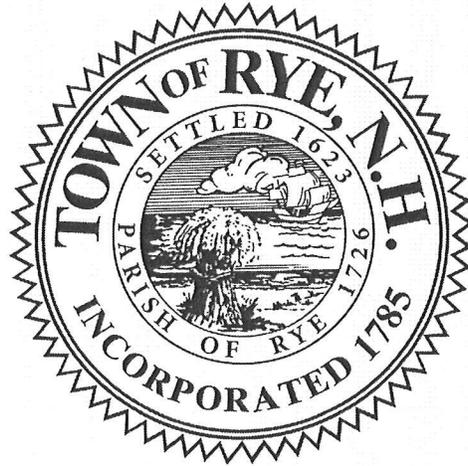


# Rye, New Hampshire



## 2006 Master Plan Amended 2009 Amended 2013

Adopted on: May 8, 2007

Amended on: November 10, 2009

Amended on: March 4, 2014



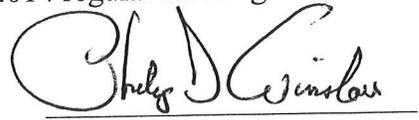
# RYE PLANNING BOARD

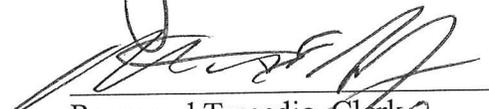
10 Central Road, Rye New Hampshire 03870 603-964-9800

## Certification of Adoption of Master Plan

The Rye Planning Board hereby certifies that the 2014 Rye, N.H. Master Plan was duly adopted on by vote of the planning board at its March 4, 2014 regular meeting.

  
William Epperson, Chair

  
Phillip Winslow, Vice-Chair

  
Raymond Tweedie, Clerk

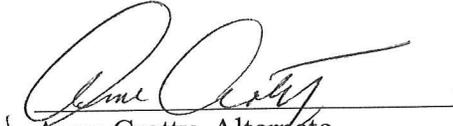
  
Priscilla Jenness, Selectmen's Rep

  
Jerry Gittlein

  
Melvin Low

  
Keri Roman, Alternate

  
Jeffrey Quinn, Alternate

  
Anne Crotty, Alternate

  
J. M. Lord, Alternate



# RYE PLANNING BOARD

*Town of Rye, N.H.*

**Master Plan**

Revised March 4, 2014

**The Rye Planning Board**

William Epperson, Chairman

Priscilla Jenness, Selectmen's Rep

Phil Winslow, Vice-chairman

Raymond Tweedie, Clerk

Jerry Gittelin

Melvin R. Low

Keri Roman, Alternate

Jeffrey Quinn, Alternate

Anne Crotty, Alternate

J.M. Lord, Alternate

Michael Donovan, Esquire Consultant

Kimberly M. Reed, Planning & Zoning Administrator

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# INTRODUCTION

## IN PROCESS BY LRP

### PURPOSE AND ASSUMPTION

- A statement of the way the Town should operate:
  - What organizational structure is established to administer:
    - Elections of Boards, Officials, Committees, Subcommittees and their purpose
    - Authorities of these Boards and Officials at least a reference that there are regulations and where they can be found.
    - Responsibilities of these Boards and Officials to administer.
  - What guiding principals and attitudes the administration is to exhibit
    - Protection of land, life and owners rights
    - Ensuring compliance with State and Federal laws
    - Balancing defendable positions on competing issues where good for the majority of residents is followed.
    - Maintaining reasonable taxes along with reasonable services
  - The expected result:
    - Fair treatment with unbiased loyalty to residents.
    - Maintain standard of services consistent with voter approvals
    - Reasonable tax rates coming from well managed operations.
- A vision of the future and steps the administration might take to get there:
  - Land use is a big part of the vision – what will it look like in 20 years.
  - Lifestyle vision should recognize all ages, economic strata and valued activities:
    - Full time residents
    - Part time residents with ownership interests
    - Tourism and the economic value it brings to New Hampshire
  - Protection of land's best use and related values.
  - An economically viable

### WHAT IS NOT INCLUDED

- The Master Plan should withstand time and change. It is a living document that sets the vision for the town at an overview level. For this reason, specifics such as zoning, targets and references to laws and other specifics are not addressed in this master plan.

## AN INVITATION TO COMMUNITY PLANNING IN RYE

In 1935 the State of New Hampshire authorized local governing bodies to undertake planning for their jurisdictions. The legislature charged communities to prepare master plans. Planning boards were to elicit community comments to formulate guidelines for municipal growth.

This document, the Town of Rye's 2006 Master Plan, is an update of Rye's 1998 Master Plan, and fulfills part of the State's requirements. It is the product of multiple sources of input as to what we as a community choose for our self-governing future. It synthesizes our wishes as expressed through:

- The 2002 Rye Opinion Survey;
- Community interest groups that met to evaluate planning options;
- Three public visioning sessions held in 2004 and 2005;
- Multiple meetings of the Planning Board's Long Range Planning Committee;
- Research and expertise provided by members of the Rockingham Planning Commission;
- Interviews with Rye elected officials; and
- Review of warrant article election results since the last master plan was enacted.

Under law this Plan will guide our seven-member Planning Board and our five-member Board of Adjustment (the BOA) in their deliberations to decide what development proposals will be approved as consistent with the visions we have for our community. It has also been specifically crafted to provide a broader vision to guide the many other civic organizations and decisions in town working toward our unified goals.

The adoption of this document by the Planning Board after public hearings will guide and govern decisions made by the Planning Board and the Board of Adjustment (the BOA). As such it is important that we, as citizens, understand the ongoing planning mechanism that shapes our visible community.

Rye has several land use boards: the Planning Board, the Long Range Planning Committee, the Zoning Board of Adjustment, the Conservation Commission, the Historic District Commission, and the Open Space Committee. All Boards are comprised of volunteers. They represent our neighbors and community members who have a cross-section of jobs and contribute their "spare time" to define the laws and to help shape our town of tomorrow.

In addition to state and federal laws (such as environmental regulations), Planning Board Members follow the Rye Zoning Ordinances. These are our laws passed by the Town according to local priorities. These ordinances outline what is allowed in terms of types of buildings and uses in various zoning districts, and are, or will be, through the appropriate change process, in compliance with all applicable State laws regarding land use.

The Rye Land Development Regulations outline the town-specific processes that potential builders comply with to modify portions of our community through approved construction.

With guidance from our Zoning and Planning Administrator, Town Counsel, and volunteer Town committees; Planning and Zoning Board members discuss lot sizes, building heights and densities, street widths, septic systems, open space, agricultural uses, “special exceptions,” etc. in making decisions about what construction to allow. The decisions are legally binding upon the Town and the developer, entrepreneur or homeowner with whom they are working. They also discuss and propose zoning ordinances to keep Rye current with new regulations, changing demographics, and other needs that come with time.

It is an important job for a small group of volunteers. Their decisions help shape the town that we call Home. There are many details in plans and specifications that together change the face of Rye.

The intent of this document is to invite the reader into the process of Community Planning. Civic engagement, a right and a responsibility for each of us, is largely the product of volunteer on-the-job training. Few of us know the ropes before we start. Interest and willingness are the vital ingredients.

There is no singular “they” that is shaping our town. This document reflects input for Rye’s vision through participation in Rye’s planning process from diverse venues.

We thank those who wrote, spoke and participated in the development of this plan, whether once or through ongoing memberships in town groups. Committees, Commissions and Boards in town could use additional help in our ongoing process of becoming the Rye we envision.

This is work that requires wisdom and heart in addition to facts and laws. We would like to welcome YOU to planning Rye’s future.



## CHAPTER 1 – OUR VISION FOR RYE

While the Master Plan does not apply to Rye Beach Precinct, our vision for Rye will continue to be characterized by respect for our neighbors, the common good, and the natural environment. Our land use policies will be fair, supporting balances of choice, convenience, safety, security, conservation, a sense of community, and in compliance with all applicable State Land Use laws. Our reward will be a strong town in a beautiful place, comprised of an active, empowered citizenry working for the well-being of the community.

Our desires to see Rye altered are few. It is our intent to make changes deliberately to adapt to the dynamic needs of our citizens and respect the rights of others with interests in our community.

Our vision for Rye's limited beach resources is to insure that all citizens will enjoy unencumbered access to all Town beaches and Rye Harbor. We will discourage any activities or organizations that would have the effect of making the beaches/harbor or access to them exclusive to any portion of the population of Rye or the surrounding towns.

Rye has a rich and diverse heritage. From the earliest beginnings on our shores and nearby islands to the more recent artifacts created by World Wars, unique and valuable items have been left behind. These are cherished by the citizens of Rye and we will collect, catalogue, and preserve these items in Rye whenever such items are recovered regardless of the collecting body.

Our vision for Rye Town Center recognizes it as the foundation upon which the Town has grown. We will protect, preserve, and reinforce its character and integrity. There will be a palpable sense of community for residents as well as visitors. Many of the components of that vibrant town center are in place: Town Hall, library, safety building, school, a traditional New England church, veterans' memorial, cemetery, and historic district. We will promote additional opportunities to foster regular and multiple social interactions for all members of the community to include but not limited to: pedestrian paths, bikeways, and traffic-calming and mitigating features along town roads within and leading to the Town Center. We envision pocket parks and gardens for all to enjoy and a few apartments built over small retail establishments. The additions of a cafe and general store in our Town Center will increase our opportunities to foster a sense of community. This will be unified by human-scale density and architectural style honoring the historic buildings and character of much that already exists.

We will endeavor to create a viable communications environment by offering a free internet "hot spot" when and if the above additions to the Town Center are realized. Additionally we will strive to have all of Rye accessible by cell phone service. We will endeavor to create an atmosphere that will allow the commercial development of land to the west of Route 1. The absence of sewers has been a major impediment to development especially along the Route 1 corridor. We will work with the Sewer Commission to see if it is viable to extend the public sewer lines from Portsmouth to that area.

