average.
- A larger than average number of workers commute to work in personal vehicles.
- The housing mix in Newmarket consists of a larger proportion of condominiums and rental units than what is typically found in the average New Hampshire community. Also, those living in Newmarket have lived in the community for a shorter period than the state average. This defines Newmarket as a bedroom community providing housing and services for a younger population that are living in Town for a shorter term of residence.
- Because of the large student and young professional population, the school enrollment is less than the average New Hampshire community. Marital status describes Newmarket as having a larger proportion of singles than average.

A population having these characteristics would create a demand for activities that are predominantly focused on the interests of a younger aged average than typically found in New Hampshire communities. Examples of activities include:

- Walking, jogging and mountain biking trails that would complement the interest in keeping in good physical shape
- field facilities that would allow for league play or informal young adult soccer, softball or other field sports
- courts for tennis, basketball
- gymnasium facilities for year-round indoor sports

### **2.2 Population Growth**

Determining the need for recreation facilities for a community requires attention to several factors. These include population characteristics such as changes in population numbers, age structure and distribution; resident activity preferences and their desired recreation opportunities or potential alternatives. Some findings may be short-term and "of the moment", while others are long-term and lasting.

Fundamental to all local trends are the patterns of population change. In Newmarket, population remained relatively stable for most of the past century. The Town Master Plan points out that, in 1910 the population was 3,348 and that it did not exceed that number again until 1970 when it reached 3,361. Since that time, however, it has grown quite sharply, more than doubling:

1970	3,361
1980	4,290
1990	7,157
2000	8,027

The Town of Newmarket Master Plan cites figures from the New Hampshire Office of State Planning projecting Newmarket’s population growth:

2005	9,123
2010	9,728
2015	10,621

More recent data from the Office of Energy and Planning suggest more moderate growth

2005	8,490
2010	8,910
2015	9,240

These projections are five-year increments while the documented census counts are ten-year increments. If we equalize them by dividing the ten-year increments into five year increments we see that the growth trend has been fairly consistent over the past 35 years with a couple of growth spurts. In fact the growth during the nineties was slightly less than the seventies after the spurt of the eighties. Another period of rapid population growth that is finishing now, probably will be followed by slower growth but growth that is significantly greater than during the seventies or nineties.

1970-75	464		
1975-80	464		
1980-85	1,433		
1985-90	1,433		
1990-95	435		
1995-00	435		
2000-05 (old)	1,096	2000-05 (new)	463
2005-10 (old)	605	2005-10 (new)	420
2010-15 (old)	863	2010-15 (new)	330

The significant factor here is that this is continual growth. Unlike the period 1910-1970 when periods of growth were followed by periods of loss. Growth now is continual, at faster and slower rates.

Population numbers are important in determining community needs. The population’s profile also is important. In Newmarket there is an unusual bulge in the early twenties age class. This probably results from the town’s proximity to the University of New Hampshire and the relatively plentiful housing for this age group. This generally is an age group that is active and a major user of recreation facilities, especially athletic fields, although that does not mean that they are a heavy user of Newmarket facilities.

**2.3 Age Distribution**

Age Distribution for Newmarket - 2000

Age range	Population
1-4 and less than 1	515
5-9	470
10-14	524
15-19	397
20-24	971
25-29	746
30-34	724
35-39	722
40-44	750
45-49	598
50-54	462
55-59	278
60-64	198
65-69	163
70-74	192
75-79	112
80-84	118
85+	87

*(Source: US Census Bureau)*

**2.4 Housing Characteristics**

The characteristics of Newmarket’s housing are also somewhat unusual. There are a significantly greater proportion of apartments and condominiums compared to housing in the rest of the state and a corresponding lower proportion of single-family detached housing.

In the year 2000, there were a total of 3457 housing units in Newmarket:

- 1416 Single family detached [41% Newmarket vs. 62% State]
- 1845 Apartments and condominiums [53% Newmarket vs. 31% State]
- 196 Mobile homes [ 5.6% Newmarket vs. 6.4% State]

1516 housing units were built between 1970 and 1989, which is the majority of existing units.

Of the total housing units, 3379 were occupied units.

A great majority of the occupiers in the year 2000 (2050 occupiers) moved into their units during the period 1995 to 2000. Only 456 occupiers moved in between 1990 and 1994. In Newmarket this represents 61% of

the occupiers. State statistics indicate that 47% of the total occupied units were moved into during this same period.

Together the population and housing data demonstrate that Newmarket has a well-established pattern of growth and that much of that growth is in younger age groups for whom active recreation is particularly important. There also are trends in recreation activities that are significant for identifying recreation needs for the long term. These trends and preferences can be identified at the national, state and local level.

## **Section III: Recreation Standards**

### **3.1 Introduction**

A question that frequently is asked about recreation facility needs is, “What is the standard?” This usually is expressed as a number of facilities per number of residents. For every 10,000 residents you should have one, two, three or some other number of facilities for an activity. The problem with standards expressed in this way is that it ignores the location, history, characteristics and uniqueness of each community. For example, in New Hampshire Concord has long been a community where tennis is popular; Lebanon has provided Nordic skiing, including a public ski jump; Berlin has been a historic center for ice hockey. General standards do not address the particular facility needs for these communities.

Standards also do not keep up with evolving recreation preferences particularly for the young. Lacrosse once was pretty much limited to Maryland, Virginia, Long Island and a few prep schools. Now it is a popular spring sport in high schools throughout the country, and numerous clubs are appearing, as well as a fledgling professional league. This does not even address the instant popularity of youth activities such as skateboarding and snowboarding, which barely existed a few years ago.

Other factors that work against standards is the growth of girls sports and the tendency of girls to take up sports that once were limited to boys. The outstanding example is the growth of girls’ ice hockey.

No national standard can tell a community like Newmarket how many soccer or softball fields it should have. This is a feature of the number of children who want to play, how many adults can be found to coach and referee, how many practices and games each team gets and how long the season lasts. Over time as more children grow out of youth and school leagues the demand for adult activities also is likely to grow, and in view of the national crises of obesity and diabetes, it should be accommodated and encouraged.

### **3.2 Demand and Supply**

A more useful short-term measure of recreation supply and facility need can be measured by the actual public use received by recreation facilities and an assessment of whether the supply is adequate for this intensity of use. The existing resources are not adequate for the demand that has developed for recreation:

- Youth programs for soccer and basketball have grown in the past ten years from 200 to over three hundred children.
- The recreation basketball program for grades 3-8 constituting 6-8 teams has only one day’s use of the gym – Saturday for practice and games.
- Recreation soccer and baseball also have limited field time. The 4-5 teams in the rookie league have only 8-10 hours of field time for practice and games.
- Despite the growth in activities the last new field was built in 1974 and the gym was built in 1987.

Below are several tables that define the actual use of athletic facilities in Newmarket.

Facilities	Location	Program	Participation
<b>Baseball</b>			
1 Full Baseball	Landroche	High School	2 Teams
1 Little League	Beaulieu	Jr. High School	2 Teams
1 Minor League	Howcroft	Jr. Babe Ruth	5 Teams
		Sr. Babe Ruth	2 Teams
		Little League	8 Teams
		Minor League	8 Teams
		Rookie	6 Teams
		Homerun USA – 4 <sup>th</sup> Week April /	Children / Ages 6-12
<b>Softball</b>			
1 Full	Landroche	High School	2 Teams
1 Full (Girls U-16)	Howcroft	Jr. High School	2 Teams
		Girls – Fast Pitch	5 Teams
		Men U-35	12 Teams
		Men O-35	8 Teams
<b>T-ball</b>			
1 Field	Community Housing Area	T-ball	4 Teams
<b>Football</b>			
No designated fields	Landroche soccer fields	Flag Football	12 Teams
		Pre-school Flag Football	30+/- Children

Notes:  
 Baseball/Softball Fields at Landroche and Softball Field at Howcroft cannot be used simultaneously with Soccer fields at those sites  
 No Local Women's Softball

Facilities	Location	Program	Participation
<b>Soccer</b>			
1 Full Field	Landroche	High School	4 Teams
3 Short Fields	1-Landroche	Jr. High School	2 Teams
	2-Howcroft	Recreation League	10 Teams
		Recreation Travel	8 Teams
		Laotian League	4 Teams
		Pre-school	60+/- Children
		“Play Soccer” Program	60+/- Children
		Seacoast United - 3rd Week July /	Children / Ages 6-12
		Nellie Soccer – 3 <sup>rd</sup> week August /	Children / Ages 6-12
<b>Basketball</b>			
1 Full Indoor Court	1-High School Gym	High School	4 Teams
1 Youth Indoor Court (8' baskets)	1-Elementary School Gym	Jr. High School	2 Teams
		Grades 1-3	8 Teams
2 Full Outdoor Courts	1-Community Center - composition	Grades 4-8	10 Teams
	1-High School -asphalt	Men U-35	8 Teams
		Men O-35	Pickup Teams
<b>Volleyball</b>			
1 Regulation Sand Court	Community Center	Laotian League	4 Teams
			Other informal Use

Notes:  
 Soccer Fields at Landroche and Howcroft Fields cannot be used simultaneously with Baseball/Softball fields at those sites  
 No adult Soccer except Laotian League

Facilities	Location	Program	Participation
<b>Jump Rope</b>		<b>Jump Rope</b>	
	Elementary School Gym	Jump Rope / Extreme Air	250 children
<b>Walking Trails</b>	TNC Lubberland Creek - Jeffs Hill - 2 +/- Miles	Views of Great Bay	Unknown
	Heron Point - ½ mile	Boardwalk / Views of Newmarket	Unknown
	Folletts Brook - ½ mile	Views of Folletts Brook	Unknown
	Piscassic Street Park	Riverside Walk / Picnic Tables	Unknown
<b>Snowmobile Trails</b>			
<b>Boat Launches</b>			
Small Trailer Boats	Piscassic Park	Paved Launch w/limited parking	Unknown
Small Trailer Boats	Waterfront Park	Paved Launch w/limited parking	Unknown
<b>Playgrounds</b>		<b>Playground Use</b>	
Swings-Slides-etc.	Landroche	Informal Use	Unknown
	Beaulieu	Informal Use	Unknown
	Elementary School	Recess	Elementary School Students
<b>Picnic Facilities</b>			
12 tables & 6 barbeque pits	Landroche	Suitable for families or groups	Unknown
5 tables	Beaulieu	Family use	Unknown
3 tables	Piscassic Park	Family use	Unknown
2 tables	Waterfront Park		

Facilities	Location	Program	Participation
<b>General Field Use</b>			
Main Fields	Landroche	Archery	
		Pre-school Sports	60+/- children
		Summer Day-camp	250 children
		Old Home Weekend	4,000 people
		Newmarket Graduation	High School Grads et al
		Camp-over	250 children
		"Drive-in"	
		Easter Egg Hunt	
		Rodeo	
		Flashlight Tag	
		Spooky Sleep-over	
		Etc.	

These charts represent the supply of recreation facilities in Newmarket, relative to the demand that is generated by existing teams and programs. A summary of this need is represented in the table below.

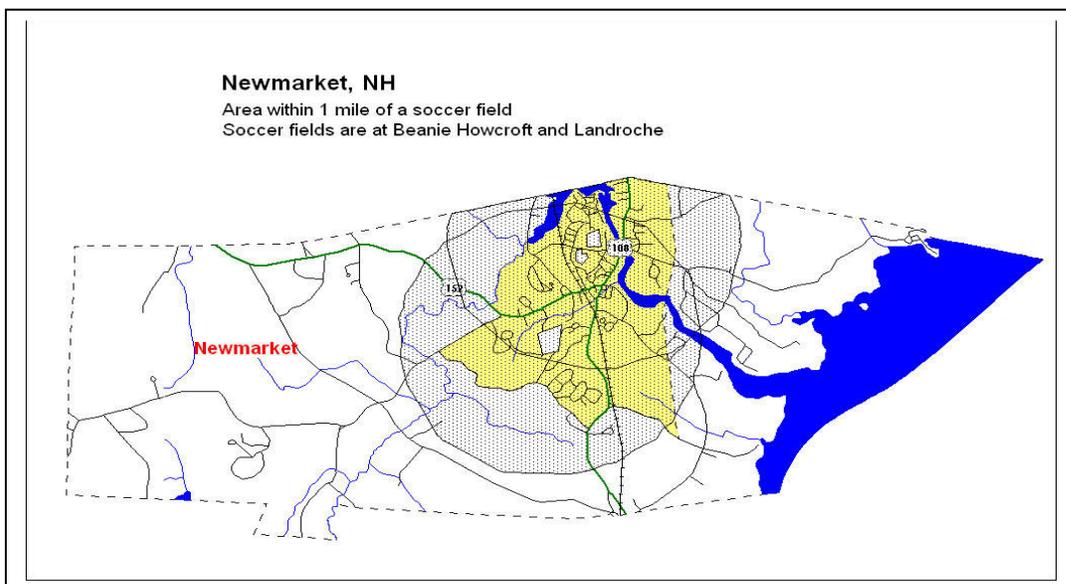
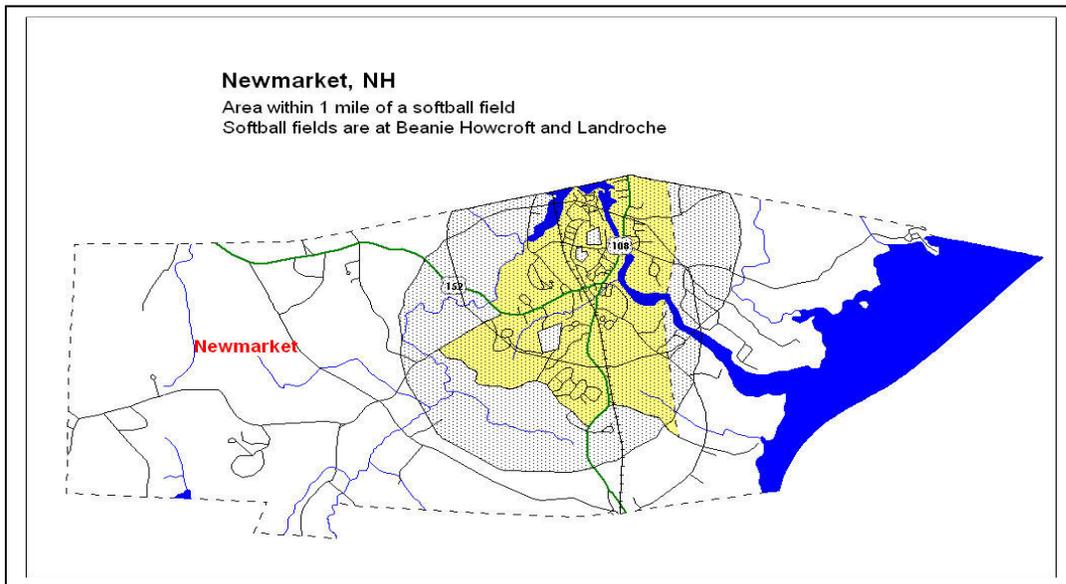
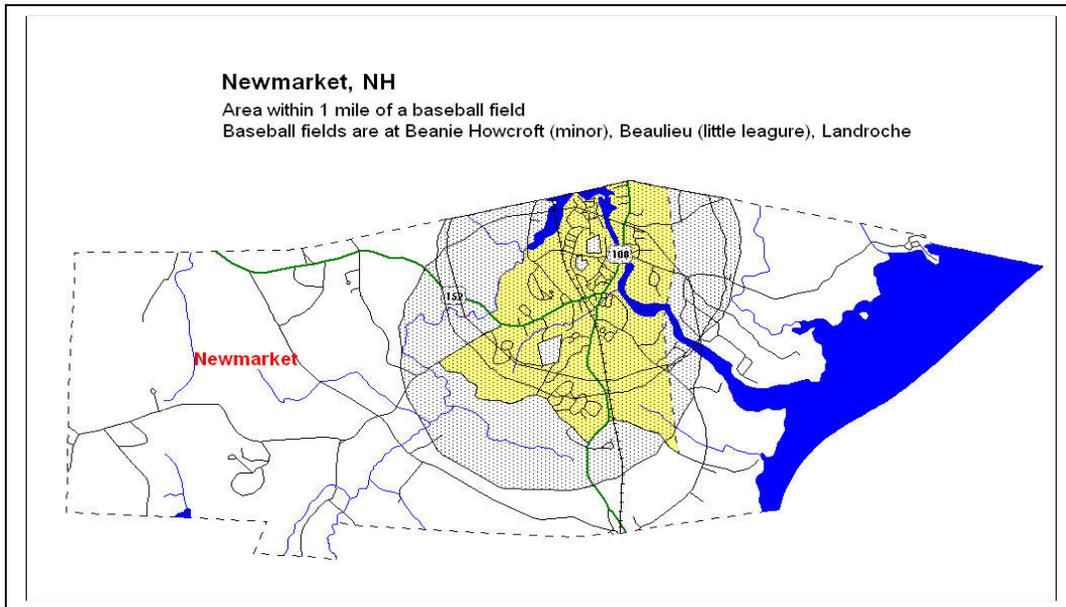
Activity	# of Facilities	# of Teams	Teams/Facility	Features
Baseball	3 Fields	33	11	1 full/1 LL/1 minor
Softball	2 Fields	29	14.5	1 full/1girls
Football	1 Field	12+	12+	Use Soccer field
Soccer	4 Fields	28	7	1 full/ 3 short
Basketball	2 Indoor	20+/-	10	1 full/ 1 short + (2 outdoor)

Additional facilities needed are:

- Baseball : 1 full sized and 1 rookie field
- Softball : 2 full sized fields
- Football : 2 multi-use fields (additional soccer, lacrosse, etc.)
- Soccer : 2 full sized fields
- Basketball : 2 full sized courts (1 indoor, 1 outdoor)

This chart describes the volume of use that each existing recreation facility receives. What it does not illustrate is that baseball, softball, football and soccer all use the same fields. Therefore there is no off-season when turf can re-grow or when fields can be used informally. In fact, baseball and softball start using the fields as soon as possible in the spring and football and soccer use them late in the autumn. This is particularly stressful on these fields and limits the development of strong, hardy turf. Finally, all these facilities, particularly Landroche Field, receive additional use from other activities and programs, for example, 355 children and 44 staff use the field throughout the summer for summer camp.

The usefulness of a facility also depends on its accessibility to those who would use it. Generally, an athletic field is considered accessible if it is within 1 mile of its users. The following Newmarket maps illustrate the accessibility of baseball, softball and soccer fields to town residents.



## **Section IV: Expressed Demand for Recreation**

People vote with their feet, literally, when it comes to recreation activities. If they value an activity – they participate in it. If it is not offered or if there is inadequate supply, however, it is more difficult to measure whether it is needed or whether there is adequate opportunity for participation.

### **4.1 Newmarket Recreation Survey**

In order to further address this information need, a survey of Newmarket residents was undertaken. The main purpose of the survey was to question residents about their views on recreation programs in Newmarket and preferences for adjustments in recreation services. The questionnaires were mailed to a random selection of residents and the results were tallied to develop a summary of town-wide views.

A summary of these results shows that respondents who expressed preferences for recreation development identified the following as their number one preference most frequently:

1. Indoor Pool
2. Cross-country ski trails
3. Ice Arena
4. Outdoor Pool
5. Snow Sliding Hill

Based on the total number of times that a project was selected, whatever its rank, the following were the most frequently selected:

1. Indoor Pool
2. Gymnasium
3. Sports Field Complex
4. Outdoor Pool
5. Cross-country ski trails

A separate section of this questionnaire sought responses to open space and trails questions. A summary of these results shows that respondents who expressed preferences for open space activities identified the following as their number one preference most frequently:

1. Natural Trail Areas
2. Bicycle Shoulders
3. Unpaved Trails

Based on the total number of times that an open space project was selected, whatever its rank, the following were the most frequently selected:

1. Natural Trail Areas
2. Unpaved Trails
3. Bicycle Shoulders

In addition to addressing a range of potential recreational development opportunities respondents provided feedback on the condition and management of existing recreation and open space facilities. The following issues and suggestions were among the most commonly cited.

Beanie Howcroft Field:

- Increase parking
- Improve drainage and repair poor turf condition
- Build restrooms

Beaulieu Field

- Increase and improve parking
- Landscape and seed behind baseball field
- Improve toilet facilities

Leo Landroche Field

- Improve drainage and turf conditions
- Provide restroom facilities
- Increase parking
- Improve lighting
- Minimize overlap of fields on each other

Community Center

- Increase parking
- Build indoor swimming pool
- Add indoor gym to relieve overcrowding and offer more practice/play time

Piscassic Street Park

- Needs a small dock for fishing
- Should leave natural
- Put in picnic tables

Waterfront Park

- Needs to be cleaned/spruced up
- Add a walking path
- Add more grass and plantings

Heron Point

- Needs to be publicized and needs a map
- Improve access, improve paths

## **4.2 Recommendations from Volunteers and Coaches**

An important source of guidance on recreation demand and needs are the views of those who are most closely involved with providing recreation services – the coaches and volunteers who commit many hours to helping provide recreation opportunities to the Town’s residents. This table summarizes the issues and views expressed in a meeting held on May 10, 2004 with these volunteers:

Basketball	High Priority – need more facilities	Take a look at the Candia, NH facility. This works very well and would be a good model for Newmarket. The facility includes full size basketball court and a grass area for practice – lacrosse, baseball, soccer.
Baseball	High Priority	More fields are needed: 1 added LL field and 1 added baseball field (90’ baseline). For flexible play, a grass infield (rather than skinned infield) is preferred.
Softball		One or more additional softball fields in Newmarket would accommodate local use/demand.
Large Sports Complex		A complex would fulfill demand nicely. A cluster of outdoor fields improves efficiency and maintenance
Track		A track could accommodate (capture) the recreation needs of many residents having a variety of physical abilities. An indoor overhead track was suggested as a possible solution where a gymnasium can accommodate this feature.
Walks		Senior citizens enjoy walking for exercise. A pattern of sidewalks and paths could be identified and improved in the Newmarket area for senior use.
Soccer	High Priority	Additional fields are needed for play, practice and an annual schedule of turf rejuvenation. Needed: 1 full size, 2 short fields. The added fields will provide an opportunity to schedule with less play surface deterioration.
Playgrounds	Consider added play space opportunities	In Augusta, Maine facilities are distributed in each major neighborhood and within walking distance from housing concentrations. Access by the physically challenged should be provided in any new or improved playgrounds.
Informal basketball facilities		Consider building informal pavements and backstops for informal “shooting hoops” within neighborhood proximity.
Hockey		An outdoor rink could be constructed for flooding and freezing during winter months.
Outdoor pool	High Priority	Although this is a high priority, the construction cost aspect has been delaying progress with this needed facility. If constructed, a pool facility would accommodate all abilities and would offer a community gathering park/location.