Our intent to foster a sense of community is consistent with enhancing a range of housing options for a diverse population. Our zoning ordinance should increase options for affordability, simplicity of transportation, conservation of Rye's natural resources and housing opportunities for work force and seniors in Town, and continued compliance with state laws while maintaining Rye's semi-rural character and respecting responsible and reasonable growth.

Our vision for Rye does not require major changes to our transportation infrastructure. Our roads are adequate and well located for the area but are heavily used and require continued maintenance. The modifications they require – traffic calming, shoulder widening, intersection control – will improve their safety and increase usage by pedestrians and cyclists. Our support of shared transportation options – park-and-ride usage, ridesharing, a bus route serving Rye needs – will require promotion and education. This will be supported by our involvement in ongoing regional transportation efforts.

The parameters of this vision extend to all members of our community, not just developers. Education will be important to our success. All will contribute to increasing our recycling of materials accepted at the Town's Recycling Facility. Together we will continue to educate citizens about the need to minimize potentially hazardous chemical usage.

We will recognize that everyday compounds such as lawn treatments, garden fertilizers and snow melt products are beneficial only if used sparingly. Using such compounds within the aquifer protection zone will be limited. By limiting these compounds we can further insure the integrity of the Town wells for present and future generations. Beyond that, we become polluters of our own waters. When we add to our houses, expand our driveways or build sheds, we increase the Town's impervious surfaces burden. Each addition further minimizes the opportunity for water to infiltrate, be naturally cleansed and recharge our aquifers. Impervious surfaces limit natural water cleansing and can potentially cause flooding.

Having committed ourselves to preserving our natural resources to the maximum extent possible, we will have to learn to manage the nuisance species of plant life and wildlife that have increasingly enjoyed their safeguarded habitats. We will protect the value of Rye's uniqueness for native plants and animals. Where necessary, such as in our salt marshes, we will improve habitats.

We will do all of these things through formal and informal organizational structures. We know that Rye is rich in the amount of time that our volunteers give to the community in a myriad of ways. Our vision for Rye reinforces the bonds that form through that work, reinforcing the work of our town's employees and elected officials. Expanded dissemination of information will create a more seamless network of communications. In addition to the above, we will continue to work to foster expanded transparency in town Government by providing easy access to town, board and commission meetings, meeting agendas and meeting minutes. We will actively encourage Rye residents to participate as board, commission and committee members where they can add their skills in addressing the challenges that we face today and in the future.

The sense of community in our schools will expand throughout the community. Our children strengthen the Town's identity through their academic accomplishments and extracurricular activities such as sports, scouting and volunteer activities. They will learn about their roles as future leaders by being involved in matters of importance within our community. School budgets will be increasingly recognized as an important part of local government.

We will support this vision by working together. We will support it by pursuing outside sources of funding for the improvements we require. We will support our vision by continuous re-assessment of what we have accomplished. This evaluation will assure that we are accomplishing that which is necessary to get where we want to go. We will protect our semi-rural and coastal character by protecting our open space, coastal and wetland resources by managing growth.

## CHAPTER 2 – DEMOGRAPHICS

### 2.1 INTRODUCTION

Although Rye Beach has its own Master Plan, Planning Board and Zoning Board of Adjustment, Chapter 2 Demographics pertains to the entire Town. According to the 2010 US Census, the Town of Rye had a population of 5,298, which reflected a growth rate of approximately 2.2% from 2000. The previous decade saw a growth of about 9%. The population of our town stayed near 1,000 for more than 100 years prior to the post WWII baby-boom era. The population grew rapidly during the 1940's, 50's and 60's, largely as a result of the growth of the Portsmouth Naval Shipyard and later Pease Air Force Base. While the closing of Pease Air Force Base and the downsizing of the Portsmouth Naval Shipyard, which both occurred in the 1990s, saw population growth slow, Rye still continued to experience double digit growth until the 2000 US Census as the Pease Trade Port was starting to come online and the region was beginning to rebuild its employment base. Now Rye appears to be growing at a much slower rate that it has not experienced since the 1880 US Census.

**Figure 2-1**

<b>Population Changes Town of Rye 1830 – 2010</b>			
<b>Year</b>	<b>Population</b>	<b>Change</b>	<b>Percent Change</b>
1840	1,320	45	3.5%
1850	1,397	77	5.8%
1860	1,326	-71	-5.1%
1870	1,087	-239	-18.0%
1880	1,111	24	2.2%
1890	978	-133	-12.0%
1900	1,100	122	12.5%
1910	1,014	-86	-7.8%
1920	1,196	182	17.9%
1930	1,081	-115	-9.6%
1940	1,246	165	15.3%
1950	1,982	736	59.1%
1960	3,244	1,262	63.6%
1970	4,083	839	25.8%
1980	4,508	425	10.4%
1990	4,612	104	12.3%
2000	5182	570	9%
2010	5298	116	2.2%

Source: U.S. Census

The 2010 Census estimate for Rye was 5,298 residents, which ranked 63<sup>rd</sup> among New Hampshire's incorporated cities and towns. Population Density and Land Area, 2010 (US Census Bureau): 420.0 persons per square mile of land area. Rye contains 12.6 square miles of land area and 24.1 square miles of inland water area.

**Figure 2-2**

<b>Total Population</b>		
<b>Year</b>	<b>Rye</b>	<b>County</b>
2010	5298	295,223
2000	5197	278,748
1990	4461	246,744
1980	4508	190,345
1970	4083	138,951

Source: U.S. Census

**2.2 GROWTH COMPARISON WITH OTHER MUNICIPALITIES**

In Figure 2-3 (page 6) Rye’s rate of population growth is compared to our neighboring communities in the seacoast area. From 2000 to 2010, Rye’s population growth rate was about one-third that of the county and state growth rates.

**Figure 2-3**  
**Population History**  
**16 Eastern Towns of Rockingham County**

Town/Area	US Census Population Counts										Change in population	
	1950	1960	1970	1980	1990	2000	2010	2000-2010	% change			
East Kingston	449	574	838	1,135	1,352	1,784	2,357	573	32%			
Exeter	5,664	7,243	8,892	11,024	12,481	14,058	14,306	248	2%			
Greenland	719	1,196	1,784	2,129	2,768	3,208	3,549	341	11%			
Hampton	2,847	5,379	8,011	10,493	12,278	14,937	14,976	39	0%			
Hampton Falls	629	885	1,254	1,372	1,503	1,880	2,236	356	19%			
Kensington	542	708	1,044	1,322	1,631	1,893	2,124	231	12%			
New Castle	583	823	975	936	840	1,010	968	-42	-4%			
Newfields	469	737	843	817	888	1,551	1,680	129	8%			
Newington	494	2,499	798	716	990	775	753	-22	-3%			
Newmarket	2,709	3,153	3,361	4,290	7,157	8,027	8,936	909	11%			
North Hampton	1,104	1,910	3,259	3,425	3,637	4,259	4,301	42	1%			
Portsmouth	18,830	25,833	25,717	26,254	25,925	20,784	21,233	449	2%			
Rye	1,982	3,244	4,083	4,508	4,612	5,182	5,298	116	2%			
Seabrook	1,788	2,209	3,053	5,917	6,503	7,934	8,693	759	10%			
South Hampton	314	443	558	660	740	844	814	-30	-4%			
Stratham	759	1,033	1,512	2,507	4,955	6,355	7,255	900	14%			
<b>CEDS Eastern Towns</b>	<b>39882</b>	<b>57869</b>	<b>65982</b>	<b>77505</b>	<b>88260</b>	<b>94481</b>	<b>99479</b>	<b>4,998</b>	<b>5%</b>			
<b>Rockingham County</b>	<b>70,059</b>	<b>98,065</b>	<b>138,950</b>	<b>190,345</b>	<b>245,845</b>	<b>277,359</b>	<b>295,223</b>	<b>17,864</b>	<b>6%</b>			
<b>New Hampshire</b>	<b>529,880</b>	<b>606,787</b>	<b>737,681</b>	<b>920,475</b>	<b>1,109,252</b>	<b>1,235,550</b>	<b>1,316,470</b>	<b>80,920</b>	<b>7%</b>			

### 2.3 HOUSING GROWTH AND HOUSEHOLD SIZE

According to the U.S. Census data from 2000 to 2010 Rye’s housing units grew from 2645 to 2852 units. During the previous decade, the number of housing units grew from 2,434 to 2,645. (See Figure 4-2, Chapter 4 - Housing). Thus, according to census data Rye has added an average of 20 units per year over each of the last two decades.

The census data for the past decade is suspect when compared with the records kept by the Rye Building Inspector. As indicated in Figure 2-4, during the last decade new housing construction in Rye averaged only 8.6 units per year. It appears that the building inspector’s report for 2010 did not include the 22 new units at White Birches of Rye. If those units are added, the average increases to 10.2 units per year over the last decade. Since 2010, five (5) new units were built in 2011 and four (4) in 2012.

Figure 2-4

New Homes Per Building Inspector’s Annual Report	
Year	New Homes
2001	10
2002	12
2003	6
2004	23
2005	11
2006	12
2007	2
2008	4
2009	3
2010	3
Total 2001-2010= 86 or 8.6/yr	

Household size has decreased in Rye during the past 20 years. In 1980, the average household size in Rye was 2.61 persons. This figure decreased to 2.40 persons per household in 1990. Since 1990 the number of persons per household has remained relatively stable at 2.35 in 2000 and 2.34 in 2010. (Additional information on household size may be found in Figure 4-5, of Chapter 4 – Housing).

### 2.4 POPULATION PROJECTIONS

The NH Office of Energy and Planning (OEP) fall 2013 population projections for the 16 municipalities of eastern Rockingham County are shown in Figure 2-5. An explanation of the methodology used by the OEP is provided in Appendix III. The OEP estimates project a slight decline in Rye’s population by 2020 and an overall increase of only 193 persons by 2030. The projected growth rate for Rye is half of the projected growth rate for Rockingham County.