Ropes Course		Mentioned as a sport/facility that is popular in other communities and could be offered in Newmarket.
Biking		The Arlington, MA Rails to Trails Bikeway was mentioned as a model for community bike accommodation. Currently bike routes do not exist and biking requires careful maneuvering with vehicular traffic. A study should be conducted to identify potential bike routes for recreation. Eventually safe paths and crossings would be planned and constructed for use by all ages.
General purpose fields	Medium Priority	Needed for "Pick-up Games". Just grassy lawn fields would provide opportunities for many different outdoor activities.
Winter Sports		More opportunity for activities in the winter would be welcomed. X-C ski trails on the properties surrounding Great Bay and at the newly acquired Grapevine Hill acreage were suggested as ski locations.
Tennis Courts		Tennis is offered in nearby Durham, NH and at the membership Athletic Club in south Newmarket. Tennis is a popular senior activity. There are no public tennis courts in Newmarket. Public tennis facilities should be considered.
Boating		There is boat access to the Lamprey and Piscassic Rivers, however, no organized boating program is conducted in Newmarket. There may be a possible interest in this activity.
Golf		A commercial course exists in south central Newmarket. Possibly more golf-associated recreation could be explored.
Weight Room		This activity is becoming popular as a complementary exercise to walking or jogging. If this facility was offered, it is expected that it would be a popular venue to all ages.

#### Additional Coaches/Volunteers Comments:

- Practice fields are needed. Currently, the existing fields are used for both games and practice. The very heavy usage causes extreme wear on the turf. The quality of the playing surfaces deteriorates rapidly during the playing seasons.
- Provisions for non-competitive play recreation facilities are needed.
- As facilities are improved and added in Newmarket, it is important to consider the maintenance factor. Staff time, equipment and supplies add cost to the recreation budget.
- A map of Newmarket recreation facilities would be helpful to many residents. The questionnaire phase found that some respondents did not know where recreation was offered.

## **Section V: Specific Recreation Recommendations**

### **5.1 Summary of Recommendations**

This recreation master plan addresses the recreation service needs for the Town of Newmarket over the next ten years. The recommendations are based on an assessment of the current activities and programs, existing infrastructure and expressed desires and preferences of town residents. It also seeks to balance the great benefits that a well developed and supported public recreation program gives to a town and the costs that building and sustaining that program entail.

The first priority in this plan is given to building up the infrastructure needed to adequately support existing programs. There is a particular need for athletic fields and indoor recreation space for existing sports programs, especially for children. Recommended new construction is also designed to provide broad benefits for multiple uses and activities, in addition to meeting the primary needs.

The second priority is given to providing recreation services that are traditionally part of local programs in New Hampshire. Ways to provide these at relatively low cost to the town has been particularly important. These include outdoor swimming and informal winter recreation opportunities.

The third priority is given to informal, family recreation, particularly walking and bicycling, picnicking, and opportunities for informal play in neighborhood parks and local trails.

Two potential recreation enhancements were considered but deferred to a later planning period. These were an indoor pool and an indoor ice rink. Both were considered to be of lower priority than the existing needs noted above and to add excessive cost, both for construction and management.

Finally, the option of an air-supported dome was considered as an adjunct to the recommended recreation improvements. This facility would have the potential to significantly enhance recreation opportunities for both teams and individuals. Such dome facilities are becoming more common. They provide space for off-season activities, particularly for sports such as soccer, softball, baseball and lacrosse. Also, there is an enclosed space for fitness activities such as walking and jogging and time and space can be rented for individual sports such as golf and for any number of group activities. The space also can be used for conventions, commercial shows, concerts etc. Most domes are owned and operated by public entities such as towns and counties, schools and universities. Some however, are owned and operated privately. At this time a dome is not included as a recommendation for this recreation plan. It would be useful, however, to undertake an analysis of such an investment for the latter years of this planning period to determine, in detail, the feasibility of that undertaking.

## 5.2 Site: Leo Landroche Field

### Discussion

This is the principal outdoor recreation facility for the Town of Newmarket. It provides both recreational and junior and high school based sports and recreation. It has the only lighted fields in town and has family play facilities. This is also the location where most community events are hosted and where people of different ages, backgrounds and interests are most likely to congregate.



### Facilities/Services

- 2 Soccer Fields
- 1 Softball Field
- 1 Baseball Field
- 1 T-Ball Field (informal)
- Playground Equipment
- 1 Picnic Pavilion
- Amphitheater
- Horseshoes
- Archery area
- 1 Octagonal storage building – concession stand

### Problems/Issues

- Poor field conditions: A-Field does not drain well especially compacted areas around goals; B-Field slopes and doughy soils
- Although lighting is available, it is expensive because of outdated equipment (c. 1974)
- Intense schedule prevents resting, renovating or rebuilding fields
- Inadequate parking
- Difficult access to back fields

- Inadequate storage
- Inadequate snack bar-refreshments
- Informal trail access from elementary school
- Inadequate bleachers
- No irrigation
- No toilets, water fountains or scoreboard on B Field
- Soccer fields overlap dirt of infields of softball and baseball fields

#### Recommended Actions

- Rebuild and add top-soil to B- Field; crown and regrade A-Field
- Install irrigation for both fields
- Rebuild turf line to reduce dirt portions of infield on baseball field
- Install improved bleachers
- Create access to southwest corner of B-Field and expand to southwest corner of property, with play lawn to base of slope
- Replace scoreboard and lighting with high efficiency system
- Add one larger pavilion or extend existing one to be used for group gatherings, wedding receptions, etc.; design with barbecue, power and water suitable for self-service or catering; landscape for moderate privacy.
- Install target archery range at foot of hill on southeast corner of property
- Replace scoreboard and install scoreboard on B Field
- Install public address system

#### Recommended First Actions

- Establish access and clear area at southeastern side of field
- Rebuild B field and move to south to reduce overlap with B soccer and softball field
- Expand play lawn to base of steep slope
- Construct new access road to west property line







### 5.3 Site: Beanie Howcroft Field

#### Discussion:

Beanie Howcroft Field is the recreation area that is most centered in the neighborhoods of Newmarket. Both children and adults can reach it easily by walking or riding bicycles. It is accessible to the apartment complexes on Piscassic Street. Auto access is poor and parking is not well marked. This field is devoted primarily to softball and soccer for children. Field conditions have droughty soils and poor turf conditions.



#### Facilities/Services

- 2 Short Soccer Fields
- 1 Girls Softball Field (overlaid)
- 1 Little League Field (overlaid)
- Storage Building
- Portable Sanitary Unit

#### Problems/Issues

- Poor access, narrow road from Nichols Avenue
- Insufficient, unmarked parking
- Intense schedule prevents resting and rejuvenating fields
- Lack of defined parking spaces
- Inadequate storage
- Absence of lighting for summer/fall use
- Poor drainage
- Lack of irrigation
- Lack of rest room facilities

#### Recommended Actions

- Acquire property at Nichols Avenue if/when it becomes available to improve access and parking

- Install perimeter and field-base drainage and irrigation, re-loam, grade and seed fields
- Extend playing surface toward parking to reduce extent of overlays between soccer and softball/baseball
- Add accessible walking path inside perimeter of property
- Add playground equipment and picnic tables
- Add bleachers
- Compensate for loss of parking area by extending parking to southern property line and marking to assure more efficient use of limited space
- Add disabled accessible parking spaces.
- Improve infield of baseball diamond
- Extend sewer line from Nichols Avenue to facilitate flush toilets and running water for concessionaire

#### Recommended First Actions

- Modify and expand parking area
- Draft Case Study for fund raising for upgrading field. Identify and detail high priority upgrading projects and establish a funding strategy to implement park improvements.
- Expand storage facility
- Investigate feasibility of extending sewer line from Nichols Avenue





## 5.4 Site: Beaulieu Field

### Discussion

Devoted primarily to Little League, this is the best built/conditioned athletic field in Newmarket. It is well designed, properly oriented and, as a single use field, it is in the best condition. It gets heavy use and scheduling is a problem. Other design features do pose problems, however. For example the parking is inadequate and poorly drained. The overall site is poor with exposed ledge and shallow bedrock. There are relatively few opportunities for additional recreational activities.



### Facilities/Services

- Little League field
- Playground equipment
- Snack bar storage building
- Portable toilets
- Parking area

### Problems/Issues

- Inadequate and poorly drained parking during heavy use periods
- Neighbors concerned about heavy use
- Many trees stressed from compaction.
- Unused opportunities to fully use surrounding field as practice area
- No batting cages
- Use of perimeter of the Little League field for dog walking
- Lack of toilets
- Lack of storage for concession and equipment

### Recommended Actions

- Level, grade and seed upper field for practice area
- Regrade and mark parking

- Install high intensity, shaded, low glare lighting
- Build Basketball court below concession/picnic area
- Install picnic tables
- Develop walking trail around ball field and into edge of woods
- Improve Gate access and post closing time(s).
- Provide disabled accessible parking near concession.
- Add disabled accessible equipment to toilets.
- Provide accessible path from disabled parking to concession, toilet picnic and bleacher areas.
- Acquire access to Beech Street in order to use Senior Center parking for Beaulieu Field events
- Expand concessions/storage building

Recommended First Actions

- Redesign and regrade traffic and parking
- Build basketball court
- Install batting cage
- Expand concession stand for improved storage





## 5.5 Site: Community Center

### Discussion

The Community Center is a remarkable partnership between the Town of Newmarket and the Federal Housing Administration. The ability to share responsibility between the local and federal levels of government has benefited the residents of Newmarket. Clearly, the Community Center has become the social center for the Town. The ease of access for students and its location near the center of town has been a great asset. This facility offers additional opportunities for increased public use. The foresight used in designing and building the structure has prepared it to be modified and expanded when the need and opportunity arrived.



### Facilities/Services

- Game Room and CLIK (computer leaning interactive to kids) room
- Multi-purpose conference room
- 2 pre-school rooms
- Food Service
- Skateboard Park
- Community Garden
- Outdoor Basketball Court
- Office and communications center for community recreation

### Problems/Issues

- Inadequate space for range of community activities
- Inadequate office space
- Inadequate indoor recreation space
- Difficult to segregate activities, ages and undertakings
- Inadequate rest room facilities
- Inadequate parking

- Seniors have no place to spend time

Recommended Actions

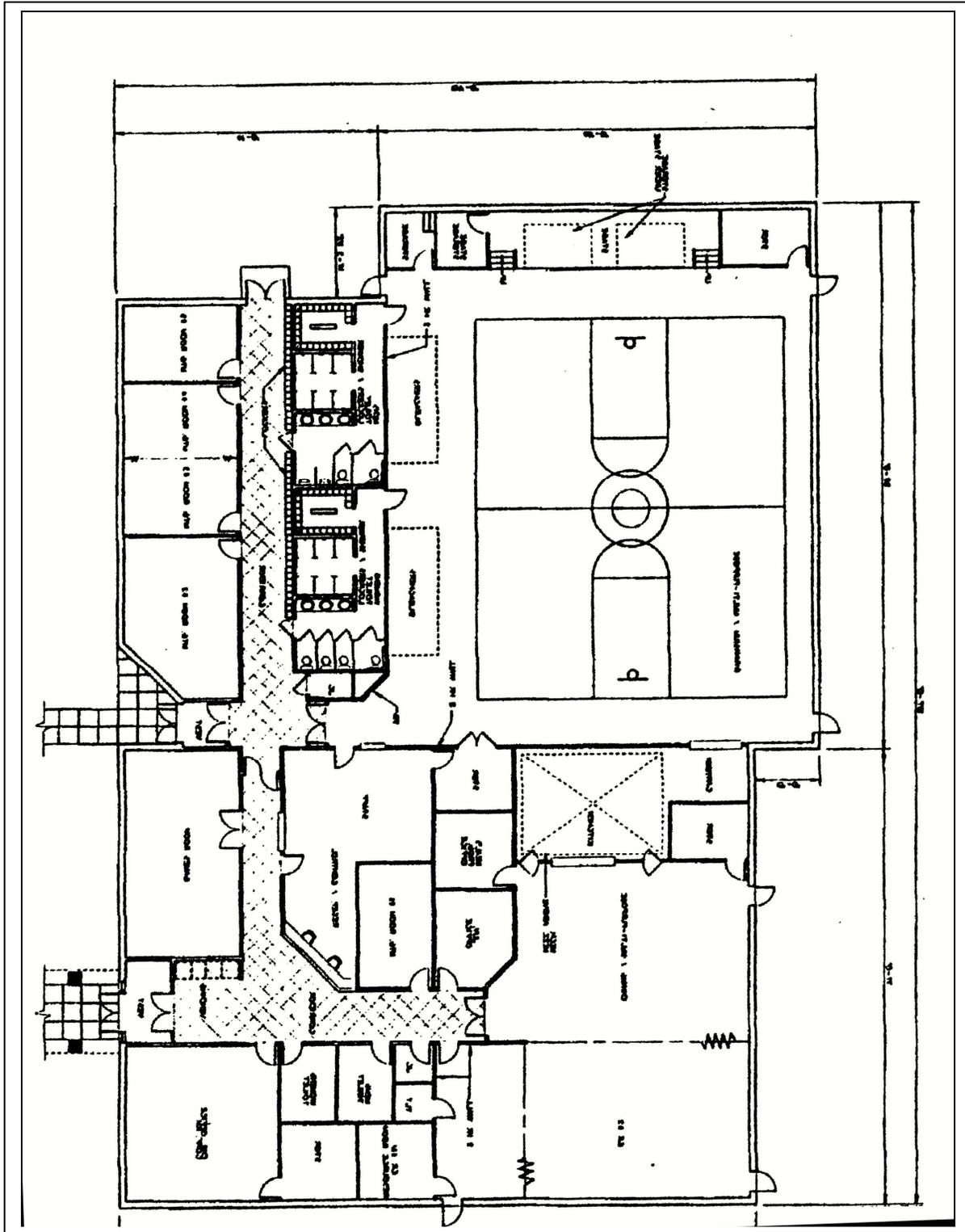
- Design and build a gymnasium-addition to the northeastern corner for indoor basketball, locker rooms and rest rooms, if possible include space for exercise/weight machines and climbing wall
- Design addition to accommodate indoor swimming pool in future
- Expand parking on south side of building
- Add toilets for use by Landroche Field users

Recommended First Actions

- Prepare architectural and landscape designs for expansion
- Seek detailed costs and schedules for expansion
- Prepare case study and identify and pursue potential funding sources



This is a schematic drawing of a gym for that can be added to the existing community center:



## 5.6 Site Piscassic Street Park

### Discussion

Although technically a conservation property, Piscassic Street Park receives extensive recreational use, because of both its location in a dense residential area and its frontage at the junction of the Piscassic River and the Lamprey River. The boat launch provides small boats with access to the Lamprey, above the dam, and to the lower reaches of the Piscassic. The path around the property provides opportunity for informal fishing and swimming and picnicking at the several tables.



### Facilities/Services

- Boat Ramp for small, trailered boats
- Limited parking
- Walking path
- Picnic tables

### Problems/Issues

- Inadequate and poorly marked parking
- Poorly marked and maintained path; random pathways throughout
- Difficult to secure
- Picnic tables poorly located and in poor condition
- Limited shoreline fishing access.

### Recommended Actions

- Continue to maintain boat ramp
- Build multi-use, disabled accessible path
- Build disabled accessible fishing piers
- Anchor vandal resistant picnic tables on site with grills/barbeques

- Design and build increased parking for vehicles with trailers as well as parking for those who come to picnic, fish and walk...
- Move picnic area to right-hand side of proposed parking

Recommended First Actions

- Coordinate anticipated site improvements with Conservation Commission
- Focus on repair and maintenance for ramp
- Develop design for parking



## 5.7 Site: Heron Point

### Discussion

Heron Point is a park that is particularly scenic and pleasant to visit. It is a conservation area and an area for passive recreation. The boardwalks and platforms built for walking and passive recreation combine a forested setting with a vista of the historic waterfront of Newmarket. These constructed walkways represent an excellent partnership between the Town and the private firm Timberland, Inc. The focus of the property is appropriately on the Lamprey River, but the landscape also is well suited for walking and snowshoeing trails.



### Facilities/Services

- Open Space Conservation
- Protection of Scenic Vistas
- Walking and Picnicking
- Boardwalk and viewing platforms
- Fishing
- Parking

### Problems/Issues

- Access and lack of public knowledge about the property
- Trail expansion issues/opportunities
- Lack of interpretive signing
- Poorly designed maintained parking and access

### Recommended Actions

- Design and build local trails system for walking and snowshoeing
- Improve parking, keep it as a gravel lot;
- Establish trail signs with directions and distances high lighting waterfowl and fish – coordinate with NH Fish and Game Department

- Establish system of interpretive signs
- Continue to work to tie-in with River walk Project
- Continue to feature as a cooperative project with Timberland
- Provide for accessibility to upper platform\
- Provide accessible path from parking to upper platform

Recommended First Actions

- Improve knowledge of area among residents
- Design and flag trail expansion
- Develop trail maps and as well as Town-wide map of trails. Provide at Community Center and Town Office

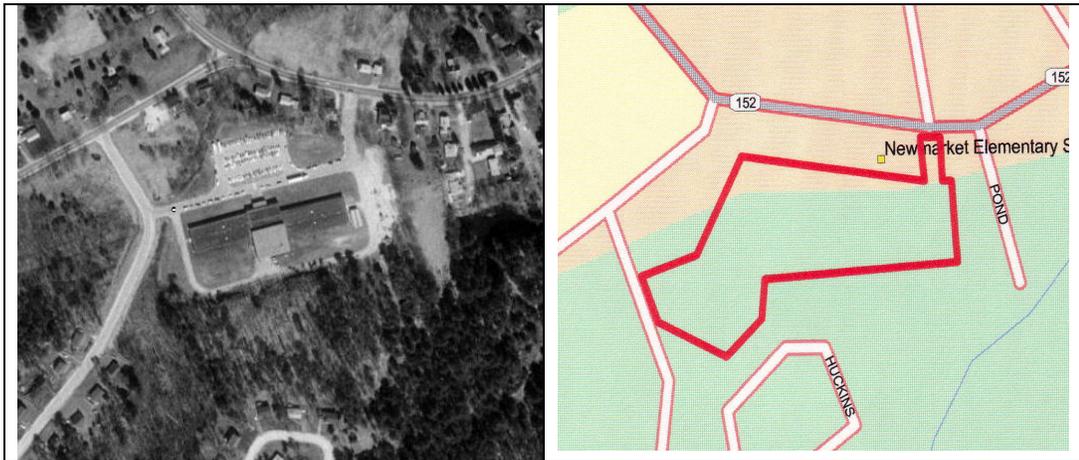




## 5.8 Site: Elementary School

### Discussion

Outdoor recreation and physical education is an important part of growth and development for small children. Increasingly schools are finding themselves responsible for providing these developmental opportunities and the facilities at school are a potential resource for after-school, weekends and vacation activities.