**Figure 2-5**

<b>Population Estimates 16 Eastern Towns of Rockingham County</b>					
<b>Municipality</b>	<b>2010 Population</b>	<b>2020 Projection</b>	<b>2030 Projection</b>	<b>Projected Change 2010-2030</b>	
				<b>No.</b>	<b>%*</b>
East Kingston	2,357	2,926	3,042	685	29%
Exeter	14,306	14,187	14,751	445	3%
Greenland	3,549	3,829	3,981	432	12%
Hampton	14,976	14,607	15,188	212	1%
Hampton Falls	2,236	2,568	2,670	434	19%
Kensington	2,124	2,321	2,413	289	14%
New Castle	968	895	930	(-38)	(-4%)
Newfields	1,680	1,777	1,847	167	1%
Newington	753	708	736	(-17)	(-2%)
Newmarket	8,936	9,696	10,081	1145	13%
North Hampton	4,301	4,229	4,397	96	2%
Portsmouth	21,233	21,146	21,986	753	4%
Rye	5,298	5,281	5,491	193	4%
Seabrook	8,693	9,294	9,663	970	11%
South Hampton	814	758	789	(-25)	(-3%)
Stratham	7,255	8,051	8,371	1116	15%
16 Municipalities	99,479	02,273	06,336	6857	7%
Rockingham County	295,223	306,867	319,065	23,842	8%

Source: NH Office of Energy & Planning Fall 2013 Estimates.  
\*Rounded to nearest whole number.

## 2.5 AGE OF RYE’S POPULATION

As Figure 2-7 indicates our population is composed of a higher percentage of older residents than either the state or county. Further, the gap between the median age of the state’s population and Rye’s population is wider. For planning purposes, trends in age distribution are important to note. The needs of the population shift as its age characteristics shift. As a result of these trends, Rye can expect less need for school capacity than in the past and more need for senior housing and senior services.

**Figure 2-6**

<b>Age Distribution Rye 2010 Population</b>		
	<b>Number</b>	<b>Percentage</b>
Total Population	5,298	100.0
Under 5 years	207	3.9
5 to 9 years	294	5.5
10 to 14 years	349	6.6
15 to 19 years	297	5.6
20 to 24 years	157	3.0
25 to 29 years	173	3.3
30 to 34 years	174	3.3
35 to 39 years	260	4.9
40 to 44 years	353	6.7
50 to 54 years	499	9.4
55 to 59 years	445	8.4
60 to 64 years	305	5.8
65 to 69 years	243	4.6
70 to 74 years	211	4.0
75 to 79 years	134	2.5
80 to 84 years	134	2.5
85 years and over	153	2.9
Median age (years)	48.8	

Source: 2010 U.S. Census

**Figure 2-7**

<b>2010 Age Distribution by Percent Town, County, State</b>			
<b>Group</b>	<b>State</b>	<b>County</b>	<b>Rye</b>
16 years and over	81.0%	40.9%	82.7%
18 years and over	78.2%	39.4%	79.7%
21 years and over	73.8%	38.0%	77.8%
62 years and over	17.1%	8.9%	24.7%
65 years and over	13.5%	7.0%	19.7%
Median age (years)	41.1	43.0	48.8

Source: 2010 U.S. Census

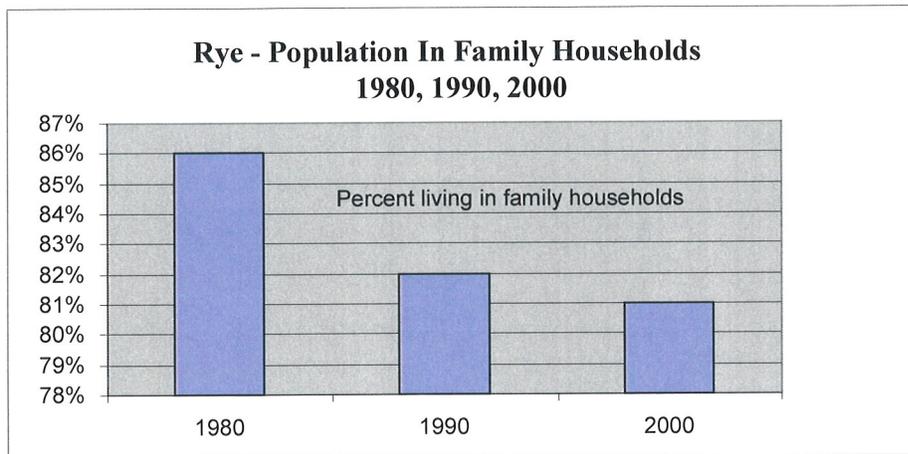
## 2.6 HOUSEHOLD AND FAMILY STATUS

The following figures contain data about the household and family status of Rye’s population. It is important to note that the U.S. Census defines:

- a **household** as all persons who occupy a housing unit (whether related or not);
- a **family** as persons living in the same housing unit who are related by birth, marriage or adoption. Thus, a family is a subset of a household.

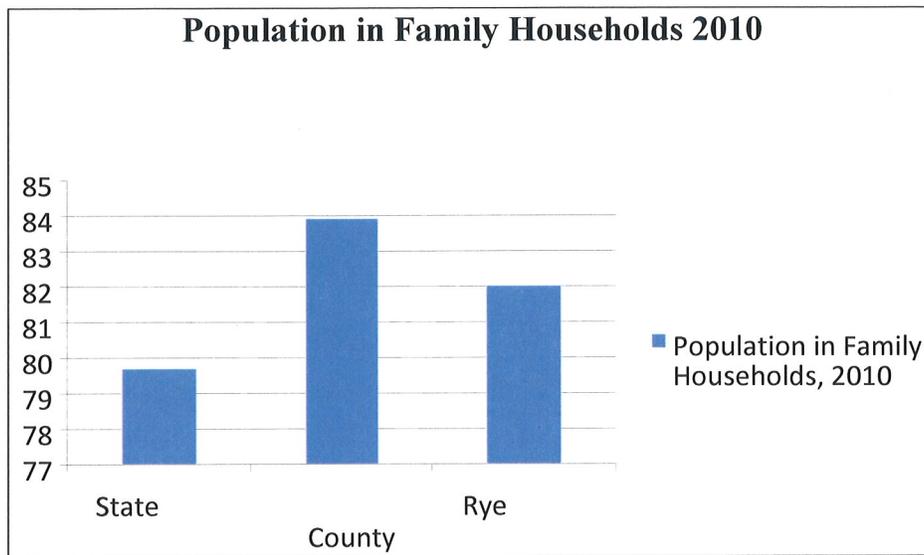
This data shows that most of Rye’s population lives in families, as do most of the populations of Rockingham County and New Hampshire. However, in keeping with the trends in our society, the portion of Rye’s population living within families has declined from 91% in 1970 to 82% in 2010.

Figure 2-8



Source: 2010 U.S. Census

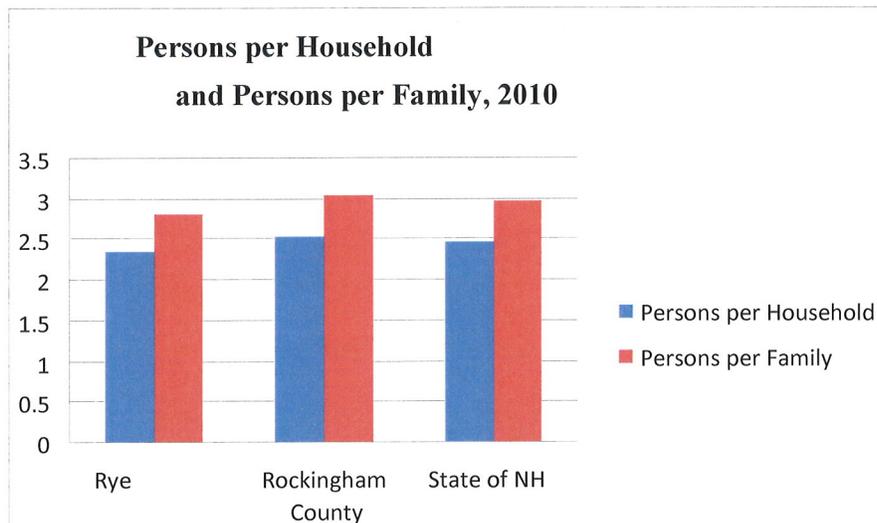
Figure 2-9



Source: 2010 U.S. Census

Figure 2-10 shows the average number of persons per household and persons per family for Rye, Rockingham County, and New Hampshire. This chart indicates that the number of persons per household is smaller for Rye than for the county and the state. However, Rye is fairly even with the state in persons per family, but slightly below the county.

Figure 2-10



Source: 2010 U.S. Census

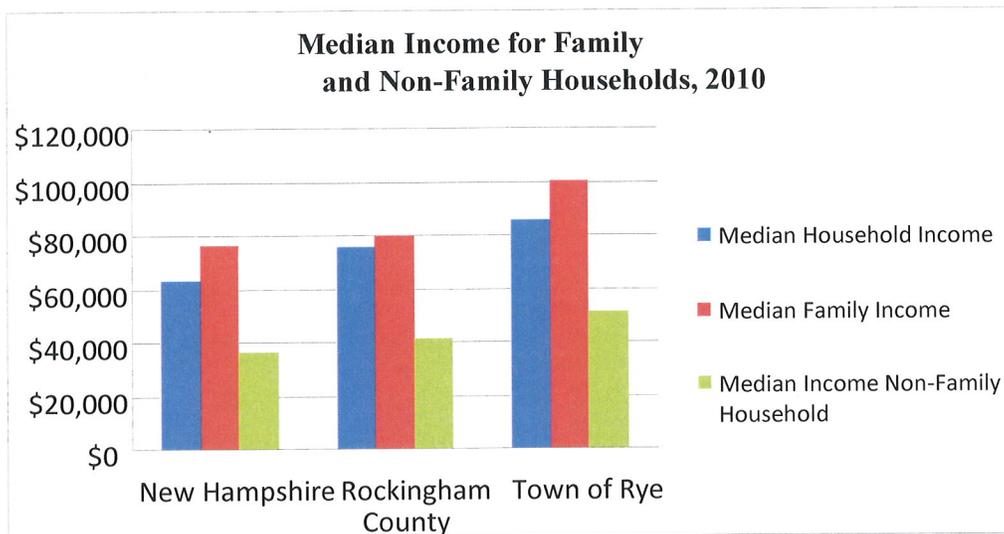
## 2.7 EDUCATION

Rye is a well educated community. According to the U.S. Census 97.5% of Rye’s 2010 population had graduated from high school; 52.9% possessed at least a Bachelors Degree; and 20.2% had a graduate or professional degree. These are considerably higher percentages than found in both the county and state.