### Facilities/Services

- Small indoor basketball and general recreation area, especially for jump rope
- Informal soccer and t-ball markings and equipment on lawn areas
- Playground equipment

### Problems/Issues

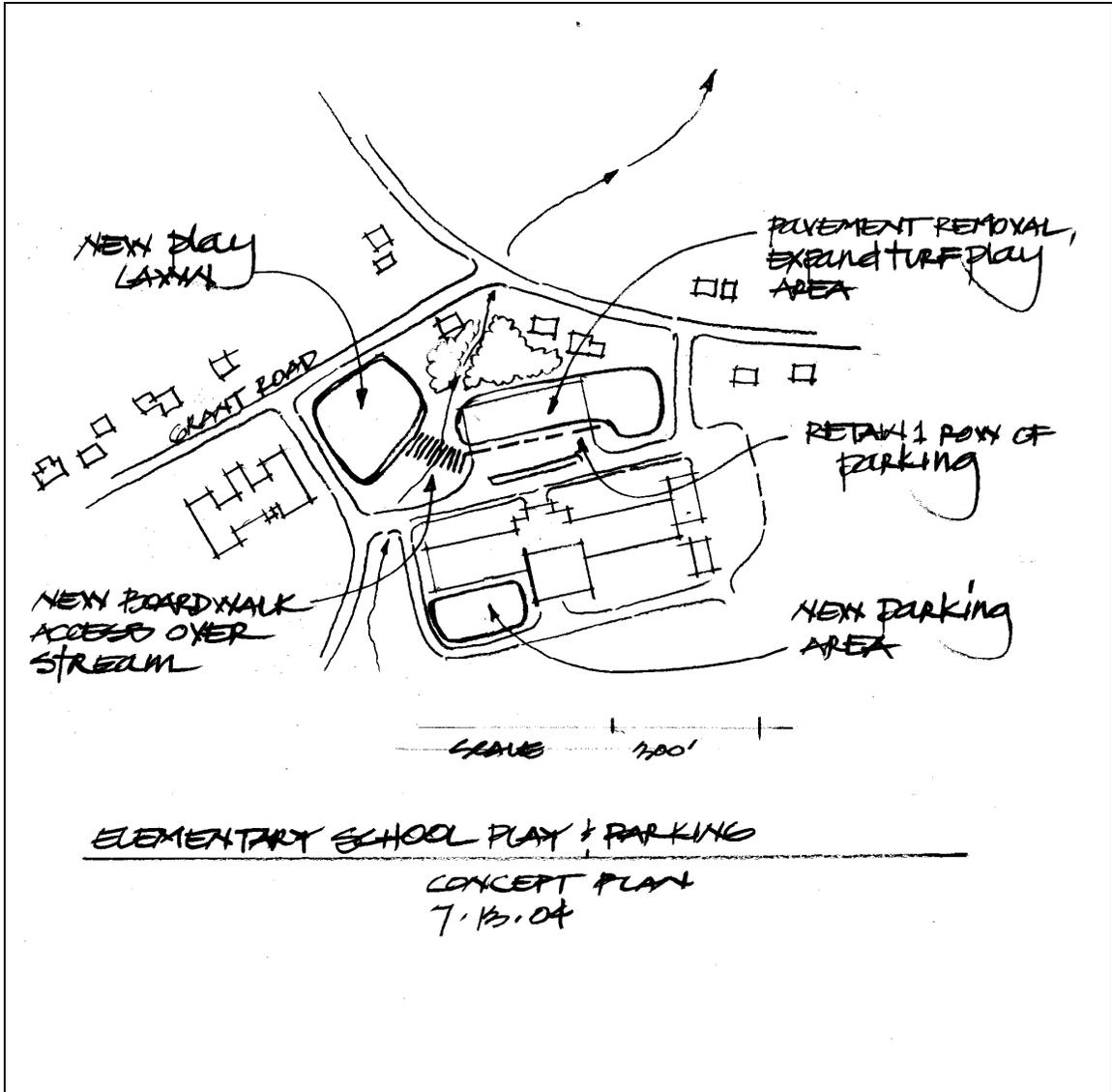
- Inadequate indoor and outdoor space
- Lack of dedicated area for field sports

### Recommended Actions

- Clear area at SE corner of school to establish small athletic field
- Dedicate lot R5-94 (between school, Burrell Drive and Grant Road) to play area
- Consider moving teacher parking to south side of school to create field on north side of school
- Add entrance at rear to provide staff access from relocated parking
- Build disabled accessible pedestrian bridge across drainage wetland

### Recommended First Actions

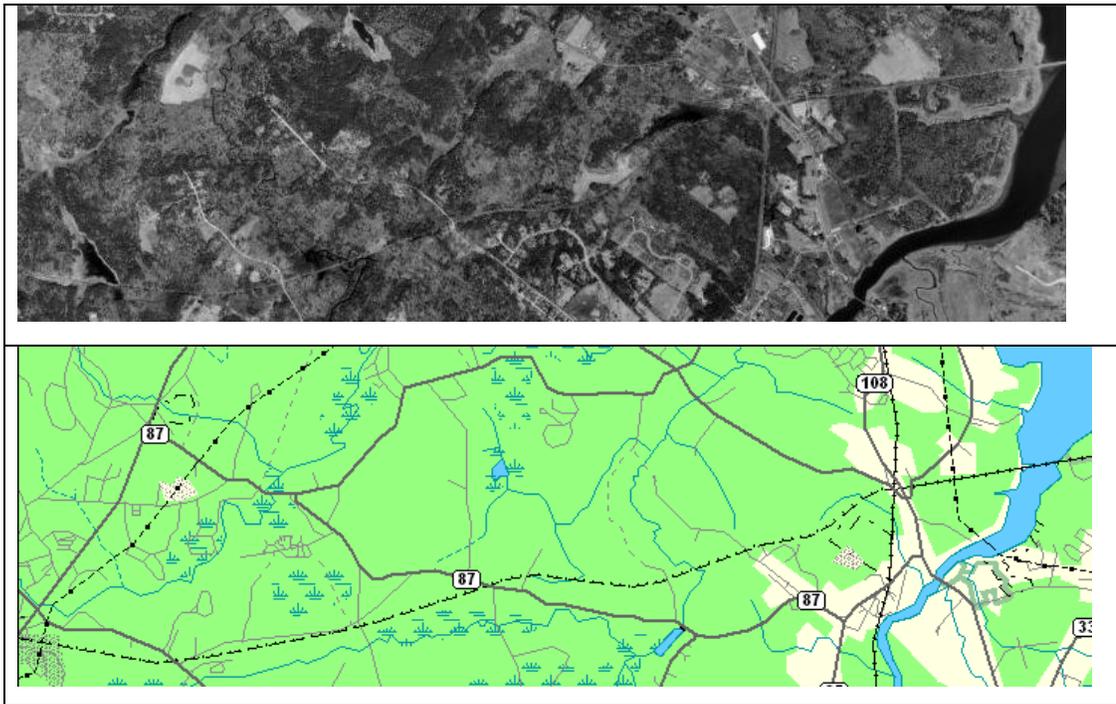
- Develop plan and design for new multi-use field



## 5.9 Site: Manchester – Rockingham Jct. Rail Trail

### Discussion

The Manchester – Rockingham Jct. Rail Trail does not actually pass through Newmarket. However, the southern end of Ash Swamp Road does come to this rail line where it adjoins the active Guilford Line from Portland to Boston. This site also encompasses the old railroad depot, which is in poor condition but is still sound. This access point is used by many Newmarket residents for walking, jogging and exercising dogs. It also is used by bicyclists and snowmobilers. Due to the active use that exists, this recreation corridor is probably the most heavily used trail in the region. Also, several old farm roads connect Ash Swamp Road to the Rail Trail as well as the southern extensions of Neil Mill Road and Bald Hill Road.



### Facilities/Services

- Abandoned rail line under jurisdiction of State of New Hampshire
- Abandoned railroad depot, privately owned
- Class 5 road access from Ash Swamp Road
- Private old farm road access from Ash Swamp Road

### Problems/Issues

- Trail condition is rough - fair for non-snow use
- Signs are limited
- Access points are not developed or managed

- Depot is privately owned and in poor condition

**Recommended Actions**

- Develop access routes from Newmarket to rail trail
- Consider purchasing the railroad depot and rehabilitating it as an all season trails center and historic/interpretive visitor center.
- Seek state and federal funding for trail activities and to improve packed gravel trail surfacing for use by bicycles and to improve the existing signage system.
- Work with Newfields and other towns along the line, to obtain trail funding

**Recommended First Actions**

- Consult with NH Trails Bureau regarding access from Newmarket to rail trail
- Investigate federal funding for trail access, enhancement and use of railroad depot
- Discuss potential purchase of railroad depot with owner



### 5.10 Site: Tuttle Swamp – Grapevine Hill

#### Discussion

The purchase of the adjoining Tuttle Swamp and Grapevine Hill tracts was the largest acquisition of land for conservation open space and passive recreation purposes in Newmarket. Located in the western part of town this land also provides scenic vistas, and water quality protection. Traditionally, the open fields and hilly terrain along Grant Road have been popular locations for winter sliding. The property is also open for hunting. A Master Plan for these properties has been prepared for the Open Space Committee and this plan is the main source for these recommendations.



#### Facilities/Services

- open fields, scenic pond and wetlands
- short access way to top of hill
- old homestead site
- extensive frontage on Grant Road

#### Problems/Issues

- Deed and purchase restrictions limit location and type of activities
- Extensive wetlands also limit options

#### Recommended Actions

- Continue traditional tubing and sliding on hill
- Construct viewing blind as recommended in Management Plan (MP)
- Develop mowed grass trails and forest trails as recommended in MP. Expand these to include trails into mixed upland forest on western portion of property.
- Design parking to assure that snow can be removed efficiently and entirely from lot, preserving full parking capacity.
- Develop small picnic site near parking
- Provide portable toilet facility, particularly during winter sliding season

- Place overlook benches around pond and wetlands
- Program low impact activities for open field (kite flying, model airplane flying, etc.)
- Make available for dog walking, with owners cleaning up after their pets
- Design and establish native wildlife and wildflower plantings
- Develop large scale trail plan to include other town ownerships and The Nature Conservancy ownerships

Recommended First Actions

- Review MP, deeds and other restrictions to determine what activities are permitted and what restrictions apply.

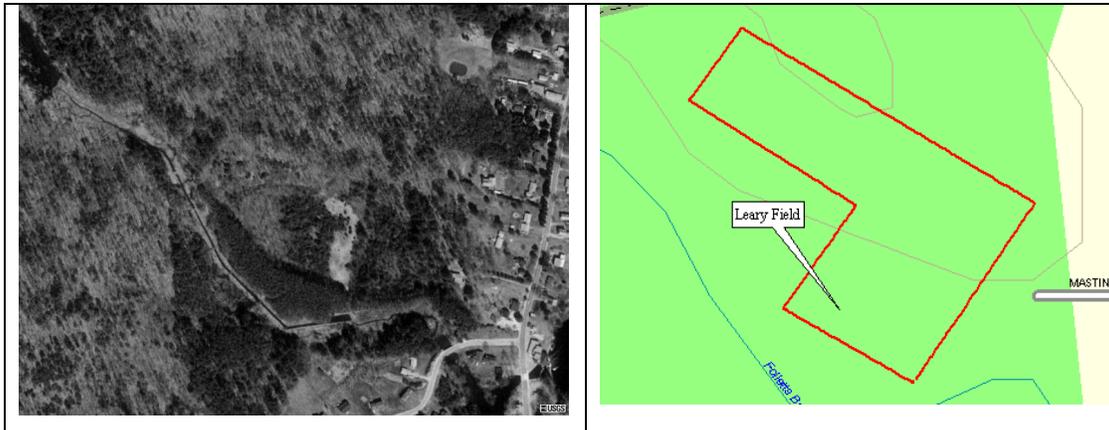




### 5.11 Possible Site: Leary Field

#### Discussion

The most serious recreation related shortcoming in Newmarket is recognized to be a shortage of athletic fields for all activities and all ages. As a practical matter, the geography and terrain of Newmarket do not easily yield many sites that have the topography, soils conditions, and existing use to be well suited for the development of athletic fields, particularly several fields in one location. This site is feasible for developing fields since the Town owned conservation parcel is being combined (through acquisition) with the backland associated with two adjoining lots. The three parcels provide a large area that can be dedicated to recreation. The proposed fields are designed to avoid wetlands on these parcels; the exposed ledge and slopes will be leveled and graded for proper drainage, prior to starting athletic field construction.



#### Proposed Facilities/Services

- Two soccer fields (1 full size, 1 youth)
- One baseball/softball field
- Parking
- Play Area
- Trails
- Snack bar, storage building

#### Problems/Issues

- In its current condition the land at and around Leary Field is rough with exposed ledge and shallow soils
- Existing access to Leary Field is through a prime wetland
- Acquisition of adjoining properties should be a priority
- Alternative access to athletic fields is likely to be needed through a corridor taken from the acquired adjacent lots

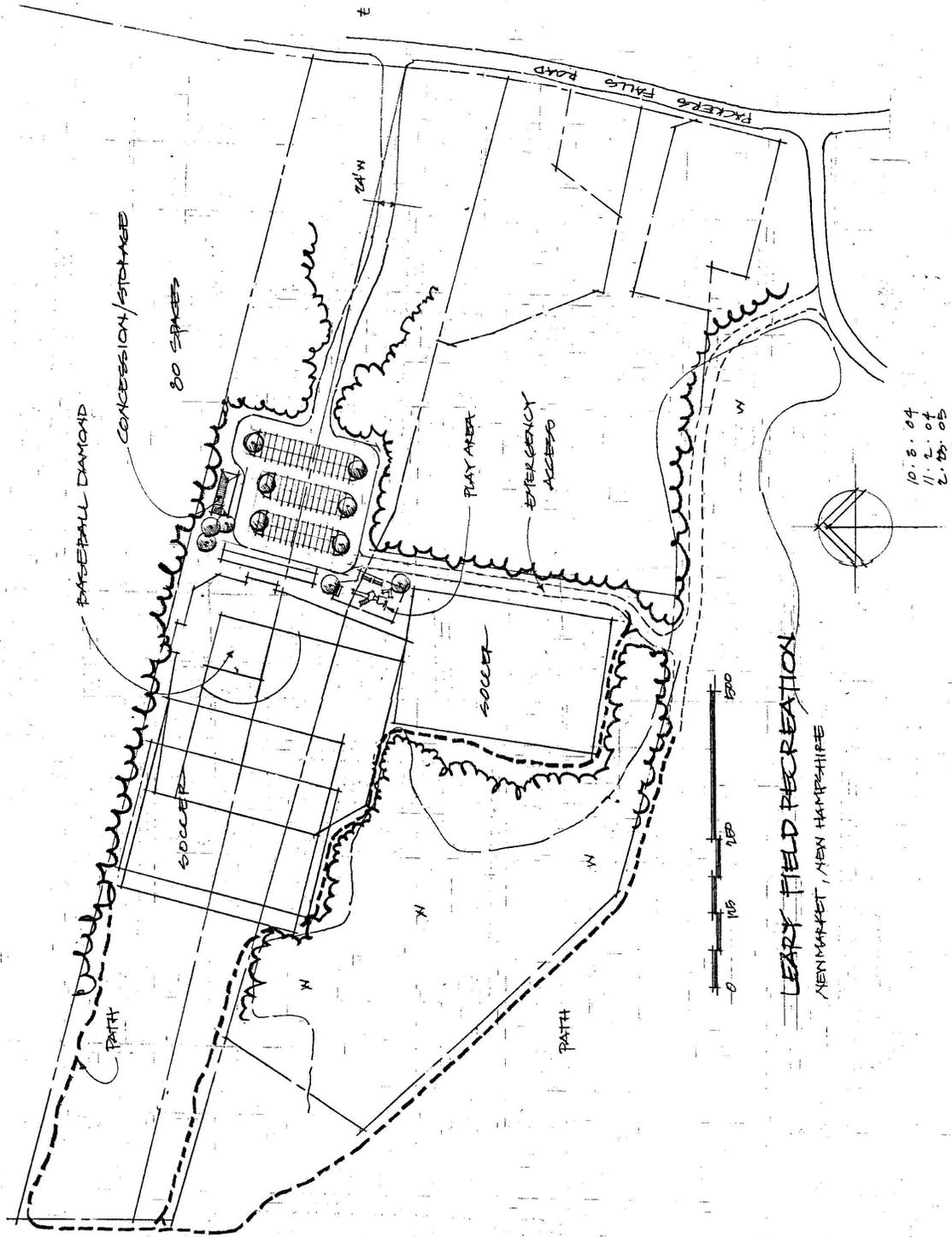
- Construction will include cutting and filling to achieve reasonable grades for field installation

#### Recommended Actions

- Complete transfer of Leary Property and acquisition of adjoining properties.
- Final survey and design to identify the acquisition limits, grading and draining issues, permitting requirements, specific facility layout and sizing
- Identify and obtain needed permits, particularly wetlands permits.
- Undertake leveling activities to create needed level areas
- Layout and construct access road and parking
- Construct planned fields with irrigation, loam, seeding and lighting
- Build snack bar and equipment storage building
- Provide restroom facilities

#### Recommended First Actions

- Site survey, site grading and layout plan
- Supplement Land and Water Conservation Funding with additional funding to build additional fields
- Acquire adjoining lands and subdivide as necessary
- Establish alternative access to Leary field
- Initiate leveling for additional fields



**Estimated Costs w/Bituminous Pavement**

<b>TABLE 1</b>	
<b>COST ESTIMATE FOR LEARY FIELD COMPLEX PROJECT</b>	
<b>ITEM</b>	<b>ESTIMATED COST</b>
1. Field Surfacing: 492,000 s.f. (includes additional non-field grass areas)	\$ 255,000
2. Pavement Surfacing: 134,000 s.f. (includes pavement and base)	\$ 261,875
3. Mobilization	\$ 50,000
4. Chain Link Fence	\$ 25,500
5. Irrigation System	\$ 105,000
6. Landscaping	\$ 10,000
7. Excavation/Embankment in Place	\$ 50,750
8. Playground Equipment	\$ 20,000
9. Water Well Installation	\$ 10,000
<b>SUBTOTAL COST ESTIMATE</b>	<b>\$ 788,125</b>
<b>CONSTRUCTION CONTINGENCY AT 25%</b>	<b>\$ 197,031</b>
<b>ENGINEERING DESIGN AT 20%</b>	<b>\$ 157,625</b>
<b>TOTAL PRELIMINARY COST ESTIMATE</b>	<b>\$ 1,142,781</b>

**Estimated Costs w/Gravel**

<b>TABLE 1</b>	
<b>COST ESTIMATE FOR LEARY FIELD COMPLEX PROJECT</b>	
<b>ITEM</b>	<b>ESTIMATED COST</b>
1. Field Surfacing: 492,000 s.f. (includes additional non-field grass areas)	\$ 255,000
2. Gravel Surfacing: 90,000 s.f.	\$ 100,000
3. Pavement Surfacing: 44,000 s.f. (includes pavement and base)	\$ 65,375
4. Mobilization	\$ 50,000
5. Chain Link Fence	\$ 25,500
6. Irrigation System	\$ 105,000
7. Landscaping	\$ 10,000
8. Excavation/Embankment in Place	\$ 50,750
9. Playground Equipment	\$ 20,000
10. Water Well Installation	\$ 10,000
<b>SUBTOTAL COST ESTIMATE</b>	<b>\$ 691,625</b>
<b>CONSTRUCTION CONTINGENCY AT 25%</b>	<b>\$ 172,906</b>
<b>ENGINEERING DESIGN AT 20%</b>	<b>\$ 138,325</b>
<b>TOTAL PRELIMINARY COST ESTIMATE</b>	<b>\$ 1,002,856</b>



## 5.12 Possible Site: Conceptual – Second Athletic Field Complex

### Discussion

A second athletic field complex recommended for development as part of this recreation plan. This example uses typical conditions in Newmarket to illustrate needs and conditions here. The property has good sight lines. Together, Leary Field and this site are envisioned to provide the athletic fields and other facilities that are projected to be needed for sports programs in Newmarket over the next ten years.

### Proposed Facilities/Services

- One soccer field
- One baseball field
- One softball field
- Two outdoor basketball courts
- One dome and/or outdoor 1/8 mile track
- Storage/storage building and toilets

### Problems/Issues

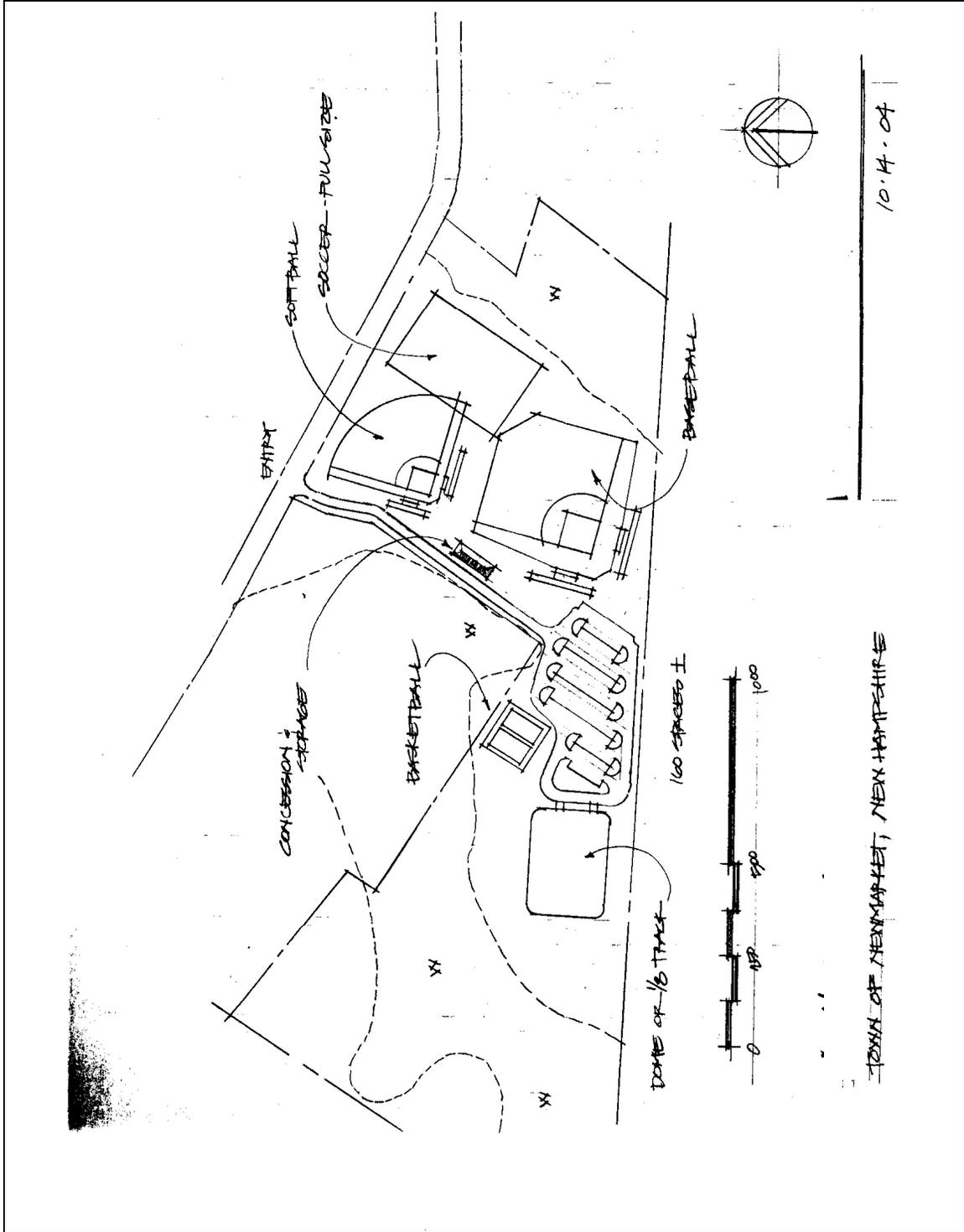
- Actual negotiation with a landowner for such a site is not now under way but additional athletic fields are needed
- In Newmarket a property is likely to need grading to make it suitable for the development proposed
- Wetland also are likely to be an issue with new property, although the development should be, is sited to avoid wetland impacts

### Recommended Actions

- Acquire a property that has the size and conditions for development of athletic facilities
- Prepare final grading and layout plans
- Level and otherwise prepare land for athletic field construction
- Obtain necessary permits
- Complete terrain survey and layout planned fields
- Layout and construct access road and parking
- Construct planned fields with irrigation, loam, seeding and lighting
- Build snackbar and equipment storage building including bathrooms
- Provide light for night use.