## 2.8 INCOME

The median household income in Rye rose from \$42,000 in 1990 to \$85,000 in 2010. Figure 2-11 compares with the Rockingham County and New Hampshire median household incomes of \$76,000 and \$63,000, respectively in 2010. Rye’s median incomes were above that for both the county and state during this time.

Figure 2-11



Source: 2010 U.S. Census

According to the 2010 U.S. Census, 3.2% of Rye’s population lives in poverty, as defined by federal standards. None of these are persons under age 18. 2.5% of the population between 18 and 64 years old lives in poverty, and 8.2% of the population 65 and older lives in poverty.

Figures 2-12 and 2-13 show how Rye’s labor force is employed. Compared with the county and state labor forces, a higher percentage of Rye’s labor force is composed of people in managerial and professional services. Paralleling this data are relatively low percentages of the labor force working in precision production, craft, repair, operator, fabricator and laborer occupations in the manufacturing sector. To summarize, Rye’s labor force has: (1) diminishing employment in the manufacturing sector; (2) increasing employment in the professional and services sectors; and (3) fluctuating government employment.

**Figure 2-12**

<b>2010 Occupations Rye Labor Force 16 Years And Older</b>		
<b>Occupations</b>	<b>Number</b>	<b>Percent</b>
Employed > 16 years old	2845	100.0%
Management, business, science and arts	1289	45.3%
Services	389	13.7%
Sales and office	817	28.7%
Natural resources, construction, maintenance	176	6.2%
Production, transportation, material moving	174	6.1%

Source: 2010 U.S. Census

**Figure 2-13**

<b>2010 Employment By Industry Rye Labor Force 16 Years And Older</b>		
<b>Industry</b>	<b>Number</b>	<b>Percent</b>
Employed > 16 years old	2845	100.0%
Agriculture, forestry, fishing, hunting, mining	67	2.4%
Construction	185	6.5%
Manufacturing	198	7.0%
Wholesale trade	138	4.9%
Retail trade	266	9.3%
Transportation, warehousing, utilities	182	6.4%
Information	71	2.5%
Finance, Insurance, real estate	366	12.9%
Professional, scientific, management, administrative	410	14.4%
Education, health care, social services	437	15.4%
Arts, entertainment, recreation, food services, lodging	385	13.5%
Public administration	64	2.2%
Other services	76	2.7%

Source: 2010 U.S. Census

This demographic discussion of Rye does not give all of the socio-economic details of the area, but gives a good indication of Rye’s demographic characteristics.

## CHAPTER 3 – LAND USE

### 3.1 INTRODUCTION

Land use in the Town of Rye has evolved over the centuries. Originally a rural farming and fishing community, our Town now supports a variety of seasonal tourism, recreational and retirement needs while remaining home to many fulltime residents. According to the Economic & Labor Market Information Bureau (ELMIB) Department of NH Employment Security, the Town of Rye contains 12.6 square miles of land area and 24.1 square miles of inland water area.

It is important to recognize there are a number of physical limitations on land use in Rye. Rye is bound by the Atlantic Ocean to the east and the shoreline is comprised of a mix of sections of rock and of sand landscape. There are large tracts of inter-coastal marsh (half a square mile according to ELMIB) particularly in the northeastern part of Rye, where the land is not suitable for building or development. The greatest value of the usefulness of this land is its remaining open space land allowing it to serve nature and retain the open and rural vistas for which Rye is known.

The Town of Rye administers the orderly use of the land through an elected Planning Board and a Zoning Board of Adjustment. Within the boundaries of the Town of Rye, the Rye Beach Precinct has exclusive authority for planning and zoning. It has its own Planning board, Zoning board and Master Plan. These administrative arms of local government are responsible for issuance and enforcement of fair and consistent regulations that respect the laws of state and federal governments while ensuring the best and highest valued use of the land for citizens and property owners. There are many laws and regulations that bear on the use of real property, from environmental protections; to open space conservation; to new laws establishing a need for workforce housing. In some regard these laws are not fully complementary. There is some natural tension between a need for tighter housing density so that retirement and/or workforce housing can be affordable in an area where sewer is not available throughout, and rock ledge which limits safe septic land allotments. Laws promoting the setting aside of conservation land to protect open space are at odds with the concept of high density and/or low cost housing unless such development is combined with open space requirements. In any case, the Town of Rye is committed to legal and fair administration of land use as required by laws.

The information presented below in this paragraph was obtained from the 2010 US Census website.

- Rye occupied housing amounted to 2252 units.
- Median age in Rye is 49.2 while the national average is 38.7.
- 20.6% (465 units) of occupied housing were rented housing, comparing to a 35.4% national average and compared with 29% for the New Hampshire average.
- 21.0% (600 units) of total housing were empty which is 7.9% higher than the national average and 5.4% higher than the New Hampshire average. Rye has a high percentage of seasonal vacancies at 16.5%.

- 0.7% (35 people) of the Household Population (5298 persons) were living in group quarters (nursing homes, dormitories, correctional institutions, Alzheimer/memory care, facilities, assisted living, etc.), compared with 2.6% and 3.0% for the national average and New Hampshire, respectively.
- Labor force population represented 64.2% (2959) of the total population, whereas 64.0% and 69.9% represented the national average and New Hampshire, respectively.
- Workforce reported average travel time of 28.4 minutes, while the national average was 25.4 minutes and New Hampshire average was 26 minutes.
- The Median family income in Rye was \$89,297 in 2011 dollars, which was higher than the national average of \$64,293 and higher than the New Hampshire average of \$78,310.
- Rye had 1787 owner occupied homes (representing a 79.4% owner versus a 20.6% renter occupied ratio).
- Rye’s average property value was \$585,000 in 2010, compared to \$186,200 and \$250,000 for national and New Hampshire, respectively.

### 3.2 VISION

Our vision for land use in Rye includes a community that is comfortable for those who live here, and desirable to those who are looking for a town with a good sense of heritage, open spaces and excellent schools.

Rye’s land use policies will be fair and good for the community as a whole. Our decisions will support a balance of choices, convenience, safety, security, conservation, environmental protection and a sense of community. We will value our past and present, embracing change when we foresee that it improves the Town according to this plan. Green spaces will be for conservation of natural resources such as water and to preserve fragile habitats, for viewing of coastline, marshes, fields and forests along our roads and for recreation use by the public.

In this vision we recognize that –

- The purpose of zoning is to safeguard the health, safety and general welfare of our citizens and property owners;
- Rye’s current buildings include: single family homes of all sizes, small-lot beachfront homes, multi-family dwellings, vacation homes, manufactured housing, commercial development, in-house apartments, farms, schools, and a regionally recognized Seacoast Science Center;
- Our ability to incorporate these many land uses and protect significant portions of open space while still maintaining a “semi-rural” ambiance testifies to our ability to plan wisely.

### 3.3 OVERVIEW

The very intent of community planning is to lay the groundwork for deliberate and intelligent land use. By combining voices through visioning sessions, citizens guide communities and regions toward desirable landscapes. Legally, these visions must be committed to paper in the

form of a Master Plan in order to prevent random rulings about how landowners can use their land. Through zoning, town representatives can protect the health, safety and welfare of the community, but it must be done with respect for individual property rights.

#### **A. PLANNING BOARD AND ZONING BOARD OF ADJUSTMENT ROLES**

The Planning Board can publicly establish land regulations that address the specifics of project applications and specifications. However, types of projects which are not allowed must be set down in the Master Plan. This document tells the Planning Board and the Zoning Board of Adjustment (BOA) essentially what kind of development Rye wants and where it will be allowed.

It is vital to remember the BOA's role in the planning process. Developers' requests for variances and special exceptions must not be granted unless they reinforce the wishes of the Master Plan. This leads to the BOA's role as an arbiter of disagreements between developers and the Planning Board as to which parts of projects conform to the zoning and which fall outside of the established zoning ordinance parameters. It is a difficult role given that the BOA may grant variances and special exceptions<sup>1</sup> which fall outside the literal zoning guidelines but may fit within the spirit of the ordinance. An old saying is, "Only the BOA can interpret the zoning and the only thing the BOA can do is interpret the zoning."

Nonetheless, where it can do so without unduly denying property owners the right to reasonably use their land and without causing harm to neighbors, the BOA must adhere to the letter of the law. Allowing "fringe" cases to deviate from the Master Plan on a case-by-case basis allows the sort of piecemeal creep that undermines our planning efforts.

#### **B. DEVELOPMENT OF RYE THROUGHOUT THE YEARS AND CONSERVATION**

The development of Rye has been predominately residential. There is some commercial development found along Route One, and there are small business and commercial districts dispersed throughout town. There is no traditional commercial village center.

Figure 3-1 provides an interesting look at a study that evaluated aerial photographs produced at various times over the course of 36 years. The Complex Systems Research Center at the University of New Hampshire performed this study<sup>2</sup> of all the communities

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<sup>1</sup> The zoning terms "special exception", "variance", and others are defined in the Concordance.