### Recommended First Actions

- Undertake negotiations to acquire a property for recreation development
- Develop detailed plan with survey for athletic field development
- Prepare detailed budget and schedule priorities and activities
- Identify funding opportunities and initiate fund raising



## Estimated Costs w/Bituminous Pavement

<b>TABLE 2</b>	
<b>COST ESTIMATE FOR ATHLETIC COMPLEX PROJECT</b>	
<b>ITEM</b>	<b>ESTIMATED COST</b>
1. Field Surfacing: 685,000 s.f. (includes additional non-field grass areas)	\$ 300,000
2. Pavement Surfacing: 180,950 s.f. (includes pavement and base)	\$ 360,750
3. Mobilization	\$ 50,000
4. Backstop, dugouts, and bleachers	\$ 50,000
5. Irrigation System	\$ 50,000
6. Site Lighting	\$ 50,000
7. Landscaping	\$ 20,000
8. Excavation/Embankment in Place	\$ 155,700
9. Dome Structure (includes indoor surfacing)	\$ 250,000
<b>SUBTOTAL COST ESTIMATE</b>	<b>\$ 1,286,450</b>
<b>CONSTRUCTION CONTINGENCY AT 25%</b>	<b>\$ 321,600</b>
<b>ENGINEERING DESIGN AT 20%</b>	<b>\$ 321,610</b>
<b>TOTAL PRELIMINARY COST ESTIMATE</b>	<b>\$ 1,929,660</b>

*Note: The cost estimates provided are for site construction only.*

## Estimated Costs w/o Bituminous Pavement

<b>TABLE 2</b>	
<b>COST ESTIMATE FOR ATHLETIC COMPLEX PROJECT</b>	
<b>ITEM</b>	<b>ESTIMATED COST</b>
1. Field Surfacing: 685,000 s.f. (includes additional non-field grass areas)	\$ 300,000
2. Gravel Surfacing: 143,900 s.f.	\$ 160,000
3. Pavement Surfacing: 37,050 s.f. (includes pavement and base)	\$ 51,800
4. Mobilization	\$ 50,000
5. Backstop, dugouts, and bleachers	\$ 50,000
6. Irrigation System	\$ 50,000
7. Site Lighting	\$ 50,000
8. Landscaping	\$ 20,000
9. Excavation/Embankment in Place	\$ 155,700
10. Dome Structure (includes indoor surfacing)	\$ 250,000
11. Concession/Storage Building	\$ 75,000
<b>SUBTOTAL COST ESTIMATE</b>	<b>\$ 1,212,500</b>
<b>CONSTRUCTION CONTINGENCY AT 25%</b>	<b>\$ 303,100</b>
<b>ENGINEERING DESIGN AT 20%</b>	<b>\$ 303,120</b>
<b>TOTAL PRELIMINARY COST ESTIMATE</b>	<b>\$ 1,818,720</b>

*Note: The cost estimates provided are for site construction only.*

### 5.13 Site: Riverside Beach

#### Discussion

There are no community swimming facilities for the residents of Newmarket. Most New Hampshire towns have beaches on one of their local ponds. The idiosyncrasies of geography, however, have left Newmarket without any natural ponds. The shoreline of Great Bay is unsuited for swimming and the Town recently voted not to build an outdoor pool. A field survey of the town found only one location where a traditional community beach can be located. This is the undeveloped area on the Piscassic River between the Riverside Cemetery and the Boston and Maine (Guilford) Railroad line.



#### Proposed Facilities/Services

- Sand beach with swimming and wading area
- Grassed area for sunbathing and games
- Gravel access road and parking *up tight against RR line*
- Playground equipment
- Picnic tables and grills

#### /Issues

The Riverside Cemetery is reaching capacity. A detailed plan for long-term cemetery space needs and the accommodation of an adjacent swimming facility is suggested to insure a compatible blending of the two land uses..

Access can be done without disturbing potential expansion area of cemetery.

- Swimming will be available only during summer
- Trees along the embankment may need thinning/pruning to allow sun to the beach

#### Recommended Actions

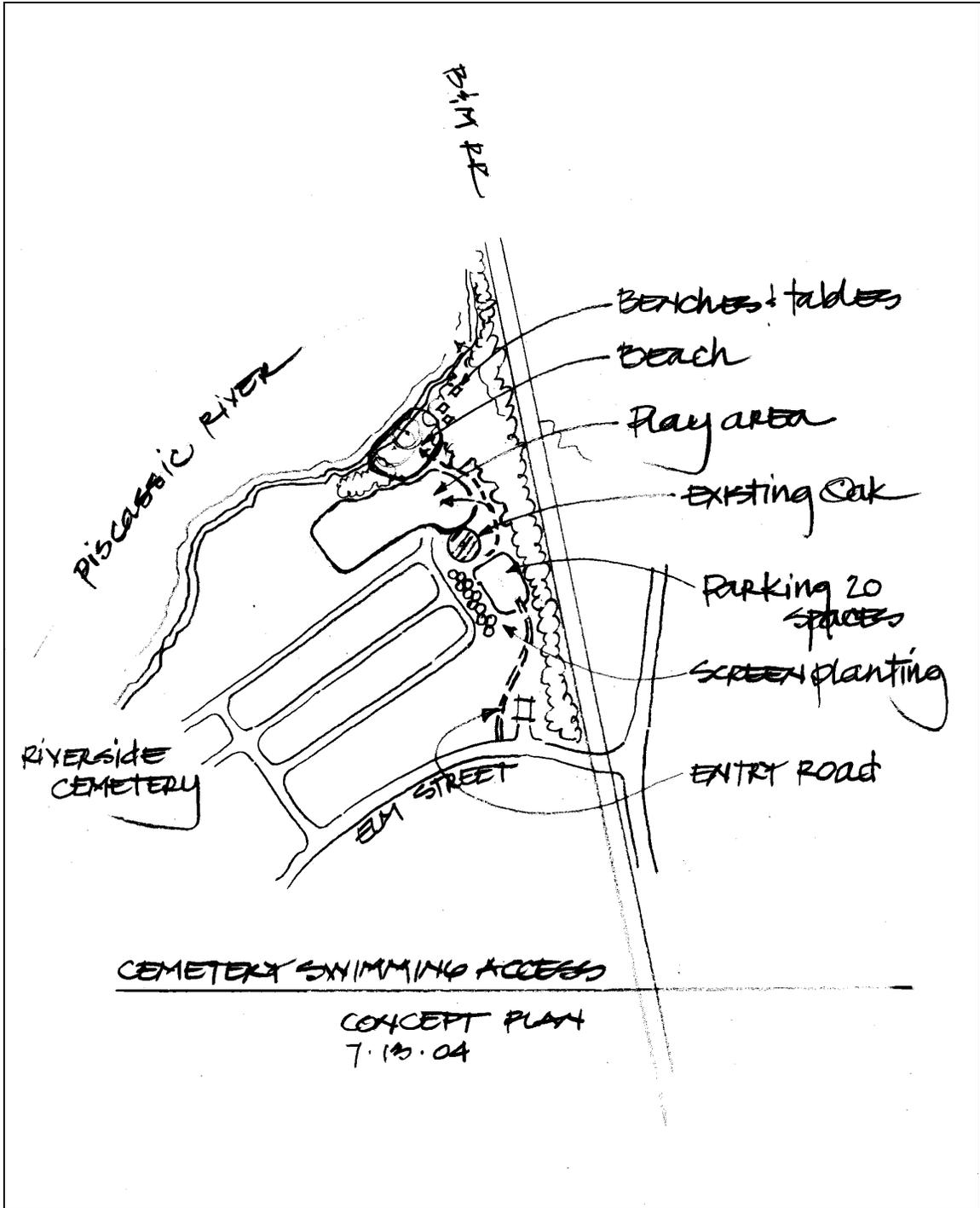
- Seek a consensus in the town regarding the appropriate use of this property (Preliminary long term plans would assist with decisions.)

- Thin riverside trees and stabilize selected trees
- Create sand beach and stabilize an access path down the sandy slope to the beach
- Build gravel access road and parking
- Loam and seed lawn
- Place picnic tables, grills and playground equipment

Recommended First Actions

- Develop consensus for swimming facility at this site
- Build access and parking
- Undertake tree enhancement
- Build beach







### 5.14 Site: Ice Skating Center

#### Discussion

Ice-skating is an ideal family activity and well suited for all ages. The cost of artificial ice rinks is high and the region has several such facilities. There is nowhere in Newmarket however, where a family can go out for a couple of hours on a winter afternoon. The same absence of ponds that makes finding a swimming area problematic also applies to ice-skating. There is a small artificial pond on Langs Lane (Lot R-6-50) that is well suited for ice-skating. This is the same pond used for the fishing derby, but at the opposite end of the pond, sponsored by the Conservation Commission. The water's stillness and shaded location encourage good freezing conditions. It is located near the geographical center of town. Adjacent to the pond there is open land where parking and a warming hut can be established. The Rockingham Land Trust holds a conservation easement on this property that may limit the property's uses.



#### Proposed Facilities/Services

- Natural ice sheet that is cleared of snow
- Parking
- Warming hut

#### Problems/Issues

- Conservation Easement limits uses
- Both the landowner and the Land Trust are parties to any negotiation

#### Recommended Actions

- Review the Conservation Easement Deed to determine restrictions
- Discuss issues with landowner and Land Trust
- Design a level of use and facility that will meet easement's and owners' requirements.
- Monitor freezing/thawing and ice thickness

- Establish responsibility and schedule for ice surface maintenance
- Establish parking facility
- Boards for temporary hockey rink can be put up for informal games
- Build temporary or portable warming facility
- Provide portable toilets

Recommended First Actions

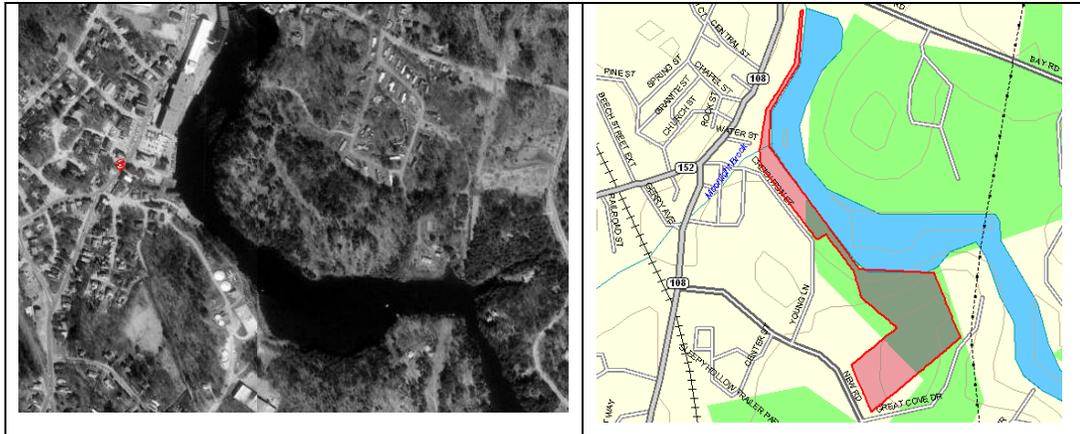
- Review Conservation Easement and meet with discuss with landowner and Land Trust
- Monitor freezing/thawing and ice thickness
- Design parking facility and warming hut



### 5.15 Site : The River Walk

#### Discussion

The River Walk can and should be the centerpiece of Newmarket's walking system. This urban river setting is one of the most scenic spots in town. In fact, in its entirety it has some of the most striking views in the region. Its focus on Water Street at the heart of downtown has recreational, scenic and commercial significance. The current redesign plan prepared by Charles Hoyt Designs creates an appealing centerpiece for the River Walk. This is balanced by the boardwalk and viewing platform built by Timberland volunteers across the river at Heron Point. The next step is to connect these. If land connections cannot be acquired, a floating walkway or other connection should be considered. This will give pedestrian access to the proposed trail system at Heron Point. The next step should be to extend the River Walk along the village side of the river to the town properties where the waste treatment and DPW operations (Lots U3-47, 49, 50) and NH Fish and Game (Lot U3-51) are located. Undeveloped portions of these public properties and areas included within the proposed dog park, detailed below are well suited for trail development.



#### Proposed and Existing Facilities/Services

- Boat launch at Water Street
- Parking, picnicking, river viewing
- Board Walk and viewing platform at Heron Point
- Town owned property accessible from Water Street and Young Lane

#### Problems/Issues

- Private ownerships interrupt town ownerships along river
- Some of the old mill buildings need rehabilitation
- Boat launch and retaining walls are in poor repair
- Lack of parking at Water Street
- Difficulty of access to river except at Water Street

### Recommended Actions

- Develop a comprehensive plan to establish walking access among these river perimeter properties
- Focus on making significant portions disabled accessible
- Evaluate opportunities for compatible activities, e.g. fitness trail, ropes course, orienteering, etc. at southeastern end beyond Fish and Game land
- Seek acquisition of intervening properties or gaining pedestrian access across these properties
- Sequence development to maximize public use and funding opportunities

### Recommended First Actions

- Determine opportunities to acquire rights or ownership for pedestrian access
- Develop integrated design/plan for entire system
- Seek acquisition of intervening properties or gaining pedestrian access across these properties





## 5.16 Site: Dog Park & Trails

### Discussion

A dog is a man's best friend. Nevertheless, most towns are ill suited to dogs and their needs. Apartments are small; streets are sterile environments with little stimulation; leash laws are practically universal. Newmarket once was a town of small farms where dogs were free to roam. Now most residents live in apartments or subdivisions, where dogs cannot run. Some people take their dogs to the rail trail for some outdoor exercise. Others try to take them to run on the athletic fields, but most are leashed and receive daily walks on sidewalks, streets and side roads. The proposed dog park will provide owners with an enclosed space where their dogs can run, get exercise and be relatively free for a few minutes or a few hours.



### Proposed Facilities/Services

- A fenced, open area of \_\_ acres with grass, trees and shrubs
- Self-policed by dog-owners
- Accessible year-round
- Does not require level or particularly gentle terrain
- Parking

### Problems/Issues

- Size is limited. If successful a second site can be developed later
- Dog parks do not mix well with other activities
- Currently, use of athletic fields for dog walking a problem.
- Pet owners must clean-up after their pets.
- Requires regular maintenance and repair
- Some multi-use trails could be used for dog walking but will be important to provide pooper scooper bags.

### Recommended Actions

- Select location and undertake necessary clearing, planting and seeding

- Build chain-link or similar strong fence, with appropriate gating
- Provide adequate off-street parking
- Publicize locally

Recommended First Actions

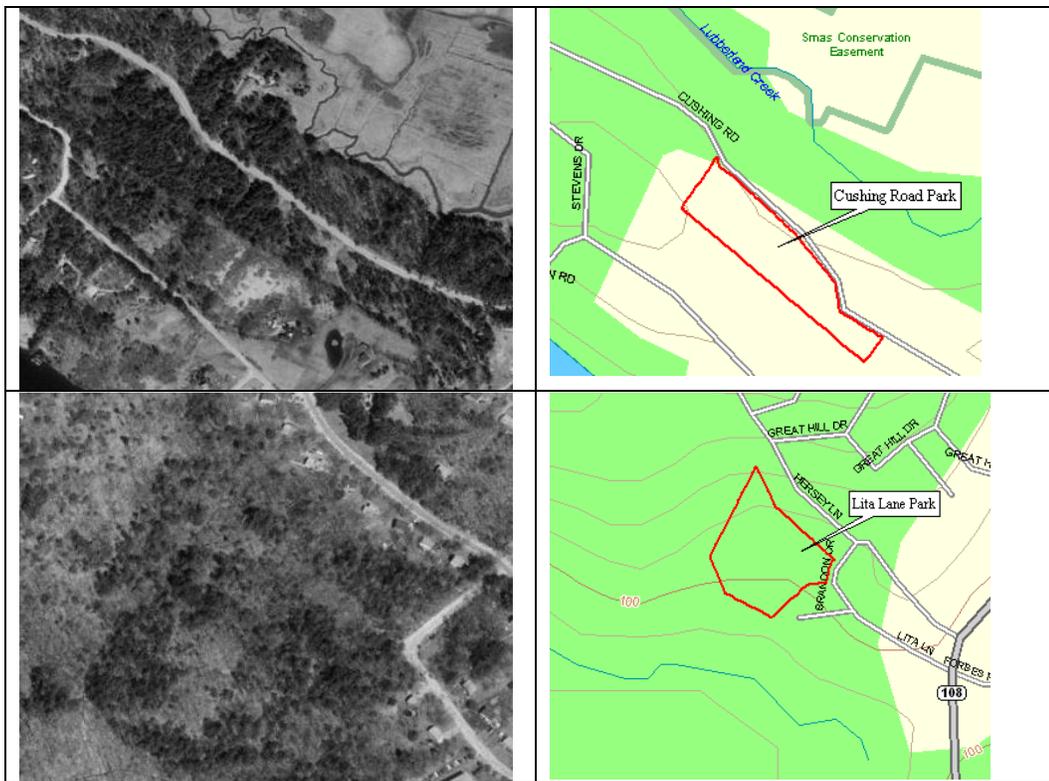
- Identify one or more potential sites
- Hold public hearings to determine local attitudes
- Clear and landscape lot

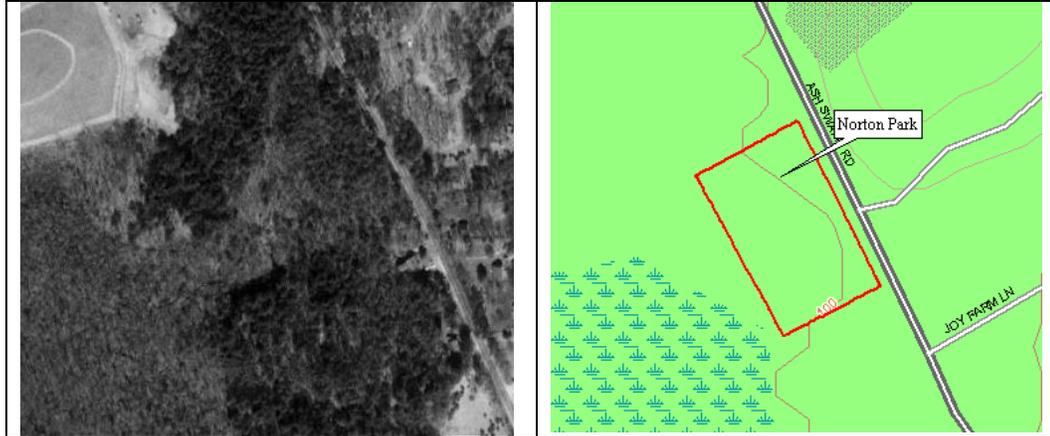


### 5.17 Site: Neighborhood Parks

#### Discussion

Neighborhood parks are an important part of the social and recreation fabric of communities. They are areas where neighbors encounter each other in informal and relaxed conditions. They are places where small children can play with other neighborhood children and where adults and young people can meet for casual games of Frisbee or catch or touch football. These parks also assure that there is green space available in more densely developed neighborhoods providing respite in hot weather. This plan recommends three neighborhood parks in dispersed residential areas within Newmarket. Each park facility layout is fitted to the particular site but each is also representative of numerous parks that could be developed near residential concentrations.





#### Proposed Facilities/Services

- Cushing Road Park
- Lita Lane Park
- Ash Swamp Park

#### Problems/Issues

- These small parks are designed to provide informal recreation, not team sports
- Off-street parking should be provided but should be limited
- Bike paths and walking paths should be developed to link the parks with nearby neighborhoods
- Neighborhoods should take responsibility to prevent vandalism and report needed maintenance and repairs

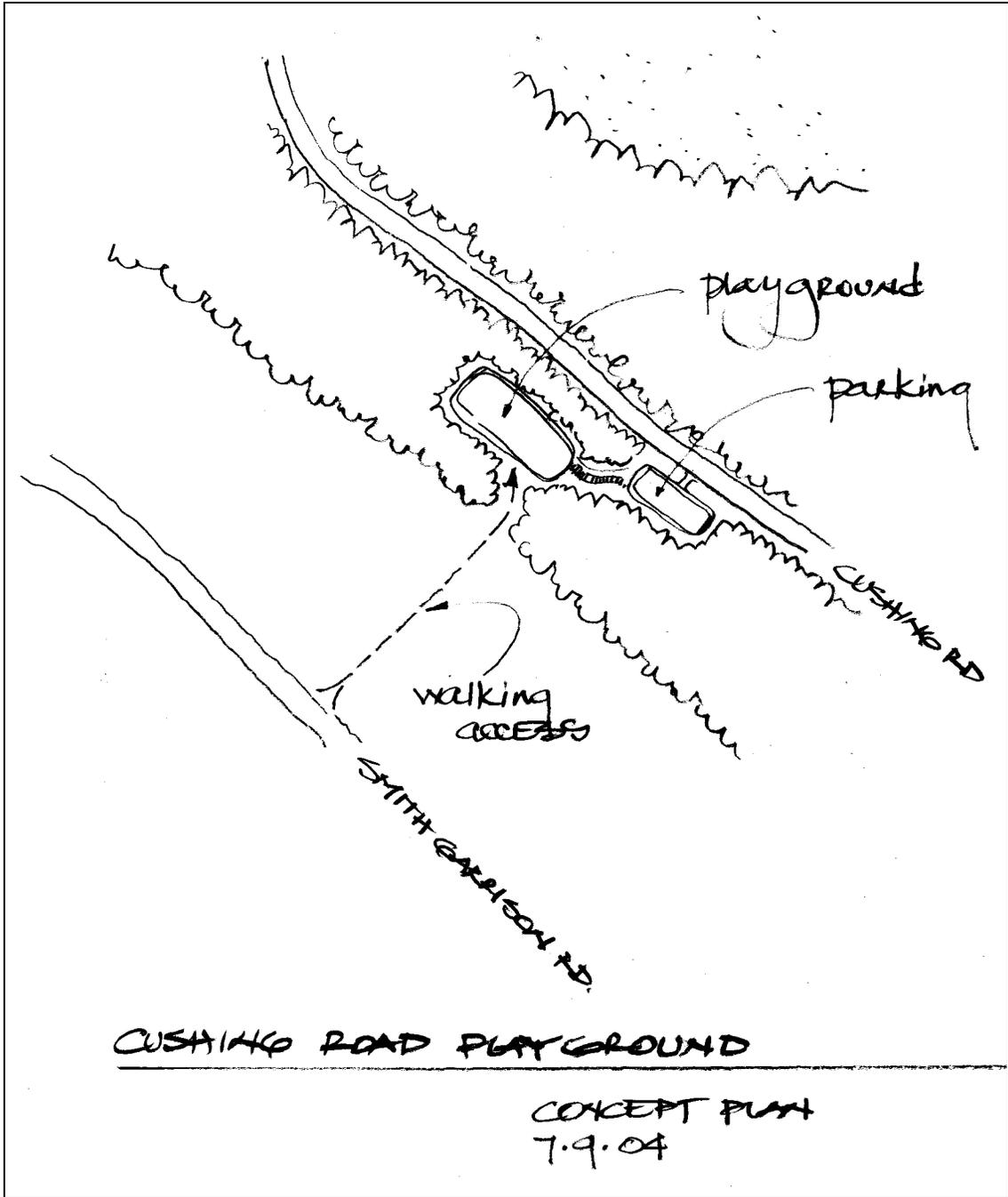
#### Recommended Actions

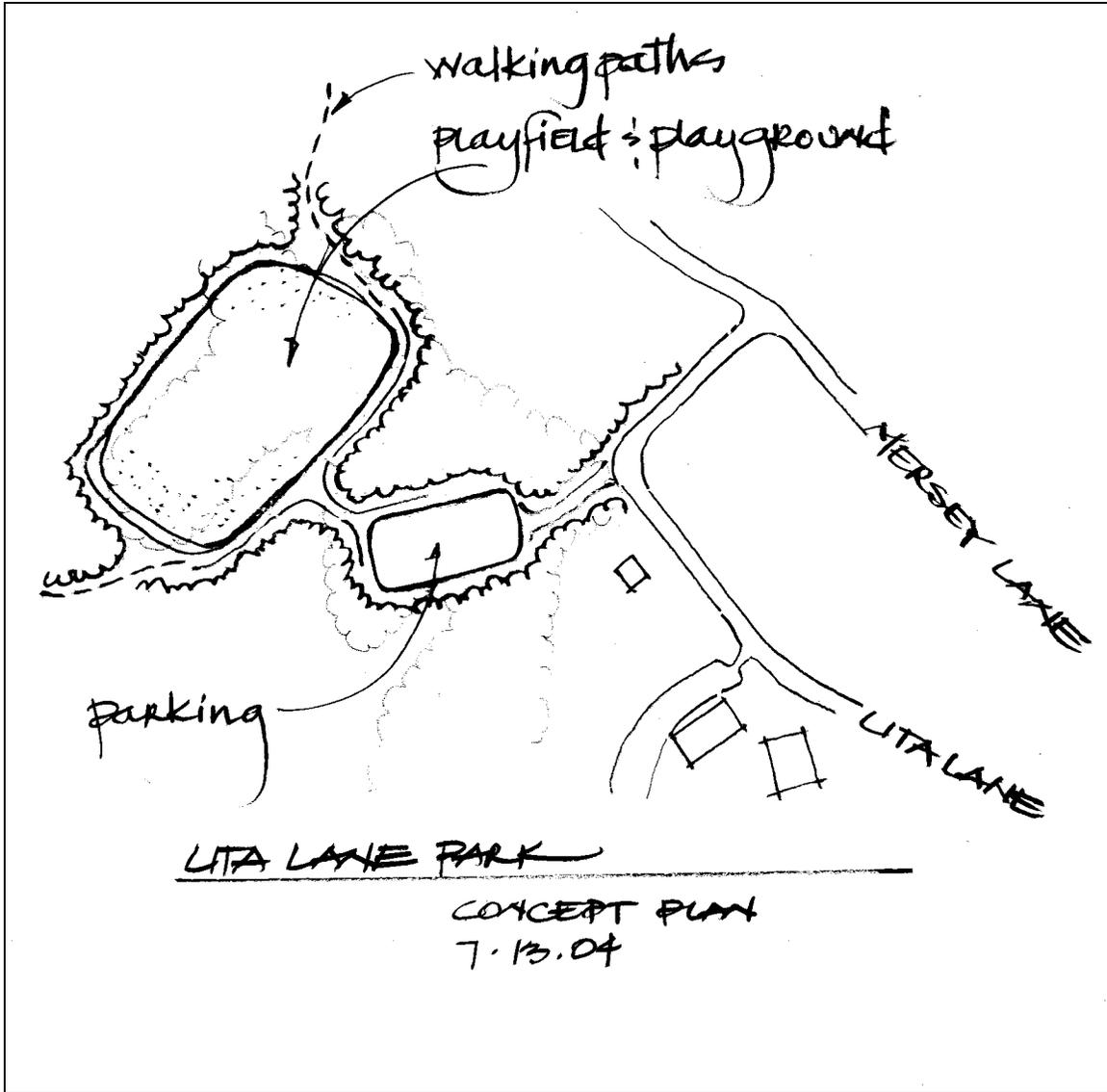
- Recommended sites either already are town owned or are designated open space
- Open areas for informal games and relaxation are most important elements of parks
- Include a full-sized basketball court for at least one park
- Establish diverse area of sunlight and shade throughout the day as well as open areas large enough for Frisbee, touch football, etc.
- Provide picnic tables and playground equipment
- Enforce a carry-in carry-out policy

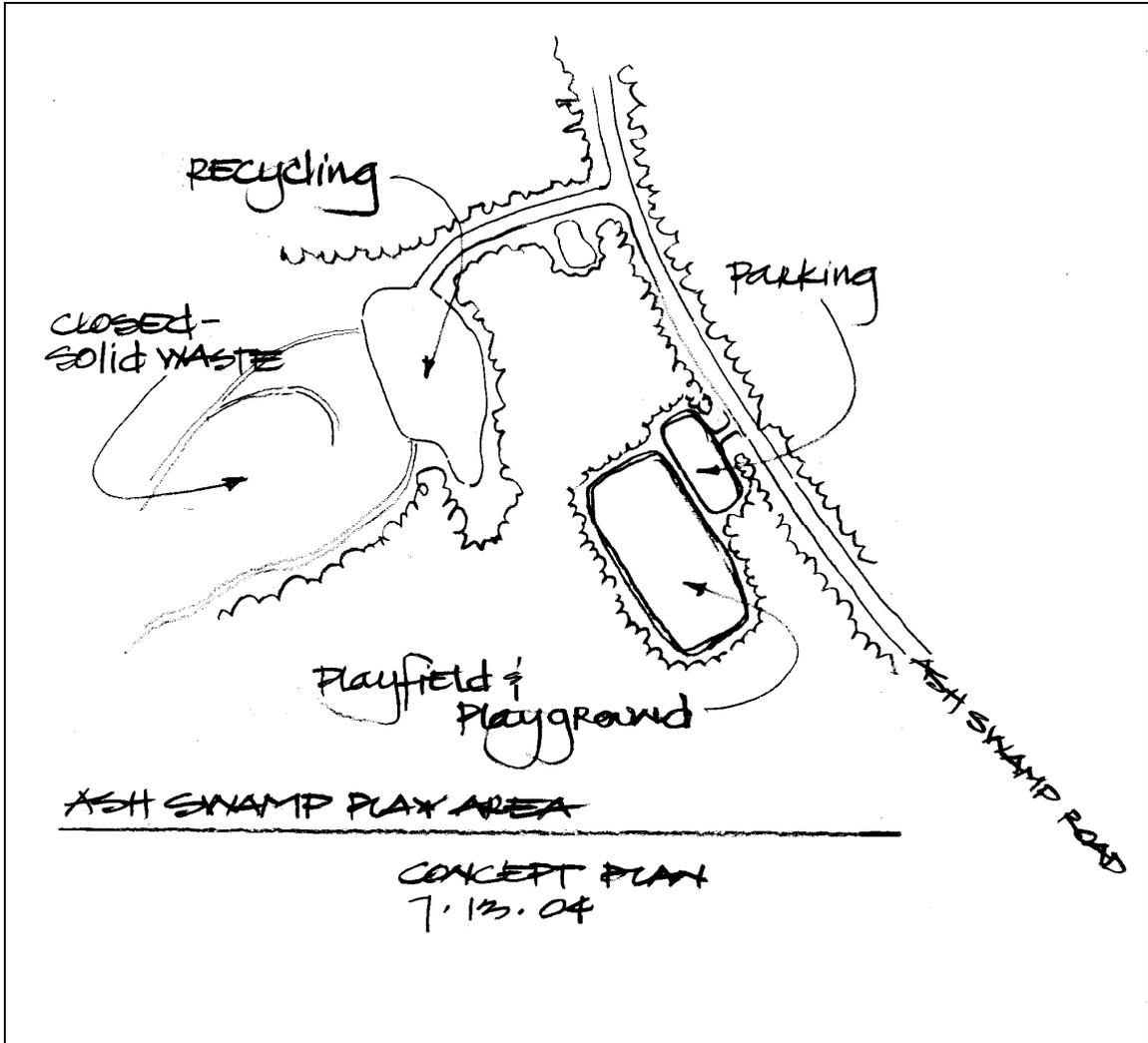
#### Recommended First Actions

- Organize neighborhood meetings to introduce park concept and solicit ideas
- Get started where interest is greatest
- Seek volunteer input
- Finalize a layout plan for each park and use this plan to discuss recreation needs and opportunities at the neighborhood meetings











## **VI. Trails Design and Location**

### **6.1 Introduction**

A well designed, well maintained trail system is a great asset to a town. It increases access to points of interest and important sites throughout the town. It provides health improvement opportunities and recreation opportunities for all ages. This plan focuses on three types of trails. These are walking trails, cross-country ski trails and bicycle trails. Although there are times and places where trails can be shared by users pursuing different activities, it generally is wise to think of these trails as separate, single purpose corridors. Most commonly winter and summer uses can be shared, walking trails being used for cross-country skiing or cross-country trails being used for bicycling. In Newmarket, however, where snow is not deep for most of the winter, this may work less well. Walkers are likely to continue walking through shallow snow and interfere with skiing tracks and grooming. Similarly, ski trails that can cross wet ground under frozen conditions can be torn apart by mountain bikes during the rest of the year.

Nevertheless, well-constructed and managed trails can be shared, particularly in more urban settings. The River Walk is a good example of a corridor that can be shared by walkers and bicyclists. It is in a setting where the terrain is gentle, the treadway is tough and travel is relatively slow.

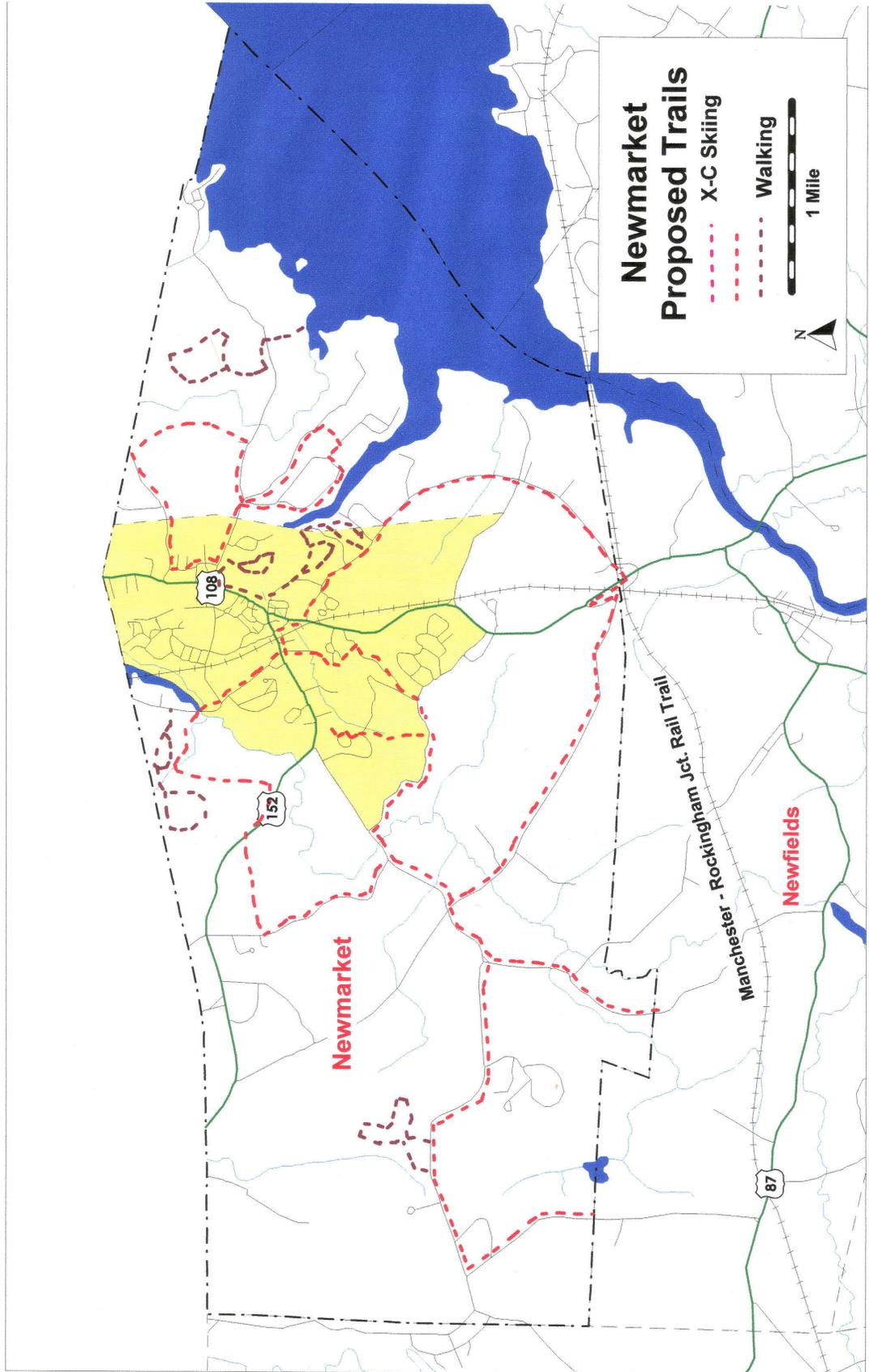
Overall, trails generally serve two functions. The first is access; the second is recreation. These are not exclusive, but they represent the difference between these two types of trail. A trail that goes from a residential development to a school is an access. Children use it to walk or ride their bicycles between their homes and the school. A trail around a beaver pond is a recreational trail. It is not used for the purpose of reaching another location. The experience of walking on the trail and enjoying the surroundings is the whole purpose of the visit.

### **6.2 Cross-Country Ski Trails**

Existing opportunities for cross-country skiing in Newmarket are limited. There are no commercial skiing centers here or in neighboring towns. The uncertainty of consistent snow in this part of the state makes a commercial operation risky. The best opportunities for cross-country skiing now are on the golf course.

Although some skiers enjoy setting off into the woods and breaking their own trail most prefer a prepared track, requiring scheduled grooming and track setting. This is particularly important in this area where snowstorms are likely to include some periods of rain or frozen rain and there are periods of thawing and freezing between storms. Therefore, a commitment by the Town to significantly upgrading cross-country skiing should start with an investment in grooming equipment and the staffing (paid and/or volunteer) that will be required.

Several of the areas identified as walking areas may also be suitable for cross-country skiing. These are Heron Point, Leary Field and Grapevine Hill/Tuttle



Swamp. In addition a large forested area near the geographic center of town also has development possibilities.

### **6.3 Bicycle Trails**

Bicycling, unlike other pedestrian activities, has two distinctly different forms of enjoyment. One is road riding; the other is mountain biking. Although one can ride mountain bikes on paved roads, one cannot ride street bikes on mountain bike trails. This plan outlines several sites where mountain bike trails can be part of a larger trails development program. These are Heron Point, The River Walk, and Leary Field / Folletts Brook. The recommendations for this planning period are relatively modest. Priority is given to development of walking and, to a lesser extent, cross-country skiing trails.

Developing opportunities for road biking is primarily a function of addressing the schedule for road resurfacing and upgrading in town. The trails map illustrates a set of town roads that should include biking lanes. It is recognized that adding these lanes can be both difficult and expensive. Most of these roads were laid out over two hundred years ago winding and curving to follow the lay of the land. Modernization for trucks and automobiles has consumed the existing travel space. Nevertheless, state and federal funding is available for such upgrades and long-term planning for road maintenance should incorporate these opportunities.

Overall the goal of these proposals is to both provide access throughout town, particularly from residential areas to downtown, schools and recreation sites. In addition these routes should provide recreational and fitness benefits. The recommended layouts provide access at several points along the Manchester-Rockingham Junction Rail Trail in Newmarket and through Newfields.

### **6.4 Trails Parks**

Five areas have been identified as existing sites or potential sites for recreational walking trails. These are distributed throughout the town and are based either on existing trails or other recreational features. Some are best suited for one type of trail use, while others can support either two or three trail systems or, in a few instances have multi-use trails. From east to west these are:

- Jeffs Hill / Lubberland Creek
- Heron Point
- The River Walk
- Leary Field / Folletts Brook
- Grapevine Hill / Tuttle Swamp

#### **6.4.1 Jeffs Hill**

Located in the eastern portion of town with access from Bay Road, this is an existing set of trails on land owned and managed by The Nature Conservancy.

#### Natural Features.

Jeffs Hill is a promontory overlooking Great Bay, the lower reaches of the Lamprey River and wetlands associated with Lubberland Creek. The Forest is mostly open hardwoods and white pines. The views from Jeffs Hill are somewhat limited by but the lower slopes provide views of the wetlands. South of Bay Road the trail goes through more dense forest with views across adjoining fields and ends at the edge of the meadows near the mouth of the Lamprey River at Great Bay.

#### Trail Features.

The trails are narrow hiking trails. Those leading up Jeffs Hill are quite steep in places. They are well signed with numerous directional arrows where the trail winds and turns. At the summit there is a stone memorial bench. The trails on the north side of Jeffs Hill and leading to the Lamprey River are more gradual. Parking is very limited on Bay Road, which is narrow and curvy.

#### Management Recommendations.

At present, use of these trails appears to be low. The poor parking conditions may contribute to this condition. If use increases significantly erosion is likely to become a problem on the trail leading up the southwestern slope to Jeffs Hill, which is steep with shallow soils. Under such conditions an agreement between The Nature Conservancy and the Town to share management and environmental protection responsibilities might be a good idea.

### **6.4.2 Heron Point.**

This tract is located on the eastern shore of the Lamprey River immediately below the dam. This property has been discussed above as an important conservation property for the Town. It also is an outstanding facility for walking and has potential for additional trails development. It may be the best location for developing some multi-use trails that can be used by walkers and bicyclists and by skiers and snowshoers in winter.

#### Natural Features

Heron Point borders the Lamprey River. It is quite rough with exposed ledges and shallow soils. The terrain is generally undulating, with numerous small wetlands. The tract is forested. Trees are generally small although there are scattered mature stands of hemlocks and hardwoods.

#### Trail Features

Through a cooperative agreement with the Town, Timberland Corporation has volunteered to build and maintain a wooden walkway and deck at the edge of the Lamprey River. In addition to being beautifully designed, the structure offers remarkable views across the river to the historic mill buildings. The juxtaposition of a natural setting and historic development is unusual if not unique. The wooden walkway runs along the river for a hundred yards or so. The rest of the

conservation land tract is undeveloped and has only informal paths. There is relatively good parking and an attractive sign kiosk at the entrance to the tract. However the location off from Bay Road and through a mobile housing development is difficult to find.

#### Management Recommendations.

The Timberland boardwalk and kiosk set a high standard for recreational trail use on this property. In keeping with these features a high-standard multi-use trail system would be an asset to the town for several reasons:

- The existing standard of the Timberland facilities would be sustained
- Proximity to the town center makes multi-use appropriate
- Connection to River Walk extends the downtown recreation opportunities
- Scenic features are the key recreation asset

Based on these factors a carefully laid-out system of trails that complement the existing boardwalks, extend along the river and take advantage of viewpoints, terrain and natural features. These are relatively highly engineered trails, unlike the trails discussed above at Jeffs Hill. They are wider, usually require fill, have an all weather base and are designed for simultaneous use by different activities.

Such trails are ideal for cross-country skiing and should be designed and laid-out to maximize efficiency for grooming and to take advantage on the numerous viewing opportunities. Although the walking trails plan envisions a connection to The River Walk, this would not be part of the skiing system, since The River Walk connection would be plowed throughout the winter. The interior portions of the Heron Point would be particularly appealing for skiing where terrain and interior views are particularly appreciated.

#### **6.4.3 The River Walk**

The revitalization effort for downtown Newmarket has already made the River Walk a centerpiece of a visitor/walker friendly downtown. The primary design effort has been centered around the boat launch and Water Street, but extends from the dam downriver to the town dock on the village side of the river.

#### Natural Features

This trail feature is immediately across the Lamprey River from Heron Point. It benefits from the scenic backdrop of the River and Heron Point. Access to the river at the northern end is visual rather than physical, but at Water Street the boat launch provides direct access. A small park here is well suited for enjoying the river and the urban setting.