<sup>2</sup> It is important to note that there are some problems inherent with interpreting aerial photographs taken over a period of thirty years. The scales of the maps differ, leading to varying degrees of quality for interpretation purposes. In addition, the science of aerial photography has improved over this time frame so that more information can be gleaned from the more recent photographs. These factors conspire to create unexplainable differences in some of the categories. These issues notwithstanding, the study offers valuable insight into the trends of land use change in town and provides a solid baseline for future studies as well.

in Rockingham County in order to quantify land use change. By interpreting aerial photographs from the years 1962, 1974, 1998 and 2010 this study tracked land use changes in a number of different categories to show how the region’s landscape had changed. The table shows the breakdown of land use categories for Rye<sup>2</sup>.

This study shows that Rye has maintained a remarkable mix of land use considering its location on the valuable New Hampshire seacoast.

Looking at residential uses, in 1962 the Town had 1,135 acres in residential land use. By 1998 this total had increased to 1,776 acres, a change of 641 acres. That represents an increase in residential development of over 50% during that 36-year period.

Unfortunately for our goal of maintaining the semi- rural character of Rye, this increase had to come nearly entirely at the expense of our agricultural sector. The number of acres in agricultural use in 1964 was 679. This total had decreased to 249 acres in 1998, which represents a decrease of 63 percent. However, the town wide total of 3 percent active agricultural use remains high for our region Rye shows a significant retention of agricultural activity in a county increasingly turning away from its agricultural traditions. With the very high rate of retention for forested land, the Town of Rye is in the enviable position of having been successful in retaining rural character in a region that highly values it but has been losing such character in large measures over the last three decades.

Figure 3.1

Land Use Designations from 1962 to 1998, Rye, New Hampshire							
		1962		1974		1998	
Developed Uses	Land Use Category	Acres	% of Town	Acres	% of Town	Acres	% of Town
		Residential	1,135.5	13.5	1,356.8	16.2	1,766.6
	Industrial/Commercial	49.0	0.6	68.5	0.8	78.9	0.9
	Mixed Urban	37.9	0.5	34.4	0.4	70.5	0.8
	Transportation/Roads	132.9	1.6	143.5	1.7	157.6	1.9
	Railroads	1.0	0.0	1.0	0.0	1.0	0.0
	Auxiliary Transportation	1.1	0.0	0.3	0.0	0.0	0.0
	Playing Fields/Recreation	3.3	0.0	119.5	1.4	185.2	2.2
Undeveloped	Active Agriculture	679.3	8.1	345.0	4.1	249.1	3.0
	Farmsteads	2.0	0.0	0.0	0.0	0.0	0.0
	Forested	4,700.4	56.1	4,582.2	54.7	4,386.7	52.3
	Water	366.2	4.4	372.2	4.4	377.2	4.5
	Open Wetlands	772.8	9.2	774.8	9.2	797.4	9.5
	Idle/Other Open	499.0	6.0	581.9	6.9	299.4	3.6
<b>Totals</b>		<b>8,380</b>	<b>100</b>	<b>8,380</b>	<b>100</b>	<b>8,380</b>	<b>100</b>
<b>Aggregate Categories</b>							
Developed Uses		1,360.6	16.2	1,724.1	20.6	2,269.8	27.1
Undeveloped Uses		7,019.7	83.8	6,656.2	79.4	6,109.8	72.9
<b>Totals</b>		<b>8,380</b>	<b>100</b>	<b>8,380</b>	<b>100</b>	<b>8,380</b>	<b>100</b>

Source: The Complex Systems Research Center at the University of New Hampshire performed this study.

The forested category represented 56 percent of the town's acreage in 1964. Remarkably, this category decreased by less than four percent over the thirty-six year period of comparison. Total forested acres went from 4,700 in 1964 to 4,386 in 1998. Still, it covers an amazing 52 percent of the acreage in town. This fact reflects not only a commitment to "open space" on the part of our community as a whole but it also reflects individual landowner's preference for woodlands on their private lots.

It is important to note that there is an increase over the study period of acreage in the category of "*playing fields / recreation*". In 1964, 3.3 acres were classified as "*playing fields / recreation*". By 1998 this total had increased to 185 acres, a nearly 60-fold increase.

There have been sustained efforts by our Conservation Commission, Parsons Park Corporation and the Rye Open Space Committee contributing significantly to these efforts. In addition, the Town and its recreation supporters have committed to creating and conserving recreation facilities. Rye citizens have shown overwhelming support for these groups and their initiatives.

#### C. EXISTING LAND USE

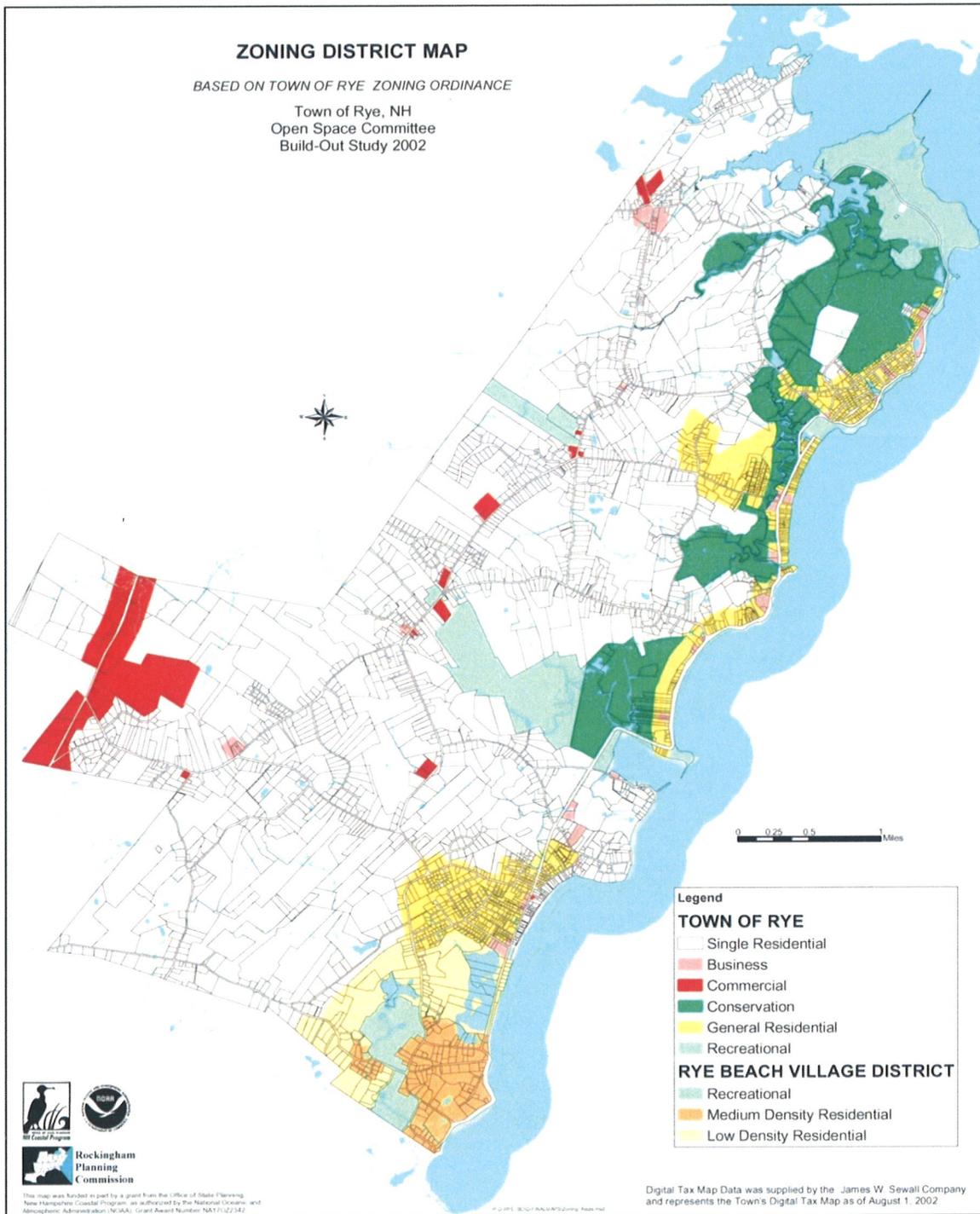
The information in Figure 3-1 was based on the visual interpretation of existing land uses. As such, it was essentially blind to ownership or lot boundaries. Figure 3-2 present's brief descriptions of Rye's zoning districts and the acreage found in each according to the build-out study completed in 2002 for the Town of by the Rockingham Planning Commission. Further elaboration can be found in Appendix B and in Rye's Zoning Ordinance. The districts discussed are as shown on the zoning map.

Below, are brief descriptions of Rye's zoning and the acreage found in each of the districts. Further elaboration can be found in Appendix C and in Rye's Zoning Ordinance.

**Figure 3-2**

<b>Zoning Districts, Their Sizes &amp; Allowed Uses in 2002, Rye, NH</b>			
<b>District</b>	<b>Acres</b>	<b>%</b>	<b>Permitted Uses</b>
Single Residence (SRD)	5268	74	Single-family homes, farms, and limited home occupations. And by special exception <sup>1</sup> : mobile homes, condominium conversions, hospitals, convalescent or nursing homes, and homes for the elderly
General Residence (GRD)	450	6	Same as SRD & two single-family units
Business (BD)	55	1	Same as SRD & small retail, service enterprises, lodging establishments. By special exception <sup>1</sup> : other expanded uses (including the sale of petroleum products)
Commercial (CD)	221	3	Same as BD but no 1-, 2-family dwellings. Vehicle salesrooms, lumberyards and building supplies; professional offices, financial institutions. Other uses by special exception <sup>1</sup> provided that they are not detrimental or injurious to the neighborhood
Conservation	650	9	Open space and forestry, trails, picnic areas, minimal walkways and structures to support the same
Public Recreation	443	6	Recreational purposes on lands owned by the Town of Rye, the Rye School district and the State of New Hampshire reserved for those purposes
<b>Total</b>	<b>7087</b>		

### FUTURE LAND USE MAP



**D. FUTURE LAND USE**

We have developed a number of strategies to guide our patterns of development. Zoning has historically been used to establish major areas for residential and commercial development. In the past, these uses have for the most part been segregated. New residential uses have been primarily developed in the interior areas of town. Commercial development has been allowed along the US Route 1 corridor.

Our vision for land in the Coastal area is one of limited commercial development that utilizes the best practices of low impact development concepts. While we understand that growth will occur, our vision is for growth without over bulking of lots and with minimal increase in impervious surfaces.

Aside from the Lafayette Road corridor, there are two areas in Rye where limited, well planned business development should take place. The first is the Town Center where small retail businesses and offices that are compatible with the objectives of the Historic District should be encouraged. (See Vision Statement, p. 1). The second area is Foyes Corner and Sagamore Road to the north which has historically been an area of commercial development and which is being gradually upgraded and which will continue to be upgraded as sewer service is extended from Portsmouth.

The future land use map found in this chapter is a representation of the desired direction of future development in town based on the Open Space Use Committee of 2002. It is a useful tool for visualizing the recommended development pattern but is not intended to be a formal zoning map. The boundaries are general guidelines that will change as zoning is changed by the Townspeople.

**E. WETLANDS, SHORELANDS AND OTHER LAND USE**

To understand all kinds of development in our Town, one must understand that we have always put a high priority on protecting natural resources. The Town's wetlands, shorelands, and other land use ordinances influence nearly every development proposal that is reviewed by the Planning Board.

Wetlands and Flood Zone Ordinances regulate development around our wetlands and rivers. These resources perform vital ecological functions, provide open space, wildlife habitat and passive recreation opportunities, all of which contribute to the Town's rural character. In addition, by avoiding the disruption of our wetlands we safeguard our water quality, public health, and natural ability to handle excess water during flood events.

Floodplains are undesirable locations for development because of the associated risks to life and property. In addition, construction in the floodplains worsens flood hazards downstream. For example, the inundation of septic systems can cause water pollution and public health hazards. Further, due to ledge and water concerns, Rye has very limited opportunities for traditional development.

Rye citizens have also taken non-zoning actions to preserve the Town's rural flavor. Both the Open Space Committee and Conservation Commission have undertaken programs to purchase easements or land in order to insure against future development. Due to the Town's extensive holdings, these properties are shown in Appendix B. The Town should continue to aggressively acquire easements and property in order to protect open space.

Our extensive commitment to publicly held conservation land complements the zoning in promoting the rural feeling. The fair treatment of landowners, older citizens and new families requires innovative approaches to development. Rye simply does not have much buildable land (i.e., outside of environmental buffers, not on ledge) to sustain long road frontages and large lot development.

#### **F. HOUSING**

There are a number of in-house apartments and multi-family units in Town that provide housing diversity. There are also multiple dwellings on a single lot. However, some of these multiple residences and all of the multi-dwelling lots exist as non-conforming lots with respect to zoning in which they are located. Zoning is intended to discourage non-conforming use. Thus, over time many of these non-conforming multi-family sites may disappear and be replaced by structures that conform to zoning.

It is not in the best interest of the Town to lose this housing variety. Rye desires as much affordable housing as is possible in view of the physical limitations of/and the cost of land.

Developable backlands in residentially zoned areas may be appropriate for new alternative approaches. Some of the alternatives we can consider are: planned unit residential developments, retirement communities, and workforce housing.

On March 13, 2006, the Town passed a new zoning classification called "Retirement Community Development" (RCD), Section 401 of the Zoning Ordinance. This new classification requiring 10 or more acres, allows for 8-16 detached or attached (town houses) with reduced side and front setbacks. Additional units may be allowed (up to 22) if a project provides at least 15% affordable housing units. One or two additional units may be allowed for "excellence in design".

The developed area envelope would be set back on the sides, front and rear with natural screening vegetation. Each unit would have no more than 2 bedrooms and would have covered parking. If sewers were not available at a road adjacent to the property, a single development-wide septic system would be recommended. Access roads and driveways would be private and maintained by an owner's association. The entire RCD would be limited to occupants over 62 years of age.

Adopted in 2006, the RCD is an example of a cluster style development that addressed affordable housing for the elderly. Recognizing the need for affordable housing for its aging population, the residents of Rye voted to support a cluster type development. We see this cluster style of development as an example of a strategy to provide additional workforce housing.

On the traditional Single Residence lots, the larger sizes of homes built in Rye in recent years have been more compatible with large lots. However, there have been concurrent surface water drainage management problems which has manifested in recent years and warrant review of density and coverage requirements.

On March 9, 2010 the town passed three zoning amendments to further opportunities for workforce housing. One amendment provides for multi-family dwellings and multi-family developments in a Multi-Family Dwelling Overlay District. Another provides for Conservation Land Developments (CLDs) in the Single Residence and Commercial District. The third amendment enlarged the Commercial District in which CLDs may be developed. (See Chapter 4A, p. 28.

Environmental, health and safety issues have arisen with the expanded use of retention and detention ponds to control surface water flow in developments and on individual lots. Ponds have, at times, become stagnant mosquito breeding areas. In some areas they have inadvertently served as collectors of lawn chemicals, animal wastes and other pollutants. Storms flush the pond's polluted water into our surface waters. These activities impact abutters and the Town after the development has been completed.

These issues should be recognized in any proposed future development by requiring an environmental escrow account which would be held by the Town for three to five years following completion of the development to ensure that any remedial measures function correctly as designed.

#### **G. SALT MARSHES & MOSQUITO CONTROL**

Mosquito control is very important in any town on the New Hampshire seacoast. Salt marshes are of prime importance as a place for natural predation of mosquito larvae.

Restoration is being pursued in Rye based on a 1994 study prepared by the USDA Soil Conservation Service. The primary approach in the marsh restoration process is to restore the natural tidal flow of salt water into and throughout the marsh. This is accomplished by replacing all blocked or undersized culverts and by dredging channels. Through our Conservation Commission, we will continue to compete for grants from federal and state environmental agencies. These funds will complement those which we will raise from individual contributions and private environmental foundations. To assure the effectiveness, a program of increased frequency of sampling both the streams and in-shore coastal waters should be funded. Results would be used to document and better located what are now viewed as "non-point" sources of pollution.

## **H. HISTORY AND OUR HISTORIC DISTRICT**

Rye's Historic District should be maintained with only modest expansion beyond its present coverage. There are only a few additional historic buildings in an area contiguous to the present district. Other historically and architecturally significant structures are dispersed throughout Rye. The goal of preserving our heritage has been advanced by the formation of a Heritage Commission.

In addition, to honoring our natural heritage, we also want to recognize and protect elements that combine to recall history that makes Rye unique. Every community has a distinctive sense of character resulting from the way that life has been lived there over time. This sense of place gives stability to the town and thus enhances its attractiveness for residents.

## **3.4 NEXT STEPS**

### **A. HOUSING**

A number of specific land use items for discussion and action are covered more specifically in other chapters herein. Building upon an established record of planning that predominately supported the construction of single-family homes; we need to ensure that Rye continues to provide balanced coverage of the housing spectrum, in accordance with applicable Local and State laws.

- We will address the suitability of the US Route 1 area. This area is already a high use area due to its being a major transportation artery for the area. The atmosphere along that corridor already differs significantly from that found nearer the Town Center or near the coast.
- We will aggressively address options for conservative development. Given that most desirable lots suitable for construction, not requiring additional roads, with a 200-ft frontage have already been exhausted, we need to develop alternate methods for ensuring that future development takes advantage of existing constraints to create desirable housing options. Among these will be the introduction of innovative subdivisions where various parameters intended to safeguard green space and privacy are shared within the development rather than on a parcel-by-parcel basis.
- Our manufactured housing area is unprotected from future development. We will address the safeguarding of this existing use through zoning changes. These mobile homes are already an established part of the face of Rye and they represent an important piece in the provision of a diversity of housing options.
- We will further explore mixed-use options in our zoning.

**B. WASTE WATER TREATMENT**

Several issues related to waste treatment need our consideration.

- We will consider the extension of Portsmouth provided and user-financed sewerage service in Rye along Route One to support further development within the Lafayette Road corridor. We acknowledge that we are pushing limits of what septic options we have.
- The sewerage needs of the remainder of Rye's coastal area which are not served by public sewerage should be studied.
- Pursuant to the authority of RSA 149-I:19, the Board of Sewer Commissioners of the Town of Rye re-adopted the Rye Sewer Use Ordinance, enacted by the Rye Board of Selectmen on December 17, 1990, amended in 1993.
- In response to problems of detention and retention ponds, following the completion of recent projects, we will consider requiring an environmental escrow account of developers. The Town would hold funds for three to five years following completion of development to ensure that all remedial measures function correctly as designed.
- A program of increased frequency of sampling both the streams and in shore coastal waters should also be funded. Any negative results would feed back into a septic improvement plan.
- In 2013, the Town voted for Article 13 which was in favor of the expansion of the City of Portsmouth Sewer System (at no cost to the Town of Rye and pursuant to an Inter-municipal Agreement to be negotiated between the Rye Sewer Commission and the City of Portsmouth) in order to provide public sewer service by the City of Portsmouth from the Rye/Portsmouth boundary on Sagamore Road ending at Pioneer Road at Foyes Corner.

**C. REUSE OF BUILDINGS**

We will consider the uses of the former police station within the global parameters of municipal space requirements.

**D. CONSERVATION AND LAND PROTECTION**

We will maintain our interests and activities in regard to safeguarding Rye's naturally beautiful landscape.

- The town should continue to aggressively acquire easements and property, thus expanding existing protected areas. Landowners should be educated on their options for contributing to the Town's conservation resources while simultaneously safeguarding their individual investments.
- Sound management of all protected areas should provide for desirable wildlife habitat and extend wildlife corridors.