#### Trail Features

Except for a short extent at the southern end The River Walk follows a paved way. From the north it comes across the dam, behind the mills and down to the riverfront, which it follows to Water Street. From here it is a short distance along

a brick walk to its end. The park below Water Street is landscaped with picnic tables, plantings and additional river views, both across to Heron Point and back up river to the mill buildings.

#### Management Recommendations

The River Walk has already been well established. The two primary goals here should be to create a setting from the dam crossing to the boat launch that is as appealing as the planned development from the boat launch south to the end of the property. This is more difficult because the upper portion is also used for vehicles and it is necessary for business access. Defining the trailway, providing aesthetic enhancements and proximity to the river should be priorities for this trail asset. The other goal should be to connect The River Walk with Heron Point and with the town property downriver where the wastewater treatment and public works garage are located. Even if this requires sections that follow public roads the value of the connections for recreation would be invaluable.

An important added step is to connect the southern end of the River Walk to the town owned property behind both the sewage treatment plant and the General Services garage. Both these city facilities take up less than half of their lots and the undeveloped area is rugged and forested. Extending along the Lamprey River past the NH Fish and Game river access property and onto the forested tract behind the garage and continuing along the former town road behind the sewage treatment plant would create an excellent trail loop for walking, jogging and bicycling. This is comes around the area recommended for the dog park as well. Naturally, although adjacent the dog park and the recreation trails would be separated.

#### **6.4.4 Leary Field/Folletts Brook**

The Leary property originally acquired by the Newmarket Conservation Commission has been reconfigured to provide both conservation and recreation benefits. Additional property has been acquired as well. The property runs on both sides of Folletts Brook and adjoins additional open town land extending to and including the Loiselle Tract with frontage on Wadleigh Falls Road.

#### Natural Features

Leary Field and Folletts Brook is an area off Packers Falls Road that is dominated by Folletts Brook and associated wetlands and gently sloping terrain. There are exposed ledges in places, but generally, the soils are well suited for a variety of recreational and trail uses. Most of the forestland is hardwoods with several stands of mature white pine.

#### Trail Features

Existing trails are old town and old farm roads, as well as logging roads. Some are used for informal walking and some are used by recreational all terrain vehicles (ATV). Presently, there is an informal crossing of Folletts Brook.

Wetland gullies caused by ATV's is a problem here and the crossing is only available to pedestrians during dry seasons.

#### Management Recommendations

With the anticipated development of Leary Field for soccer, softball and other athletic activities it is likely to become a center of recreational activity. The close association of conservation land with recreation land creates an excellent opportunity to develop trails that will provide recreational opportunity in a natural setting. These adjoining conservation lands provide a full range of trails potential including walking, bicycling and cross-country skiing trails. Generally these are likely to be single use trails, but in places shared use may be appropriate. A high standard pedestrian bridge is needed across Folletts Brook to connect the trails on both sides of the brook. Using the parking and other facilities at Leary field, instruction and other trails programming can be developed around these trails.

#### **6.4.5 Grapevine Hill /Tuttle Swamp**

This large conservation project in the western section of the town has a variety of environmental assets. A Master Plan prepared for the property outlines some of the recreational potential here. In addition to winter sliding on the hill there is an extensive area for trails development.

#### Natural Features

This area has varied terrain and forest conditions. Open fields and hilly terrain to the south and a pond and extensive forested wetlands further north. The road frontage on Grant Road provides access but the rest of the tract is quite remote. Adjoining properties owned by the Town and The Nature Conservancy extend the protected area further north and create one of the largest protected open space areas in Newmarket.

#### Trail Features

Currently there are no trails on these properties. A small parking area has been established near the southwestern corner of the protected property. The most popular use of the property has been for sliding in the winter. Other potential uses are limited by the conservation easement on the property held by the State of New Hampshire. This easement does permit walking paths, however. The draft plan recommends a loop trail around the edge of the open field with an extension along the existing snowmobile trail to a viewing blind (to be constructed) overlooking the pond. Longer term the consideration should be given to extending the walking trail along the edge of the wetland. Careful layout and use of puncheon (log walkways) can protect fragile soils and maintain an enjoyable walking experience in these conditions. Since this is a popular winter recreation area, particular developing some winter-use only trails for snowshoeing would further enhance the recreation benefits for this property.

### **6.5 Bicycle Routes**

The key feature of bike routes through Newmarket is to provide safe, enjoyable bicycle access between key sites around town, particularly among important areas such as downtown, schools and recreation areas. It also is important to provide access from principal residential neighborhoods to these important town facilities. Therefore bike lanes are recommended for New Road, Ash Swamp Road, portions of Grant Road, Lita Lane, parts of Hersey Lane and portions of Packer Falls Road. East of the Lamprey River bike lanes are recommended for Lamprey Street, portions of Bay Road and Dame Road, portions of Smith Garrison Road, Stevens Road and Cushing Road.

## **VII. Universal Design**

### **7.1 Overview**

Universal Design in recreation is conceived to establish facilities and programs that are available, accessible and useable by all visitors, including persons with disabilities. Universal Design recreation sites are not just designed to fit the "average" person but to accommodate the broadest possible spectrum of people through a single, all-encompassing design. The major design considerations include space allowances and reach ranges. Space allowances are used to accommodate people using mobility aids, and reach ranges refer to the heights that a seated person can reach.

In general, recreation facilities should be designed to be fully accessible in all areas, including areas for meetings, education, food preparation, and eating, toilets, displays, education and information areas, etc. Most people with disabilities should be able to participate without having to depend on others to assist them in using any part of the recreation facilities or programs. A well-located and designed facility will alleviate some of the most difficult accessibility problems associated with the natural topography of outdoor recreation areas, as well. The Universal Design approach incorporates space allowances and reach ranges that accommodate the widest spectrum of visitors. By using the Universal Design concept, able-bodied visitors are fully integrated with visually impaired visitors, those with hearing impairments, developmental disabilities, and physical mobility impairments.

The following are examples of universal design considerations for some of the recreation facilities existing in, or recommended for Newmarket.

### **7.2 Swimming Opportunities**

Water-based recreational activities are among of the biggest attractants to park areas. Swimming is a popular activity for persons with lower body impairments since the buoyancy of water lessens their disability.

The sand surfacing is the major problem for beach access. It is not stable or easy to walk across, or push a wheelchair across, when not packed. A firm and stable accessible route surface may be accomplished using permanent (wooden boardwalk, concrete) or removable materials (mesh, mats), and must be properly maintained.

Ramps are a common form of water entry. Swimmers can use a ramp with a handrail to walk into the water on a firm surface holding onto the handrail. This is useful for young children, people with visual impairments, and some people who have difficulty walking. The guidelines for ramps into water are also developed to allow wheelchair users to enter the water in a wheelchair and float out to swim. General-use wheelchairs are not constructed to withstand immersion in water. Beach wheelchairs are available specifically designed for crossing sand surfaces and being submerged in water. Wheelchair users can transfer from their general-use wheelchairs into a beach wheelchair and use it to access the beach area and the water.

Purchase of certain adapted recreation equipment may be something that the Recreation Department should consider. These are good projects for sponsorship. Northeast Passage at the University of New Hampshire has a variety of rental equipment program, as well.

Guidelines for swimming area ramps for a swimming area such as this one are:

- \* Landings at each end of ramp and at direction changes (60" x 60" min.).
- \* Ramp slope 8.3% maximum.
- \* Vertical rise 60" maximum.
- \* Horizontal projection 40' maximum.
- \* 36" minimum clear width.

Stairs should be provided when access is not provided by a ramp.

Guidelines for stairs into water are:

- \* Stair risers and treads must have uniform width and height.
- \* Minimum stair width is 36".
- \* Minimum tread width is 18".
- \* Riser height between 4" - 6".

Surfacing materials for ramps and stairs must be slip resistant, non-abrasive, and absorb a minimal amount of heat when exposed to the sun. Handrails, if provided, must meet all handrail requirements (ADAAG) and end at water level at the lower end of the ramp or stairs. They assist with support and balance, and should be provided where safety is a key concern.

### **7.3 Picnic Areas**

Picnic areas should offer accessible amenities that may include picnic tables, charcoal grills, fireplaces, toilets, water faucets, trash receptacles etc. Most commercial sources of picnic and camping area equipment have models designed for accessibility. The recommended picnic table design has a tabletop that extends at both ends to meet the 19" overhang knee space requirement. The level of accessibility at each picnic site would depend on the location of the picnic area in relation to the other developed areas, as well as the level of difficulty of the trail to get to the site.

### **7.4 Fishing Sites**

The majority of developed fishing areas should be located along accessible routes of travel and where there are good opportunities to catch fish.

Shore areas for fishing areas must be firm, stable, and slip resistant with maximum slope 3% in any direction. It should provide a minimum of eight feet clear space behind the angler, minimum of sixty inches diameter around the angler, and five feet minimum water frontage per angler. Edge protection drop-offs should be four inches minimum and safety rails, if needed, should be thirty-two inches above the ground surface. Providing opportunities for fishing in shaded areas is important, even if it is constructed shading. Vertical clearance above the angler in shaded areas should be 144" minimum from

ground surface.

There should be a variety of fishing sites offering different levels of site modifications, from constructed wooden platforms to gravel or grassy sites with natural site improvements such as boulders for edge protection and vegetation for shading. Fishing in developed settings should provide an easy level of accessibility and emphasize safety. These developed settings should include amenities such as tackle box shelves and rod holders. Fishing in less-developed settings should incorporate safety and accessibility but emphasize the natural setting and natural materials.

### **7.5 Boat Access Sites**

Any boating facilities must be designed incorporating Universal Design concepts. At least one boarding dock must be accessible. The boarding dock must be 60 inches wide minimum and meet all the guidelines for an accessible route. The maximum slope of the gangway should not exceed 1:12 (8.33 percent). At this time there are no guidelines regarding loading or unloading persons with disabilities onto a vessel.

### **7.6 Trail Systems**

There are basically two types of trails: 1) access routes and 2) recreation trails.

#### **7.6.1 Access Routes**

These are paths that provide easy access to facilities and activities that serve all visitors such as athletic fields and parking areas for which there is expectation for easy accessibility. In these developed settings structural elements are emphasized and path edges should be easily distinguished by changes in the surface texture. Slope and especially cross slopes should be minimal. There should be wide corridors and enough width for rest stops and passing.

#### **7.6.2 Recreation Trails**

-Recreation trails provide access to the town's less-developed recreation areas and assets. The level of development in these areas, as well as visitor expectations, should be considered when assessing the level of accessibility and what trail modifications are appropriate for that level. When traveling into less-developed areas the expectation is for moderate access. The recreation experience of walking and the natural environment are the most important considerations for the trail. Modifications solely for accessibility would be inappropriate.

In some cases recreation trails also provide access to other recreation activities such as fishing platforms, scenic views, interpretive sites, etc. This combines the functions of access and recreation trails. In these cases accessibility is more important than for the trails where walking is the sole purpose of the trail. As the level of development and modification decreases visitor expectations of comfort, security, and improvements for accessibility are expected to diminish, and expectations of challenge, risk and solitude are expected to increase.

Trails should be designed to blend with the natural beauty and environmental features of their surroundings. Modifications that threaten or destroy these features will compromise

the very reasons that people use them. Universal Design in outdoor recreation settings can be accomplished through the integration of a variety of outdoor recreation access routes and recreation trails at different levels of accessibility. Individuals are then free to choose a trail that provides them the recreation experience and degree of challenge and difficulty they desire.

For accessibility guidelines on trails and access routes refer to appendix A.

### **7.7 Toilets**

All toilet facilities, no matter where they are located or what type of construction (flush, vault, or compost), should be accessible to meet the ADAAG guidelines. Toilet facilities in highly developed areas should be fully accessible and toilet facilities in semi-primitive settings should be accessible as well, but can be simple and rustic in design.

### **7.8 Signage**

Signs at facility entrances, signs that give direction or information, and signs that are permanent identification for elements and spaces should comply with the guidelines in ADAAG. These signs should incorporate: raised letters, Braille, high resolution color contrasts, well lit locations, large print size, easy to read print type, etc.

Displays and other informational features should:

- use colors that have sharp contrast between the text and the background
- provide hands-on opportunities that are within easy reach for most everyone
- use easily understood language and sentence structure
- use numbers and letters sized according to the distance from which they will be read.
- Typefaces should be sans or simple serif
- use adequate lighting positioned to reduce glare/reflections from all viewing angles
- have audio text or captioned videos whenever possible
- be located on an accessible route, with display cases designed for easy viewing by seated or short people
- allow the reader to approach within 3 inches of each sign
- use tactile and other multi-sensory ways to communicate messages

Signs are an important means of informing recreation users about facility conditions, schedules and regulations. Trail signs are particularly important. They should include such information as: trail name, length, elevation change, grade (average and maximum), cross slope (average and maximum), width (average and maximum), and surface characteristics. As a general rule trails may be broadly characterized by the expected level of access for a setting:

- easy accessibility - urban/rural recreation setting
- moderate access - roaded natural setting
- difficult access - semi-primitive

See appendix A for more detail.

Trail signs should be made of natural materials using colors that are appropriate to the setting. Signs with cleanly routed lettering work as well as raised lettering for a visually impaired person. Trail brochures and trailhead maps should also include slope/grade profile graphics or a top view of the trail that can indicate to trail users where obstacles can be expected along the trail. These maps also provide information about changes in elevation and trail surface conditions. The basic idea of trail signing is to give users information on the conditions they can expect to find along the trail. By giving them accurate information they are empowered to make their own choices on which trail is suitable to fulfill their expectations and is within their abilities.

### **7.9 Maintenance Plans**

Maintenance plans should be developed to incorporate practices that uphold the intended level of accessibility. It is the nature of outdoor recreation sites to find steady deterioration of the intended level of accessibility due to wear and tear by visitors, as well as from weathering by Mother Nature. Vertical transitions where changing ground surfaces occur, vertical overhead clearances, protruding objects, edge protections, and tactile distinctions are some features that require regular maintenance. Faded and worn or vandalized signs, lost trail edge definition, overhanging branches, trail cross slope erosion, even picnic tables pushed together may be barriers to full enjoyment for some people with disabilities.

## **Section VIII: Projected Maintenance & Operations**

Proposed facilities and/or enhancements are discussed in this chapter in terms of maintenance and operations projections. Much of this material can be used in detailing of contracts and/or job descriptions. Most existing and proposed recreation facilities share a number of common operations and maintenance needs, although many have *unique* requirements, as well.

Good design and preventative maintenance help control costs and are fundamental for sound risk management.

### **8.1 Design, Maintenance & Staffing Considerations for Active Facilities**

Active facilities are defined as the recreation elements where “play” is conducted. This chapter section addresses community-identified recreation priorities and their currently strained or absent facilities.

#### **8.1.1 Sports Fields**

There is substantial stress on existing sports fields. In part, results from tremendous and varied demand. Other factors, however, compound the problem. Consistent growth in sports participation has caused significant over-use of existing fields. There are an inadequate number of fields to allow rotations for field rejuvenation. In addition, most fields have design issues and/or physical conditions that frustrate maintenance and performance. Requirements of multi-seasonal uses add another layer of stress that limits adequate time for badly needed enhancements.

Recommendations listed below, again, should be considered in terms of *whenever* and *wherever* appropriate.

#### **8.1.2 Sports Field Design & Maintenance**

Field size: adequate for variety of single season-sports (over-lay capacity); convertible for multi-season use...

Turf specifications: min. 6” loam over 12” well-drained gravel or mineral soil base.

Grass specifications: seed mix as determined by soil type...

Drainage: elevated field (12+ inches) above surrounding terrain; slightly crowned surface(1.5%-2%); perimeter drains; cross-field drains if necessary...

Irrigation: automatic, sensor-driven, irrigation system...

Lighting: 3-phase power; optimize use of field; concession requirement(?); flexibility...

Fencing: field perimeter, as required; access and parking areas, as required...

Spectator viewing: bleaches (permanent and/or portable); benches...

Media & Officials Space: elevated media platforms/shelters; power...

Communications : PA system; radio/phone system between officials box and field...

Overflow parking: events/competitions; cell-based lawn area; spectator drop-off area...

Special parking: disabled/elderly; vans; buses; equipment supplies; concessionaire; officials; spectator drop-off...

Equipment storage building: maintenance and operations supplies; adequate, safe space...

Fist-aid: separate room or tent; dedicated emergency access...

Revenue: non-resident parking fee; sports team use fee; concession...

### **8.1.3 Sports Field Maintenance Requirements**

Although good field design will improve the capacity for sports programming and spectator access, it will likely increase the maintenance required. For example, better, irrigated turf will require more mowing and additional field equipment and structures will also add to work loads. However, timesavings derived from reduced incidents of vandalism, easier, maintenance of structures and equipment, etc. should help to minimize any increased maintenance time required.

Mowing and irrigation: as needed; cleaning toilets; refuse and re-cycled material disposal...

Responsive repair: vandalism; structural problems; infrastructure problems (irrigation, lighting, etc.); storm damage...

Responsive actions: turf repair; remove litter; remove leaves and litter.

Winter: snow removal; sanding...

Spring: general cleaning; aeration; fertilizing; painting; repairs...

### **8.1.4 Trails**

Resident surveys have shown that there is great interest in developing a range of trail opportunities. A University of New Hampshire walkability study reinforced the need for a variety of walking opportunities. A sustained growth trend in pedestrian-related health promotion, rehabilitation and trail sports has increased interest in more and better trails.

Trail development depends on mitigating environmental impacts, effective and efficient use of private lands and addressing costs and design challenges. Pedestrian trails can be damaged by overuse as well as by snowmobile, all-terrain vehicle (ATV) and mountain bike use. Therefore it is best to plan and develop separate trails for different uses. In some instances, different uses can be applied sequentially. For example, ATV trails can be used by snowmobiles when snow covered.

Capital for trail development is typically generated through community funding, fund-raising, donations, sponsorships, endowments, grants...or various combinations. Use of volunteers for offsetting costs of construction, maintenance and patrolling is also common. Good trail layout and design is critical. Professional assistance is a good investment. This helps assure that design and location will address such issues such as soil characteristics, slope, aspect etc. which can have a tremendous effect on costs of trail development, maintenance and operations.

Design guidelines to consider for effective trail design for all uses include:

- routing and topographic features suited to each use...

- durable, dry, smooth trail surfaces (i.e. hard-pack/ledge-pack; soil cement;

- resin-soil mix; 1/2"-3/4" gravel...packed mineral soil if suitable)...
- effective erosion controls (standard and site-specific designs)...
- avoidance of resource impacts...
- avoidance of serious user and landowner conflicts...
- effective, comprehensible, signs and maps.

In addition to these fundamental requirements, the strategic use of *dalliances* (views, picnic tables, benches, etc.) can help provide more entertainment on less trail mileage. In effect, dalliances help to slow down trail travelers, increase their involvement and appreciation for the trail experience, and encourage them to return for more outings.

Some trails and trail sections should also be designed for disabled accessibility. Accessible trail requires hard surfaces, free of obstacles and of adequate width. Primary gradients should range from level to no more than 5% with short slopes of no more than 10%. Pull-offs are also required where trails are not wide enough for users to pass.

Trail system operations should include seasonal maintenance tasks and storm response plans. As with any recreation facility, prompt repair of damage and vandalism is important for minimizing long-term costs.

Parking will be needed at some trailheads, even though proposed trails are within walking distance of adjacent neighborhoods.

Finally, since the cost of trails can range from *no cost* (i.e. footpaths developed by volunteers) to as much as \$20/foot (i.e. paved bicycle and/or disabled accessible) no estimates have been made for trail development. Also, only suggested corridor routes have been shown in the master plan. Decisions on final routings will require extensive fieldwork and construction costs that will be affected by soil type, topography, number and type of obstacles, desired use and associated specifications, etc.

### **8.1.5 Non-motorized Trails**

This trail category includes such uses as foot travel, cross-country skiing, snowshoeing and possibly cycling. Some trails can be as narrow as a footpath. Others may need to be 8'-10' wide to accommodate grooming and/or side-by-side travel. Maintenance costs, construction specifications and quality, level of use, public expectations, and range of anticipated skill levels are directly related.

Horse use is often problematic since it is usually quite impactive and needs to avoid conflicts with other users that may frighten the animals. Fortunately there is little demand for horse trails in Newmarket.

Specifications for non-motorized trail should consider:

Type of uses: walking, hiking, running, snowshoeing, fitness, interpretation, Nordic skiing, bicycling (depending on surface width, hardness).

Trail surface widths: single file track (4'+/-); side-by-side travel (6'+/-); groomed x-c skiing (6'-8')...

Corridor Clearance: 8'+ high; 6'+/- wide single-file; 8'+/- side-by-side; 10'+/- groomed x-c...

Raised Base: raised 4"- 6"+ (depending on amount of use, drainage needs and soil type) above abutting ground...

Surface: smooth surface (largely free of obstacles); packed mineral soil, 1/2" crushed gravel or similar; stepping stones; boardwalks/bridges...

Drainage: ditching; culverts; water-bars; rolling dips, box culverts...

Signage: trailhead board; color-coded map, use & trail info; name all trails (humorous & relevant); sign all intersections; blaze (painted) every 100'+/-; use universal signage; post degree-of-difficulty for skiers; interpretive signage and/or brochure...

Dalliances: benches, picnic tables, campsites; group campsites, views, photo ops...

### **8.1.6 Bicycle Trails**

Bicycle trails (street or modified bikes) require *very* durable, dry and smooth surfaces. Given these requirements and associated costs, these trails are often funded and maintained through various community avenues. Here again, volunteers can provide some degree of maintenance and patrolling.

Highway shoulders are commonly designated as bike lanes. but safety is a serious concern. Lanes that are at least 3' wide are optimum. Although shoulder lanes appear to be logical and affordable, additional cost for pavement and shoulder construction can be substantial. Many Newmarket roads are too narrow for bicycle use. Long-term, however, state and federal dollars are often available for this.