- The town should also strive to protect remaining agricultural activities whenever the opportunity arises. In instances where agricultural uses may be abandoned, efforts to preserve these lands with the goal of potential future agricultural use should be pursued.
- The town should promote the use and maintenance of the acquired properties. Paths and trails should be maintained and marked for public use. Uses that benefit the community should be encouraged on town property.

#### **E. SUBDIVISIONS**

Conventional cookie cutter subdivisions do not meet the standards of rural character and open space that give Rye its distinct character. Rather than conventional empirical area and frontage dimensions we should consider a design based approach as outlined in the book *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*, by Randall Arendt (Island Press, 1996). This approach would not increase density but would look at conserving natural features and building in appropriate areas.

Town ordinances should allow for flexibility in the layout of subdivisions. Allowing a clustered development would promote open space and avoid the “checkerboard” development that only creates larger house lots and more streets. Conservation design would better match the traditional historic town roads and open fields that Rye has. Conservation design subdivision should not require any special exception that would discourage developers from proposing this instead of conventional subdivisions.

#### **F. LOW IMPACT DEVELOPMENT**

Low Impact Development is an innovative approach to storm water management based upon the principal of managing rainfall at the source. Residential areas contribute road based pollutants from vehicles such as oil, grease, polynuclear aromatic hydrocarbons (PAH's), lead, zinc, copper, cadmium, sedimentary soil particulates and road salts as well as herbicides pesticides nutrients from fertilizers, bacteria and viruses from animal waste. All of these contaminants can impair beneficial uses of receiving waters. Rye is approximately 80% residential and storm water management needs to be applied in a holistic approach in order to protect our water quality.

Engineered storm water conveyance, treatment, and detention systems should attempt to cause minimal disruption of the natural hydrological cycle. Traditional practices such as detention ponds and retention basins are not cost-effective and the results will not meet water quality goals. Future land use needs to consider reducing impervious surfaces such as roads and parking areas, altering road construction standards, alternative transportation systems that do not require extensive impervious surfaces (bike and walking paths). By incorporating Low Impact Development, the Town will work toward protecting surface and ground water quality, maintaining ground water quality, maintaining integrity of aquatic living resources and ecosystems, and preserving the physical integrity of receiving streams

## CHAPTER 4 – HOUSING

### 4.1 VISION

We recognize that –

- The majority of our citizens want Rye to remain semi-rural;
- There are increasing demands for housing in Rye, with the increase in population growth in the Seacoast region as well as the entire State of New Hampshire and especially considering the success of the Pease Tradeport; and
- This will make it challenging to maintain Rye as a semi-rural community unless changes are made in our zoning that will help preserve the Town's character while recognizing the need to work to accommodate a changing population.

Thus we envision for our future a community which continues to value its winding roads, stands of trees and coastal shores and will be welcome to and open to the shifting needs of all present and future residents. Our success as a Town will be judged on how we treat all residents and how we grow and adapt to challenges as they are presented to us. As we have seen in the past, our Town can rise to meet any challenge and work for the benefit of all.

Our housing options should adjust in response to shifts in our residents' needs. Our variety of housing choices will be safeguarded through local ordinances to ensure we do not have to leave Rye at any stage of our lives to have an affordable place to call home. This is true for our most treasured and oldest members of our community right down to the very youngest members of our families. We should work hard to make sure that we safeguard every citizen's ability to live and enjoy our wonderful community as long as they choose.

### 4.2 OVERVIEW

The vast majority of Rye's land is zoned for residential use. It is largely a town where people live and work elsewhere. The relatively slow population growth contrasts the fairly rapid population growth in surrounding communities. In recent years, this is due in large part to the cost of acquiring land/ housing in our town.

In keeping with our vision, the Town of Rye enacted Growth Management Practices, in 1987. The ordinance was enacted pursuant to authority granted by NHRSA 674:22. It is intended to regulate and control the timing of development in accordance with the objectives of both the Master Plan and the Capital Improvements Program adopted by the Rye Planning Board. These two documents assess and balance the community development needs of the Town of Rye while considering regional development needs.

Population information for Rye is displayed in Figure4-1. In addition to highlighting information regarding Rye, the figures in this chapter show information for other communities. These communities were chosen due to their similar position as coastal towns. On these tables

the combined information for Rye and the other coastal communities constitute the field entitled “REGION”. This has been done so that Rye can compare itself within the context of similarly situated communities.

In the 1980’s Rye’s population grew at an average annual rate of 0.02%. This is the lowest rate in the area for all communities that had a positive growth rate. In comparison, the State of New Hampshire experienced annual growth rates of 1.9% in the decade of the 80’s, almost ten times the rate experienced in the Town of Rye.

This situation changed in the 1990’s with Rye seeing growth much more in line with surrounding communities as well as that of the State as a whole. Rye’s annual average growth rate in the 1990’s was 1.2% which was slightly higher than the 1.1% average annual growth rate experienced statewide during the same decade.

Figure 4-1

Southeastern New Hampshire Regional Population Trends								
Town	1980	1990	2000	2003	2010	Average Annual % Change 1980-1990	Average Annual % Change 1990-2000	Average Annual % Change 2000-2010
Exeter	11,024	12,481	14,058	14,505	14,306	1.2%	1.2%	1.7%
Greenland	2,129	2,768	3,208	3,377	3,549	2.7%	1.5%	9.6%
Hampton	10,493	12,278	14,937	15,266	15,430	1.6%	2.0%	3.2%
Hampton Falls	1,372	1,503	1,880	1,988	2,236	0.9%	2.3%	15.9%
New Castle	936	840	1,010	1,023	968	-1.1%	1.9%	-4.3%
Newfields	817	888	1,551	1,626	1,680	0.8%	5.7%	7.7%
Newington	716	990	775	794	753	3.3%	-2.4%	-2.9%
N. Hampton	3,425	3,637	4,259	4,496	4,301	0.6%	1.6%	1.0%
Portsmouth	26,254	25,925	20,784	21,051	20,779	-0.1%	-2.2%	0.0%
Rye	4,508	4,612	5,182	5,290	5,298	0.2%	1.2%	2.2%
Seabrook	5,917	6,503	7,934	8,391	8,393	0.9%	2.0%	2.0%
Stratham	2,507	4,955	6,355	6,757	7,255	7.1%	2.5%	12.4%
<b>REGION</b>	<b>70,098</b>	<b>77,380</b>	<b>81,933</b>	<b>84,564</b>	<b>85,248</b>	<b>1.5%</b>	<b>1.4%</b>	<b>3.9%</b>
STATE OF NH	920,475	1,109,117	1,235,786	1,291,573	1,316,470	1.9%	1.1%	6.1%

Source US Census, 1980, 1990, 2000 and 2010

Rye’s population increase from 1990-2000 resulted in a similar increase in new housing units during the same period. From 1990-2000, 211 housing units were constructed in Rye, sufficient to house the 570 new residents that came to town during the decade. These figures are appropriate when considering the average household size for owner-occupied structures in Rye is 2.4 persons.

Figure 4-2 provides housing information for Rye and its surrounding communities for the same period. It is interesting to note that the Town’s population grew by only 104 people for the decade of the 1980’s but housing units increased by 567 during the same period. The decade of the 1990’s was a cooling off period that saw community growth settle into a pattern more in alignment with that of the State as a whole. In fact, the State and the Town had the same average annual growth rate for the decade at 0.8%. Since our last census (2010), Rye’s population now stands at 5298.

The interpretation of New Hampshire statutes by the State’s courts suggests that towns are responsible for both accepting a fair share of population growth and housing. Towns are also responsible for the provision of opportunities for a variety of housing types to be built throughout town. Rye’s ability to provide housing for all of its residents can best be analyzed by examining the types of housing and the economic status of its residents.

**Figure 4-2**

<b>Southeastern New Hampshire Housing Units</b>						
<b>Town</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>Average Annual Growth Rate 1990-2000</b>	<b>Average Annual Growth Rate 2000-2010</b>
Exeter	4,401	5,333	6,107	6,496	1.4%	0.6%
Greenland	733	1,074	1,244	1,443	1.5%	1.5%
Hampton	4,444	8,602	9,349	9,921	0.8%	0.6%
Hampton Falls	483	591	729	900	2.1%	2.1%
New Castle	352	408	488	537	1.8%	1.0%
Newfields	280	323	532	591	5.1%	1.1%
Newington	257	328	305	322	-0.7%	-0.5%
N. Hampton	1,252	1,492	1,782	1,914	1.8%	0.7%
Portsmouth	9,872	11,369	10,186	10,625	-1.1%	0.4%
Rye	1,867	2,434	2,645	2,852	0.8%	0.8%
Seabrook	2,520	3,469	4,406	4,544	2.4%	1.1%
Stratham	843	1,917	2,371	2,864	2.1%	1.9%
REGION	25,437	37,340	40,144	43,009	1.5%	0.7%
STATE of NH	349,001	504,541	546,524	546,524	0.8%	1.2%

Source: 2010 U.S. Census

Single-family residences compose the bulk of the dwellings in Rye. However, the mix of housing types available in Rye does not differ substantially from many of the communities in the region. The Planning Board has since the last Master Plan Update (2006) added Work Force Housing to its Zoning Ordinances and Land Development Regulations in an effort to expand the types of housing and development available to developers and potential new residents. Figure 4-3 illustrates Rye’s housing types relative to the surrounding towns.