Coordinating development of bike lanes with town and state roadway upgrades should be a community goal.

Paved or hard-packed trails, especially for travel to and between schools, stores, neighborhoods, "play" facilities, etc., are normally designed for coexistence of pedestrian and bicycle users. Separate travel lanes, on paved paths, are often designated by striping. Such trails have proven to be an economic asset for communities.

### **8.1.7 Mountain Bike Trails**

Mountain bike trails are typically developed and maintained (if maintained) by groups of bikers or clubs. Despite trespass and erosion issues, growth in mountain bike use continues. Single-track trail (similar to dimensions for pedestrian single-file track) is generally preferred, although use of wider trails is also popular for speeding and passing sections on race routes. However, since mountain bikers always follow the most direct fall line, they create groves on wider trails that are especially prone to erosion.

Single-track trails are almost always on natural ground with minimal clearing required. Effective erosion controls can be difficult-to-impossible.

Topographic challenges and obstacles are important to this experience. Because of its challenges, mountain biking tends to appeal to a relatively narrow, fit, adventurous population.

There seems to be no ideal soil condition for mountain bike use. Sandy soils are unstable, but packed clay stands up well when it's dry,. Hardened, packed gravel or mineral soils with modest clay content seem to work best under most conditions.

Given performance issues and requirements for mountain biking, it is recommended that they be restricted to trails and sites where terrain and soil conditions are suitable. Whenever possible, co-existence with pedestrian and cycling use should be avoided. Shared trails with horse use also should not be allowed.

Some communities and commercial trail systems raise revenue through trail fees, licensing, etc.

### **8.1.8 Dog Trails**

Dog trails usually are developed by dog clubs or municipalities. Use of existing footpaths is also common. In any case, picking up pet *deposits* is almost always mandatory (and considerate). Pet exercise has become a commonplace activity that provides both the animal and the owner with needed outdoor activity.

Depending on level of use, pet “trash” barrels should be provided every 600-800 feet. These should be serviced frequently. In large areas of woodland and lengthy trails, lined pet “out-house” pits can be provided.

Dog “parks” are an alternative to dog trails. A dog park is simply a fenced area of woods, trails, and/or meadows where dogs can roam free, but under control of their owners.

Newmarket has several informal trail areas (footpaths) that residents use for dog walking now. Wider trails, specifically designed for pet exercise, are strongly recommended and will be used as fast as they are built.

Shared trails for dog walking and human walking are common, but not often the best solution...frightening people without pets, and dogfights can have serious consequences. As such, a prerequisite for exercising dogs on any trail or open space area is to have voice control or leashing dogs at all times. Clear designation of trails and open space for dog use, with enforced regulation, is intended to prevent such conflicts.

Revenue for dog exercise and play facilities is often provided through community budgets, dog licenses and or dog clubs. Some communities have successfully sold seasonal “dog play passes”, complete with picture ID's.

### **8.1.9 Motorized Trail**

There are few “motorized” trails in Newmarket, and none proposed. It is true, however, that demand for motorized trail continues to grow, spurred by continued investment and advancements in appeal and performance of off-road vehicles. Despite substantial reductions in noise and air pollution, more and more lands are being closed to their use.

Since motorized recreation vehicles generate license and tourism revenue, however, the state Division of Trails is committed to help provide them with a state-wide trail network and use of public lands. The Division also makes every effort to tie the use of motorized vehicles into grant-related trails programs.

Problems with snowmobile use have diminished considerably for several reasons:

- Clubs have proven to be effective and responsible in policing users, and in procuring permission for trail access from landowners.
- Clubs build/clear and groom their own trails.
- Care is given to avoiding sensitive resource areas.
- New machines have reduced noise and air pollution.
- Most owners trailer machines northward to better, more consistent snow and extensive groomed trail networks.

Snowmobilers do face two areas of potential shared-use conflicts:

- #1. Unauthorized use of their trails by ATV’s and trail bikes:
- #2. Incidental but growing x-c ski, dog sledding and dog ski-jouring use of their groomed trail. Issues include:
  - No “club” policing controls.
  - Do not contribute to trail maintenance.
  - Not involved in procuring landowner permission.
  - Often cause trail damage to winter grooming and trail erosion
  - Potential safety issues.

Light skiing use is generally tolerated, but dog-uses have much greater potential for contentious and safety conflicts. Of course, snowmobiling is not a problem-free activity. Speeding, drinking and trespassing are serious problems in many areas.

Unlike snowmobiles, problems caused by the use of ATV’s and trail bikes have increased proportionally to the strong growth in sales. Because of their 4-season capabilities, and other issues noted above, their conflicts and impacts can be both considerable and serious.

### **8.1.10 Indoor Sports & Recreation Facilities**

Given the nature of New England weather, many communities provide indoor space for outdoor sports (fall through spring). Expansion of the community center to include a gymnasium, or similar space is being recommended. However, the heavy program use of the community center, prevents use for out-of-season sports.

An air dome or similar structure is recommended to accommodate the need to weatherproof sports and recreation facilities, as well as to expand program opportunities. Typically, such structures can provide for a wide range of training, competition and rehabilitation activities such as basketball, softball, volleyball, soccer, tennis, badminton, playground space, indoor track for walking and jogging, etc.

Sometimes such facilities are privately owned. Community owned structures sometimes contract operations. Staffing usually is a combination of seasonal part-time help and one manager and one programmer. Coaches are paid from program fees and rehabilitation and fitness programs often are run by volunteers. Revenues come from group use, programs, individual memberships, events, competitions, out-of-town users, sponsors, food service, sports retail, etc.

#### **8.1.11 Outdoor Ball Courts**

Outdoor courts for basketball, tennis, and handball can provide affordable community recreation options for warmer weather seasons. They can be associated with sports fields, school grounds or specific neighborhoods.

For the most part they require little space and, with the exception of tennis, maintenance and capital costs are nominal.

#### **8.1.12 Playgrounds**

As with ball courts, siting is often appropriate at sports fields, schools, day care centers, select neighborhoods, etc. Indoor “playgrounds” can provide weatherproof play options.

Unlike ball courts, playgrounds have the singular advantage of being “portable”. They can be moved as neighborhood or town demographics change.

Well-designed playgrounds with high quality, safe equipment require minimal maintenance, no programming, but close monitoring. Unless extremely creative (and palatable), revenue options are nil. It is not unusual for capital funds to be raised through fund-raising, donations and sponsorships. Neighborhood groups or service organizations might provide maintenance and monitoring services.

#### **8.1.13 Tubing/Sliding**

Other than skiing, tubing and sledding are the most popular winter activity in most snow-belt zones. Currently, nearly all fee-based sliding areas are privately owned or run by concession. Numerous, free, un-groomed sliding hills are provided by municipalities. Their dependence on natural snow, sometimes inadequate hills, lack of grooming and surface lifts, limit operations dependability and revenue options. However, weather responsive food service, tube rentals, childcare, etc. can provide some income potential.

Whether formal sliding areas are private or community owned, user safety and mitigation of risks, must be priority concerns. Attendants should be trained in advanced first-aid and

be responsible to monitor and control use of the slope and user behavior. Regulations regarding slope use must be obvious and enforced.

Location of sliding hills is entirely site specific. Adequate run-outs and topography that allow for a variety of experiences is ideal, as is an orientation to the northeast ...especially when dependent on natural snow.

Newmarket's Tuttle Swamp/Grapevine Hill property has good sledding topography and is used casually by townspeople and by several recreation programs. Restrictions on the property, however, prohibit development of formal facilities.

Gravel pits can be excellent alternatives to consider development for a formal sliding hill. Snowmaking might be a possibility, a variety of orientations often are available and portable surface lifts, can be moved easily (or removed) if necessary. Contracting and leasing development and operations might be a viable alternative to town funding.

#### **8.1.14 Ice Skating**

Outdoor skating can be established on ponds or on temporary, plastic lined and flooded ice rinks. Maintenance generally is limited to occasional sprayed re-surfacing and snow removal. Temporary seasonal lighting, toilet facilities and food service may be provided. Temporary facilities can be developed in targeted areas such as sites where winterized restrooms already are located.

Permanent skating facilities are expensive but have substantial potential for generating revenue through admissions fees, memberships, group use, competitions, instruction and training. Most permanent facilities are privately owned and operated. Depending on their size and sophistication, capital and operations costs are can be comparable to that of indoor swimming pools or indoor sports structures.

Richmond Pond on Lang Lane would be an excellent skating area if an agreement could be forged. Currently, areas of the Lamprey and Piscassic rivers are used for skating, but they may be dangerous in places due to currents and ice shift that usually prevent adequate, safe, ice thickness.

#### **8.1.15 Archery & Gun Range**

Nationally and regionally, whether for competition, recreation or practice, shooting ranges have broad appeal. As with sliding, appropriate location and safe use must be a priority.

Since ranges can be designed for use by one or more weapons (i.e. archery, pistol, rifle, shotgun, etc.) they can appeal to a wide variety of age groups and interests. As such, these weapon choices also provide a variety of program opportunities.

Informal outdoor ranges, such as the one on the Newmarket side of the Wadleigh Falls Road gravel pit, require little or no expense to build, maintain or monitor, but are limited to stationary target practice.

Formal ranges, whether indoors or outside, can be designed for a *menu* of shooting activities, which expands their program potential. However, because of construction and operations costs, formal ranges are often built and operated as commercial businesses or as sportsmen club functions. Indoor ranges have the advantages of providing 4-season, weatherproof use.

Depending on the degree of sophistication, maintenance and operations costs can vary greatly, as can revenue generation.

Instruction and safety programs can be offered at either formal or informal sites and if range use is monitored and access is controlled, a use fee could be applied. Formal ranges have the greatest revenue potential through use fees, memberships, competitions and programs.

As with Newmarket's current archery program, instruction services can be contracted or offered by qualified individuals or groups such as town police, Fish & Game officers and sportsmen clubs. The stationary target archery area, adjacent to the community center, is basically adequate for the current level of contracted instruction programs.

In any case, due to the risks involved and varying demands, the Wadleigh pit should be improved, expanded or replaced so as to allow use controls through sign-ups or time-slots for individuals, groups and scheduled shooting programs. Or, it can continue to function as is and a separate semi-formal or formal shooting range(s) can be developed elsewhere.

Considering issues of safety and risk, some degree of monitoring and formal programming should be considered even for informal ranges on public property.

Facilities for tournament-level skeet and both woodland archery "trails" and stationary target facilities, can be used for various levels or training, practice and regional competitions. They do require several acres of appropriate terrain, some of which can be safely provided in gravel pit areas.

Revenue from competitions can be significant. Construction could be done by volunteer groups or service organizations.

#### **8.1.16 Beach**

Newmarket appears to have few options for a town beach. Fresh water beaches are popular throughout the country, even in towns on the ocean. The relative safety of fresh water beaches and preference for fresh water swimming appeals to many.

Capital expense for beach development can be substantial, depending on the size and character of the proposed site. Community responsibility for development of service facilities (i.e. picnic areas, parking, toilets, playgrounds, food service, etc.) is typical. Staffing, if any, is seasonal and could be contracted or assigned to volunteer groups or organizations.

Income options can come from parking fees, program fees and concessionaire fees and/or food services. Communities or volunteer groups often assume responsibility for lifeguard and swimming instruction.

### **8.1.17 Passive Recreation Areas**

Passive recreation can be defined as activities that require little activity or exertion. Picnic facilities are a primary example. Others recreation elements often associated with picnic facilities include:

- Pavilions.
- Open field play.
- Playgrounds.
- Pedestrian and/or cycling trails.
- Horseshoes; Frisbee; lawn badminton, volleyball, etc.

Location of such facilities are usually site specific and can be developed throughout the town, in targeted neighborhoods or areas easily accessed for tourists. Restrooms and playgrounds can be provided.

Usually, the only revenue options come from rental of pavilions and possible tournaments for horseshoes, Frisbee, etc. (The Leo Landroche field pavilion is scheduled for group use now, but fees are not charged.) Maintenance required can be as basic as field mowing and litter patrols or include maintenance of structures. Occasional monitor patrols should be provided as well.

## **8.2 Design & Maintenance Considerations for Support Facilities**

These recommendations illustrate key design elements and proactive maintenance actions to consider for enhancement or development projects. Many of these recommendations should be viewed in terms of *whenever* or *wherever* possible.

### **8.2.1 Parking**

Most existing facilities in Newmarket have significant parking issues. Inadequate capacity, absence of effective parking controls and maintenance, and a lack of design and signage uniformity should be addressed. Since parking lots make the first impression of a facility they should represent positively the caliber typical of Newmarket's recreation areas.

Some solutions include:

Paving & striping: maximize capacity; minimize maintenance...

Off-street parking: mitigates/minimizes neighborhood impacts...

Shade: most requested feature; priority for pets; preferred spaces...

Shading with hardwoods: summer shade/winter sun (helps melt snow and ice)...

Disabled spaces: 1:20; adjacent to accessible paths and services...

Snow storage areas: strategic; efficient clearing; maintains carrying capacity; ease of sanding and walkway clearing...

Curbs: granite; asphalt; fencing (i.e. wood rail defining lot edges)...

Orientation: southeast-south speeds snow melt/drying; reduces frequency of sanding...

Pollutant controls: porous paving bricks in parking spaces...protects vegetation; mitigates/filters petroleum and salt run-off...

Walkways: let foot traffic determine preferred routings before construction (unless obvious...

Newmarket must establish designated parking spaces that comply with the American with Disabilities Act. Accessible walks with access to toilets, concessions, designated spectator space, etc. also are required with any substantial upgrades or new construction.

### 8.2.2 Parking Lot Maintenance

Parking & walkway surfaces: snow removal; sanding; sweeping; leaf pick-up; sealing cracks; repairing curbs/fencing; re-striping; painting gates; grading, shimming, dust control, packing (if gravel)...

Islands/edges: mowing; grass treatments; tree and shrub care...

Trash: pick-up litter; empty trash receptacles as needed; dumpster for heavily used areas and events...

Lighting: maintain system...

### 8.2.3 Toilets

Toilets are the biggest maintenance headache at any recreation facility. They can easily make or break the quality of a recreation experience. In addition, they are expensive to build and maintain.

Use of portable toilets is often a viable solution, but accessible units need to be considered here as well. Placing portable toilets on concrete pads is strongly recommended. Pads can help keep them clean and anchor clamps secured in the pads can help prevent them from being tipped over.

Other than consistent, frequent maintenance, common sense toilet design is the best offense in preventing complaints and generating compliments. Proactive design is important for efficient, cost-effective maintenance and public satisfaction:

Ventilation: best to be *extraordinary*; powered and un-powered (i.e. screened windows; natural flow)...

Drainage: adequate for hose washing; drains as needed; easy drain cleaning...

Stalls: 2-3 times more for women, than men; one for disabled; 1 child urinal and sink...

Partitions: vandal resistant (inexpensive/replaceable; easy maintenance; anti-corrosion...

Accessibility: 1 stall, 1 sink, 1 low mirror (*minimum*); entrance ramp or on-grade; wheel chair platform for wheel chairs on both sides of door; 2-way door; with crash bar...

Floor: masonry tile; non-slip, drainable rubber tile; sealed concrete; entrance dirt grate.

Walls: easily washable...

Water: hot with temperature limiting valve; water limiting faucets...

Accessories: towels and air-dryers; coat hooks; mirror shelves; bench/chair(s); covered trash receptacles...

Electricity: ground-fault outlets; easy-to-replace light bulbs; caged light protectors...

Vandalism controls: window shutters; security system...

#### **8.2.4 Toilet Maintenance**

Pre & post season: preventative treatment for vermin; building repairs/improvements; charging/drainage of water system...

Weekly: clean/check ventilation system(s), windows and screens; repair significant vandalism; check locks, hinges, fixtures; other repairs...

Daily servicing: wash walls, floors, fixtures, windows; re-supply materials; vermin control (flies, spiders, mice, etc.)...

Multiple daily/spot checks: maintain cleanliness; re-supply as needed; empty trash...

Together, common sense toilet design, investment in durable materials, preventative maintenance and frequent cleaning and servicing are important for cost-effective performance. Most people leave clean places clean.

Given the cost of toilet construction and maintenance the use of portable toilets often is a viable alternative...sometimes the only one. However, they are not user-friendly for people with infants or young children. Moreover, however well maintained, aesthetics (inside and out) are always problematic. An outhouse is an outhouse...when its not in a house.

#### **8.2.5 Food Services**

Whether town or concession operated, food service facilities require substantial attention to maintenance and operations, as well as health code and OSHA compliance. Here again, common sense design, quality construction and proactive maintenance are key.

Seasonal food “stands” tend to be investment and operations conundrums. Usually, the cost-benefit ratio to a community (due to capital investment, liability issues, labor costs, etc.) is marginal even if there is substantial demand. However, whether break-even or profitable, they have the important benefit of providing jobs and worker training opportunities. Contracting often is considered when recreation budgets are strained. Potential profitability and concessionaire investment can be a net benefit to the community. Another advantage to food service operations (whether town or concession operated) is the consistent availability of on-site staff for providing visitor information, bussing eating areas, litter and trash patrols, maintaining restrooms and vandalism vigilance.

Many of the design features and maintenance actions suggested for toilets apply to food stands as well. Some design considerations *specific* to food stands include:

Safety: fire extinguishers; CO2 fire system (over cooking area); powered exhaust; grease traps; first-aid kit; hot water temperature limiting valve; radio and telephone...

Vermin: screens; vermin-proof storage cabinets, food containers, garbage containers; seasonal interior and exterior vermin treatments...

Trash: strategic trash receptacle locations; accessible recycling barrels/station; screened, gated dumpster location (consider concrete pad with drain)...

Health: stainless steel hoods/cooking counters; formica/steel serving counters; dishwasher; double sinks; adequate hot water; accessible water fountain and telephone...

Service windows: suggest two to minimize lines; vermin proof, disabled accessible, condiment containers...

Exits: minimum two; signed; outward swing; crash bars or springs...

Eating area: picnic tables (washable); some with accessible extensions...

### **8.2.6 Food Service Area Maintenance**

Food service areas include most of the same maintenance steps as do toilet facilities.

Other maintenance steps specific to food service include:

Pre & post season: testing water quality; preventative treatment for vermin; building repairs/improvements, particularly roofs, windows, and drainage; charging/drainage of water pipes...

Monthly: testing of water; exterior & interior vermin inspection...

Daily checks: health & safety devices; fix/replace as needed; screens; locks...

Daily cleaning: ventilation/exhaust system(s); grease traps; floors; walls; cooking and service counters; condiment area and containers; dishwasher; trash receptacles; windows; water fountains...

Refuse: as needed cleaning and emptying trash, garbage & recycling containers...

Clearly, the most important considerations in building and maintaining food service facilities are the safety and health of staff and customers. Here again, frequent, responsive attention to health and safety issues, including responsibilities for maintaining toilets and eating areas is importantly proactive. Of course, due to this range of duties personal hygiene must be a priority.

Food service employees often are the only on-site staff. Frequently they are asked for information about the recreation facilities, scheduled programs and events, and directions to visitor services. Brochures, maps and postings on near-by bulletin boards also can supply much of this information.

### **8.2.7 Facility Structures...General**

Several design and maintenance considerations are common to most recreation area structures. Durability, efficiency, aesthetics and security should be high priority objectives. A building should perform as expected and be a visual asset to the town and the neighborhood.

Considerations that help to satisfy these expectations include:

Vandalism Control:

- Security systems (cameras; lights; sirens; motion detectors; etc.)...
- Vandal resistant materials (recycled plastics are particularly tough & adaptable...
- Easily repaired or replaced materials and fixtures...
- Quick repair response to damage...
- Door and window shutters...
- Exterior lighting...
- Interior faucets for exterior and interior use...
- Gated access...
- Perimeter fencing...
- Posting for rewards; fines...
- Seasonal removal of select signs, bulletin boards, picnic tables... benches, bleachers, trash barrels...
- Seasonal removal of stored equipment...
- Neighborhood watch; civilian “police” patrols...
- School and community awareness programs...

Communications:

- Positive* signage...
- Entrance posting of allowable uses (explain reasons); opening/closing times...
- Anti-littering messages...
- School & community awareness programs...
- Roaming site host/hostesses...

Storage:

- In general, over design what you think you will need
- Space *designed* for materials used at each site...
- OSHA compliant shelving, cabinets, wall hangers, etc. (designed for equipment and materials specific to the site functions)...
- Bright, energy efficient lights for storage spaces...
- Adequate isles/access...
- Faucet(s), hose, fire extinguisher...
- Exterior grate area for washing equipment...
- Event/group use responsible for cleaning and storage...
- Central (town) storage and repair shop for out-of-season items...

General structural considerations:

- Build with “green” and fire-resistant materials...
- Use natural lighting where possible...
- Use low-energy lighting...
- Use natural and/or powered venting, as needed...

Many of Newmarket’s recreation service structures have some of the features listed above, but most structures need enhancement, replacement and development projects.

### 8.2.8 Structural Aesthetics

Structural aesthetics often suffer because it is considered to be superfluous and costly. It can also be the result of doing things “in house”, by staff who are not trained or skilled in these tasks. Attention to structural aesthetics can help create a sense of ownership pride among taxpayers, as well as staff, volunteers and recreation participants. This builds awareness and support for protecting and maintaining facilities as well as adequate budgets that, in turn, supports professional design and quality construction.

Finally, lack of a consistent architectural theme, colors, materials, etc. common to all town recreation facilities and signs, is unfortunate. Logos, signs and architecture should convey Newmarket’s commitment to quality facilities, resident services and community pride. These common threads should make an aesthetic, professional, signature impression, that says ... “Newmarket is special. A good place to live. A great place to visit. An exceptional place to do business...”

### 8.3 Projected Operations & Maintenance Costs & Revenues

The nature of *projected* costs and revenues are best presented as being conservative.

Projections listed below assume expenses and revenue for complete build-out of the master plan vision. They do not reflect phased increases in revenue and expenses.

In general, to support the operations and maintenance of recommended facilities, additional equipment and materials needed should be roughly proportional to the percent increase in sports fields, facility improvements, plus the addition of any new facilities. The resulting increase in programming and event opportunities will require staff time and revenue growth that may exceed this ratio

Even though enhancements to existing facilities such as sports fields (i.e. irrigation; drainage; turf; parking; lighting; expanded storage; etc.), should reduce or eliminate some maintenance issues, these improvements are unlikely to reduce the maintenance and expenses required. For example, mowing and marking of sports fields will be more frequent and irrigation and lighting systems will add to maintenance workloads and costs.

Although the DPW is responsible for maintenance, repairs, improvements, etc., it is not expected to need additional full-time staff. Since most maintenance needs are summer-related, additional part-time labor may suffice. There *will* be some increased expenses for equipment and supplies.

Here, again, the increased costs should be roughly proportional to the increase in facilities, although the purchase of supplies in greater bulk may provide some savings.

### 8.3.1 Staffing Options

Given the extensive programming and scheduling for which the recreation staff now is responsible, it is hard to imagine them handling much more additional work without some augmentation of staff and expenses.

As with most other town recreation departments, Newmarket augments it's full-time staff, with seasonal/part-time and volunteer labor.

#### Seasonal/Part-Time Labor

Seasonal labor is important to a recreation management operation. Part-timers augment and relieve primary staff. This facilitates scheduling of longer activity days and 7-day operations.

Along with contracting services, seasonal staff help to minimize or avoid the need for additional full-time staff. The lower costs for seasonal workers is a budget advantage.

There are other advantages to the Town as well:

- part-time work for residents (all ages)
- training and skills development
- potential internships
- higher, direct participation of residents in community
- ambassadors for program/activity sign-ups, community pride, constructive behavior.

#### Volunteers

Volunteers can add another important level of operations and maintenance services. They provide the town with many of the advantages of seasonal employees, but at even less cost.

Some issues and concerns with use of volunteers include:

- adequate training
- can't give orders
- difficult to criticize; easy to hurt feelings
- sometimes difficult to schedule
- potential age conflicts
- liability

There are a number of ways to mitigate these potential problems:

- keep primary staff involved from beginning; responsible for group management
- schedule full orientation and training prior to initiating tasks
- provide training that is advantageous to them (i.e. first-aid; skill training; activity specific instruction {both specialists and generalist}; etc.).
- clear guidance regarding responsibilities, objectives, performance, etc.

- frequent meetings (venting; suggestions; reports, praise, etc.)
- other benefits (program discounts; uniforms; seasonal *thank you's* , awards and gifts; community recognition; etc.)
- modest stipend
- solicit feedback and assessment during and after completion

One area of volunteerism that Newmarket has not yet pursued is to involve volunteers in patrolling and maintenance of town recreation facilities as well as acting as roaming hosts and hostesses at facilities, along trails and throughout the down town area. This could involve establishment of *community watch* patrols, a police cadet program, a trails patrol, a *road ranger* patrol, etc.

The value of volunteers in assisting both full-time and seasonal staff at major events and competitions can be invaluable.

**8.3.2 Existing & Projected Recreation Department Staffing, costs**

The current staff hierarchy is illustrated below:



Current (04/05), staffing and estimated maintenance costs for the Recreation Department are shown below. Since maintenance expenses are spread through several categories in the town’s budget figures listed are estimated.

<u>Category</u>	<u>Winter Staff</u>	<u>Winter Budget</u>	<u>Summer Staff</u>	<u>Summer Budget</u>
Full-time:	# 4	\$ 59,384	#4	\$ 59,384
Part-time:	#17	\$ 34,800	#44	\$ 67,000
<u>Volunteers:</u>	<u>#20</u>	<u>\$ -----</u>	<u>#20</u>	<u>\$ -----</u>
Seasonal Totals:	----	\$ 94,184	----	\$126,384

**Total 04/05 Budgeted Staffing Costs: \$220,568**

**8.3.3 Approximate 04/05 Maintenance Costs (Buildings , Facilities Infrastructure)**

The following figures represent estimated portions of Recreation Department estimates taken from the town’s 04/05 *Buildings and Grounds* Budget line items.

Electricity.....	\$ 4,000
Park Maintenance (includes structures).....	\$ 4,000
Recreation Center Maintenance .....	\$ 6,000
Supplies.....	\$ 2,000
DPW Salaries.....	\$ 4,000
<b>Total 04/05 Estimated Maintenance Costs:</b>	<b>\$ 20,000</b>
<b>Total 04/05 Staffing &amp; Maintenance Costs:</b>	<b><u>\$220,568</u></b>
<b>Total Estimated 04/05 Operations &amp; Maintenance Costs:</b>	<b><u>\$240,568</u></b>

**8.3.4 Projected Operations & Maintenance Costs for Initiation of Master Plan**

Based on master plan projections the addition of a full-time gym attendant and his/her supporting seasonal and volunteer staff is assumed. Modest increases in seasonal and volunteer staff are also anticipated for assistance to other personnel positions. A projected structure and associated maintenance and operations costs are detailed below:



Assuming these additional staff positions, a projected personnel budget is illustrated below. (Note that development timelines, annual budgets, operational changes, extent of new programs and revenue sources, inflation, etc. can have dramatic influence on these estimates.)

**Projected Staffing Costs:**

<u>Category</u>	<u>Winter Staff</u>	<u>Winter Budget</u>	<u>Summer Staff</u>	<u>Summer Budget</u>
Full-time:	#6	\$106,045	#6	\$106,045
Part-time:	#25	\$ 50,800	# 50	\$105,800
<u>Volunteers:</u>	<u>#30</u>	<u>\$ -----</u>	<u>#30</u>	<u>\$ -----</u>
Seasonal Totals:		\$156,845		\$211,845

*Total Projected Future Staffing Costs:* \$368,690

\*Projected Maintenance Costs: (Buildings , Facilities Infrastructure):

Electricity (04/05 = \$4,000).....	\$16,000
Park Maintenance (04/05 = \$4,000).....	\$16,000
Recreation Center Maintenance (04/05 = \$6,000).....	\$ 6,000
Supplies (04/05 = \$2,000).....	\$ 8,000
Salaries (04/05 = \$4,000).....	\$ 4,000
<b>Total Projected Maintenance Costs:</b>	<b>\$ 50,000</b>
<b>Total Projected Staffing Costs</b>	<b>\$368,690</b>
<b>Total Projected Rec. Department Ops. &amp; Main. Costs:</b>	<b>\$418,690</b>

\* Projected costs for electricity and park maintenance assume increases due to added irrigation, night lighting and increased number of facilities as do increases in supplies and maintenance (DPW) salaries. Increase in Community Center maintenance assumes addition of the gym and aging of the building.

**8.3.5 Revenue Projections**

Following, details revenue for 04/05 and anticipated increase in revenue upon completion of the master plan build-out.

<u>Category</u>	<u>Revenue 03/04</u>	<u>Projected Revenue</u>
Sports Fields	\$ 5,200	\$ 15,000
Programs	\$ 10,606	\$ 35,000
Special Events	\$ 5,600	\$ 15,000
Trips	\$ 66,000	\$100,000
Sponsorships	\$ 20,000	\$ 40,000
Camps	\$ 66,900	\$ 80,000
Concessions*	\$ 0	\$ ??
Grants	\$ <u>35,000</u>	<u>\$150,000</u>
 <u>Annual Revenue Totals:</u>	 <u>\$209,306</u>	 <u>\$435,000</u>

\*Revenue from concessions has not been included since development of they may be operated by either the town or contracted services.

**8.3.6 Contracted Services**

A number of opportunities to contract services are available to the town as well. Some contracted areas could include program packages, food service, facility maintenance, tree and landscape services, etc.

Advantages of contracted services include:

- Free-up permanent tasks for major projects.
- Potential to reduce operations and maintenance and training costs.

- Potential to generate some revenue.
- Provides additional staff to help monitor facilities.
- May reduce liability risks

Of course, in contracting services the decision has to be made as to whether the cost savings versus revenue reduction provides the town with a net advantage. Another typical issue is whether a low bid should always be the contract winner.

If town facilities are well-designed, well-built and well-maintained, the cost(s) of business for a contractor (and the town) should be minimal.

We recommend consideration and/or test-driving of some contract operations.

Categories for other revenue options for the town could include:

- non-resident recreation area parking stickers
- outdoor theater; concerts
- out-of-town user fees of facilities
- sports field and facilities rentals from other towns and/or out-of-town organizations
- fund-raising events; contests; raffles; etc.

(Note that the estimated doubling of revenue should come close to offsetting the cost of projected staffing.)

### **8.3.7 Sponsorships & Donors**

Sponsorships can be another source of revenue or they can provide labor-in-kind or both. Having a menu of supporting options and/or goals is always helpful in procuring sponsors.

Donors, too, often come forth through similar options. But it is especially important for donors to have very specific goals, features, events, scholarships or items (i.e. benches, sports fields, pavilions, pool, etc.) to support or provide.

### **8.3.8 Grants**

Grants are never free but always sought. Usually, they are time consuming to prepare, difficult to get and often are better referred to a specialist for writing. Parameters for use of grant money can also be very narrow/focussed.

Examples of grant areas for Newmarket to consider:

- Trails grants through New Hampshire's Trails Bureau.
- Office of State Planning (variety).
- Federal & NH grants (sidewalks; bike lanes; trail bridges; sidewalks on bridges; highway tunnels and overpasses; etc.)

Typically, agency grants are highly favored when applications are made with adjoining towns for connecting facilities such as trails or bridges. The more towns involved in an application the greater the chances of success and substantial size grant size.

Similarly, applications that demonstrate multiple benefits to communities such as serving multiple uses, a wide range of age groups, improved recreation safety and user appeal, economic enhancements, potential regional value, etc... typically have a very high degree of success, as well.

#### **8.4 Conclusion Statement**

Revenues projected as a result of recommended enhancements to existing facilities and the addition of new facilities is considered to be conservative. It should also be understood that cost and revenue projections are based on 04/05 dollars.

On first glance it may seem the master plan recommendations should greatly increase the needs for staffing and maintenance work, but projections show only modest increases.

For the most part, operations for enhanced and/or additional facilities will require little more staff time for additional programming, much of which may be provided by part-time or seasonal staff. Economies in sports field maintenance, for example, will result from improved turf and irrigation. And, additional fields, will provide the opportunity to rotate fields for rejuvenation periods, eliminating much of the need for costly and minimally effective, in-season rejuvenation.

Lighting of appropriate fields, improved parking capacities and expanded services will allow for additional scheduling, providing more service to community groups and spectators. These improvements can also increase revenue by resulting in capacities that can make fields available for rental uses, tournaments, etc. Other revenue potentials could result from expanded and/or contracted food service, increased opportunities for sponsorships, more events, etc.

Similarly, new and improved facilities provide potential for more and larger grants and donations that can help to offset capital costs.

Finally, as implementation of the master plan results in better and more parks and recreation facilities, the community will evolve greater appeal for businesses, tourists and elderly...all of which will enrich the town both socially and economically. There are few investments that have such potential.

**Appendix A: Disabled Access Standards for Trails**

<u>Access Routes:</u>	<u>Easier</u>	<u>Moderate</u>	<u>Difficult</u>
Running grade (max)	5 percent	8 percent	10 percent
Max grade allowed: for max distance of	8 percent 10 ft	12 percent 30 ft	14 percent 30 ft
Running cross slope (max)	3 percent	5 percent	8 percent
Max cross slope allowed: for max distance of	5 percent 10 ft	8 percent 30 ft	12 percent 30 ft
Obstacle height (max)	1/2 inch	1 inch	2 inch
Surface	firm, stable	firm, stable	firm, stable
Running width	60 inches	48 inches	36 inches
Clear width (min)	36 inches	32 inches	28 inches
Passing space int. (max)	200 ft	300 ft	400 ft
Rest area int. (max)	400 ft	900 ft	1200 ft
<u>Recreation Trails:</u>	<u>Easier</u>	<u>Moderate</u>	<u>Difficult</u>
Running grade (max)	8 percent	10 percent	14 percent
Max grade allowed: for max distance of	14 percent 10 ft	14 percent 30 ft	20 percent 30 ft
Running cross slope (max)	5 percent	8 percent	12 percent
Max cross slope allowed: for a max distance of	12 percent 10 ft	12 percent 30 ft	16 percent 30 ft
Obstacle height (max)	1 inch	2 inch	4 inch
Surface	firm, stable	firm, stable	firm, stable
Clear width (min)	48 inches	36 inches	28 inches
Passing space int. (max)	200 ft	300 ft	400 ft
Rest area int. (max)	400 ft	900 ft	1200 ft

Trail and access route design guidelines recommended by Beneficial Designs

## **Appendix B: Recreation Trends**

Recreation fulfills an important function in life. Societies organize themselves around recreation and festive events almost as much as they do family relationships, work and habitation. Probably no society has as much variety and opportunity for recreation as we have today in America. From their earliest age children learn through play. Formal and informal group play is an important means for children to socialize and learn life values.

Such activities continue through life, especially for youth and young adults. Recreation is becoming more important in the lives of older people as living beyond retirement becomes longer and more comfortable. As an introduction to the role of recreation in Newmarket, this chapter addresses national and local recreation trends. Based upon that background, this report analyzes the specific conditions in Newmarket and the expectations that residents have for recreation opportunities.

### **2.1 National and General Trends and Observations**

Several national organizations undertake surveys for commercial and policy development purposes. These surveys are conducted regularly to help frame recreational demand in the United States. The results can be sifted to glean useful results for planning purposes. These studies help particularly to identify broad trends and to understand public attitudes. Disparities among studies result primarily from timing and different sampling methods.

#### *Newmarket*

*Although none of these results relate specifically to Newmarket, they provide a snapshot of trends to which Newmarket can compare its existing recreation structure and apparent local trends. Taking into account Newmarket's location, regional relationships, and demographics, these comparisons will help identify future recreation trends and likely priorities for the town.*

The surveys analyzed below are:

- Roper-Starch Survey
- National Survey on Recreation and the Environment
- National Survey on Fishing, Hunting and Wildlife Associated Recreation
- New Hampshire State Comprehensive Recreation Needs Assessment Survey
- Leisure Trends Group Survey

The following section provides a summary of nationwide statistics, and is presented to set a foundation for statewide and local information and data.

### **2.2 Roper-Starch Survey**

Since 1994, *Roper-Starch Inc.* has conducted an annual national survey on recreation. Comparisons are made in four-year increments. These provide a more valid trend analysis than year-to-year comparisons. The 2000 survey measured participation levels

for outdoor recreation activities, assessed attitudes about outdoor recreation, and explored outdoor recreation’s relationship to current issues of concern and the environment.

- 66% of Americans engage in some type of outdoor recreation at least several times during an average month
- 78% engage in some type of outdoor recreation activity at least once a month.

Participation in outdoor recreation seems to be increasing, both in terms of the number of participants and in how frequently they participate.

- 34% of Americans participated in outdoor recreation at least several times a week in 2000; 20 % in 1998; 15 % in 1994.
- 78% of Americans participated in outdoor recreation at least once a month in 2000; 50% in 1994.

Growth in these trends appears consistent across age groups. Comparing monthly participation from 1998 to 2000 all age groupings reported higher participation rates.

- 18-29 year olds increased from 77% to 86%.
- 30-44 year olds increased from 73% to 86%.
- 60 + year olds increased from 48% to 62%.

**2.3 National Survey on Recreation and the Environment**

This study has been conducted periodically over the last 40 years, from the 1960s to 2001. In 1994, almost 95% of Americans had participated in at least one of the surveyed activities.

The most popular activities include walking, visiting a beach or other waterside, gathering outdoors with family and friends, and sightseeing. The popularity of these activities can be attributed to the fact that all are relatively low cost, do not require specialized equipment or settings and participation can be close to home.

<u>Comparison of 16 Activities:</u>	<u>1994</u>	<u>2000</u>
• Walking for Exercise/Pleasure	66.7%	83.3%
• Swimming (lake, river, ocean)	39.0%	42.1%
• View, identify, photograph, other wildlife	31.2%	44.7%
• Bicycling	28.7%	39.0%
• Day Hiking	23.9%	33.2%
• View, identify, photograph birds	27.0%	32.5%
• Fishing (freshwater)	24.4%	29.4%
• Camp at developed sites	20.7%	26.2%
• Motor-boating	23.4%	24.6%
• Outdoor Team Sport	26.4%	22.9%
• Drive off Road for recreation	13.9%	17.5%

• Camp at Primitive Site	14.0%	15.9%
• Hunting	9.3%	11.4%
• Horseback Riding	7.1%	9.8%
• Downhill skiing	8.4%	8.5%
• Snowmobiling	3.6%	5.6%

#### Newmarket

*It appears that most of the activities that increased by at least 5% have a significant presence in Newmarket.*

## **2.4 2001 National Survey on Fishing, Hunting and Wildlife-Associated Recreation**

The 2001 National Survey on Fishing, Hunting and Wildlife-Associated Recreation provides national and statewide level data for several wildlife-related activities. A final report for New Hampshire was projected for 2003. These national and statewide surveys provide data about New Hampshire residents, as well as data about the state itself.

### **2.4.1 Participation Rates:**

- 53 percent of New Hampshire residents, 16 years or older, hunt, fish, and/or watch wildlife.
- 47 percent of all residents watch wildlife (observing, feeding, and/or photographing).
- 18 percent either fish or hunt.

### **2.4.2 Fishing Data**

- 267,000 anglers in 2001
- Average angler fished 12 days a year and spent an average of \$618 a year.
- 3.2 million days spent fishing generated \$165 million/year to the economy.
- 55 percent of all NH anglers are residents; 45 percent are non-residents.
- 81 percent of days spent fishing are by residents.

#### Newmarket

*Fishing access does not seem in balance given the town's extensive, river and stream network. Safe fishing access for the disabled and youth populations is especially in short supply*

### **2.4.3 Hunting Data**

- 78,000 hunters, both resident and non-resident, in 2001.
- Combined, in-state and out-of-state hunters participated in 1.46 million days of hunting.
- They spent over \$71 million in hunting related expenses in state.
- About 67 percent of all hunters who hunt in New Hampshire are state residents.
- Approximately 18,000, or 33 percent of total, are non-resident hunters.
- However, non-residents accounted for only 22 percent of all hunting days in New Hampshire in 2001.
- The average participant hunted 18.7 days.

Newmarket

*For a town in the most populated region of the state, Newmarket has an enviable portion of land committed to open space. Although increasingly limited by residential growth hunting opportunities will continue to exist in Newmarket.*

**2.4.4 Wildlife Watching Data**

- New Hampshire saw a total of 766,000 participants in wildlife watching activities in 2001.
- Non-residential participation in wildlife watching, defined as at least one mile or more from home, consisted of 425,000 participants. Of this “non-residential” grouping, 105,000 were state residents and 320,000 were from out-of-state.
- Residential participation, defined as being less than one mile away from home, consisted of 445,000 participants.
- Wildlife watching contributed nearly \$343 million in expenditures in New Hampshire.

Newmarket

*Again, Newmarket’s open space and diversity of ecologic edge should sustain plentiful opportunity for growth in wildlife watching. Also, a town committed to preservation of open space is, typically, inclined toward non-consumptive wildlife related recreation.*

**2.5 Statewide Outdoor Recreation Plan Needs Assessment**

Since the last New Hampshire SCORP (*Statewide Comprehensive Outdoor Recreation Plan*) Needs Assessment was completed in 1994, two outdoor recreation-directed public opinion surveys were undertaken. Both were conducted through the University of New Hampshire (UNH) and provide more detailed figures on participation than had been previously available in the state.

The latest study, 1997 *Statewide Outdoor Recreation Needs Assessment*, completed by UNH for the Office of State Planning, consisted of a statewide assessment of recreation in New Hampshire. This assessment provides a snapshot of household participation and frequency of participation for the following recreational activities. These results provide important baseline data for preparation of the next SCORP report, scheduled for 2008.

<u>Activity</u>	<u>Households</u>	<u>1-6 Times</u>	<u>7+ Times</u>
Wildlife Observation	85%	35%	50%
Driving for Pleasure	84%	32%	52%
Sight-seeing	84%	45%	39%
Jogging/Running/Walking	79%	17%	62%
Day Hiking	73%	48%	25%

Stream/Lake Swimming	71%	37%	34%
Picnicking	68%	49%	19%
Photography	64%	37%	27%
Ocean Swimming	58%	40%	18%
Bicycling	55%	29%	26%
Outdoor Pool Swimming	54%	26%	28%
Freshwater Fishing	50%	23%	27%
Nature Study	47%	33%	14%
Canoeing/kayaking/rowing	45%	33%	12%
Motor-boating	43%	23%	20%
Playing on playgrounds	40%	20%	20%
Tennis/Volleyball/Golf	37%	16%	21%
Baseball/basketball/soccer	36%	14%	22%
Downhill Skiing	35%	17%	18%
Camping/National Forest	33%	30%	3%
Camping/State Parks	31%	26%	5%
Cross-country skiing	31%	20%	11%
Backpacking	29%	24%	5%
Camp/Private Campground	28%	21%	7%
Mountain biking	27%	15%	12%
Large Game Hunting	25%	10%	15%
Off-road Vehicle Driving	21%	13%	8%
Snowshoeing	20%	13%	7%
Snowmobiling	19%	9%	10%
ATV	17%	6%	11%
Bird Hunting	17%	9%	8%
Water-skiing	17%	11%	6%
Horseback Riding	15%	10%	5%
Sailing	14%	10%	4%
Sea Kayaking	4%	3%	1%

### Newmarket

*With the likely exception of field sports, there appears to be little reason to assume that trends in Newmarket will differ much from these listings. As with other surveys these data appear to corroborate the popularity of recreation activities that require little investment in equipment.*

*Fresh water swimming facilities (beach or pool), despite their popularity, are absent in Newmarket. There are no convenient fresh water options or facilities suitable for weatherproof recreation, instruction, training and sports.*

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