**Figure 4-3**

<b>Southeastern New Hampshire Housing Stock in 2010</b>				
<b>Town</b>	<b>Single Family Detached</b>	<b>Multi-Family</b>	<b>Mobile Home</b>	<b>Total Housing Units</b>
Exeter	2,965	2,735	1,048	6,751
Greenland	1,081	321	6	1,408
Hampton	5,416	4,217	278	9,911
Hampton Falls	771	72	12	855
New Castle	462	59	0	521
Newfields	535	55	10	600
Newington	277	44	2	323
N. Hampton	1,500	146	307	1,953
Portsmouth	4,224	6,097	279	10,600
Rye	2,286	357	75	2,718
Seabrook	1,850	1,547	1,088	4,485
Stratham	2,079	725	13	2,817
REGION	23,446	16,378	3,118	42,942
STATE of NH	386,937	185,197	39,205	611,339

Source: Current Estimates and Trends in New Hampshire’s Housing Supply, 2010 Update; NH Office of State Planning, 2010

As shown in Figure 4-3 above, slightly more than 84% of the housing units in Rye are single family homes. This statistic is comparable to other towns in southeast New Hampshire.

Figure 4-4 presents U. S. Census information indicating median<sup>3</sup> home values and median renter values for the Town of Rye, the surrounding communities and the State of New Hampshire. Property values in the Town of Rye are among the highest in the State. As displayed in Figure 4-4, the Town of Rye has the second highest median home value in coastal NH, surpassed only by the Town of New Castle. The 2007-2011 median value of \$585,000 also far surpasses the State median value of \$250,000.

Note also that the median value of homes in Rye has almost tripled between 1990 and 2007-2011. In 1990 the median home value was \$214,100. By 2007-2011 this value had increased to \$585,000. Rye is the only town in the region to see this level of appreciation.

<sup>3</sup> A median value indicates the number in the center of a group of values, in this case, housing prices: half the prices were higher than the median cost shown, half were lower. By contrast, the average is calculated: the sum of all values in a group is divided by the number of values in that group.

Figure 4-4

Southeastern New Hampshire's Median Housing Values and Rents						
Town	Median Home Value			Median Monthly Rental		
	1990	2000	2007-2011	1990	2000	2010
Exeter	154,000	170,000	279,200	539	702	1,114
Greenland	168,100	213,000	370,900	690	885	1,350
Hampton	162,500	190,400	337,100	540	682	1,037
Hampton Falls	221,200	266,300	449,200	583	821	n/a
New Castle	295,000	566,600	n/a	600	1,462	n/a
Newfields	142,800	196,500	423,000	517	656	n/a
Newington	197,300	256,800	455,600	539	805	n/a
N. Hampton	187,400	211,300	377,000	547	706	n/a
Portsmouth	137,600	168,600	312,600	497	727	1,205
Rye	214,100	311,100	585,000	611	929	1,085
Seabrook	145,500	181,900	277,800	514	686	1,033
Stratham	177,700	270,200	395,600	661	865	1,516
REGION	182,767	250,225		570	827	
STATE of NH	129,400	133,300	250,000	491	646	980

Source: U.S. Census Bureau

The most obviously distinguishing feature about Rye is its geography. More than half of New Hampshire's entire coastline falls within Rye. This proximity and ready accessibility to the ocean make it highly desirable for residents as well as second-home owners. Rye's cultivated interest in maintaining a semi-rural atmosphere and support of quality education also contribute to the richness of this jewel. Thus, as older buildings have aged, lots have been purchased, old structures torn down, and new, more modern homes built in their places.

Figure 4-5 provides additional information about southeastern New Hampshire's housing availability. Rye stands out in two ways relative to its neighbors: First, Rye has a disproportionate number of vacant units when compared to other communities. At 21% of the total units in town, this percentage is higher than the region and state percentages of 15% and 14%, respectively. Closer investigation of the U.S. Census data reveals that most of the vacant units are further defined as "vacant only seasonally." This makes sense in a community where many residences are second homes.

Secondly, Rye differs in household size. At 2.43 persons per owner-occupied unit, only two communities (Hampton and Portsmouth) have smaller occupancy figures. At 1.97 persons per renter-occupied unit, four communities in the region have smaller household sizes than Rye.

Most housing specialists agree that the affordability threshold for housing cost should be approximately 30% of household income. That is, the members of a household are enjoying "affordable housing" if no more than 30% of their income is spent on their physical housing. While there is no direct way of determining the number of persons in Rye that meet that threshold, there is information available that details the range of incomes in Town.

Figure 4-5

2010 Housing, Ownership & Occupancy in Southeastern New Hampshire							
Town	Total Housing Units	Occupied Housing Units	Vacant Housing Units	Owner-Occupied Housing Units	Renter-Occupied Housing Units	Household Size-Owner Occupied	Household Size-Renter Occupied
Exeter	6,496	6,114	382	4,325	1,789	2.46	1.87
Greenland	1,443	1,372	71	1,100	272	2.67	2.14
Hampton	9,921	6,868	3,053	4,710	2,158	2.33	1.79
Hampton Falls	900	834	66	743	91	2.73	2.26
New Castle	537	449	88	370	79	2.73	1.91
Newfields	591	575	16	524	51	3.01	2.00
Newington	322	292	30	241	51	2.58	2.29
N. Hampton	1,914	1,760	154	1,557	203	2.48	2.11
Portsmouth	10,625	10,014	611	5,139	4,875	2.23	1.80
Rye	2,852	2,252	600	1,787	465	2.43	1.97
Seabrook	4,544	3,706	838	2,327	1,379	2.44	2.17
Stratham	2,864	2,746	118	2,476	270	2.69	2.24
REGION	43,009	36,982	6,027	25,299	11,683	2.52	2.05
STATE of NH	614,238	518,866	95,097	368,220	150,646	2.59	2.14

Source: 2010 US Census

The following graph (Figure 4-6) from the Regional Planning Commission’s regional housing needs assessment shows that Rye has a slightly greater percentage of “very low income” residents than the rest of the region. It has a lower percentage of low- and moderate-income households relative to other towns in the area. And as one might expect along the coast, the town has a greater percentage of households in the category of “above moderate income.”

Figure 4-6

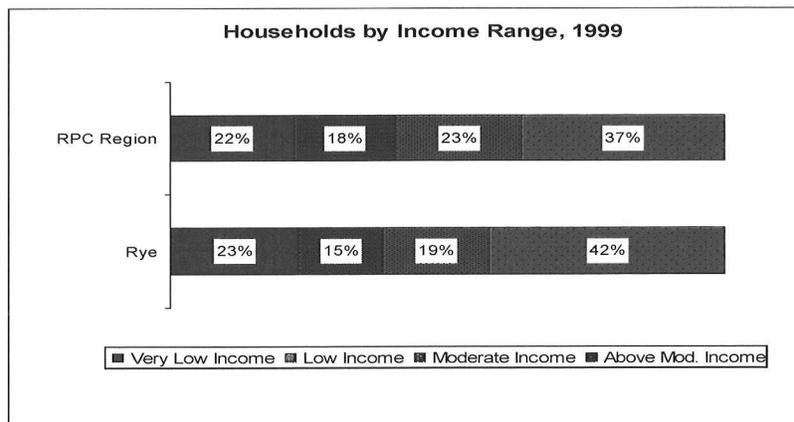


Figure 4-7 lists the median household incomes for the communities in our area, as derived from US Census 2010 data. The calculated home purchase prices that would be considered affordable for those median incomes are also included.

**Figure 4-7**

<b>Maximum Supportable House Prices for Median Household Incomes in Southeastern NH</b>		
<b>Town / Area</b>	<b>Median Household Income, 2010 Census</b>	<b>Max. supportable house price, Based on Census 2010 Median Household Income</b>
Exeter	\$63,142	\$173,640
Greenland	\$75,286	\$207,036
Hampton	\$67,518	\$185,674
Hampton Falls	\$112,417	\$309,147
New Castle	\$80,000	\$220,000
Newfields	\$106,389	\$292,570
Newington	\$78,500	\$215,875
North Hampton	\$75,081	\$206,473
Portsmouth	\$62,191	\$171,025
Rye	\$85,269	\$234,487
Seabrook	\$53,341	\$146,688
Stratham	\$106,591	\$293,125
Region	\$80,477	\$221,312

Source: 2010 US Census

Figure 4-7 shows that a Rye household with a median income of \$ 85,269 in 2010 could afford to purchase a house costing \$ 234,487 at that time. However, the data from Figure 4-4 indicates that the median home price in Rye in 2007-2011 was over \$585,000. This is consistent with NH Housing Finance Authority data indicating a median sales price of \$512,500 in 2012. (See Chapter 4A, Figure 4A-2). Hence, our median income resident can only afford less than half of that price. These figures are a direct reflection of record low mortgage interest rates and recent home buying patterns.

How does one explain the apparent disparities between modest incomes, affordability, and affluence in Rye? The ability to buy a house based on one’s income differs from one’s ability to remain in a house that was purchased long ago when real estate prices were lower. People who established homes in Rye long ago may have long since paid off their reasonable mortgages or inherited the family homestead and now live on modest retirement incomes.

Census 2010 data suggests that Rye is typical of Rockingham County in that 50% to 60% of each community’s residents have been in their homes at least 5 years. Our own 2002 opinion survey breaks these numbers down further as shown in Figure 4-8

**Figure 4-8**

<b>Housing Tenure in Rye, NH</b>	
<b>Years living in Rye</b>	<b>% of total citizenry</b>
0 – 2	8.5 %
3 – 5	14.6 %
6 – 10	15.6 %
11 – 20	20.8 %
20+	32.5 %
Native	8.1 %

Fully 40% of Rye's residents have lived here at least 20 years. More than half of our residents have lived here over ten years. Both of these groups would have purchased their homes well before that 30% home price jump from 1990 to 2000 as well as the modest increases that we have seen in recent years. About a third of us have come to town despite escalating housing and renting prices of the past ten years. Part of this may be contributed to the various types of mortgage loans that were offered in the recent past.

Today's property assessments are based on current home sale prices. These in turn are based on the current prices of land and construction. Today's tax rate is based upon today's revenue requirements. Rye can no longer claim to be a resort, nor do we benefit from a stream of tourist dollars, although we do still have our beaches and the state parks. Our marshes and wetlands are well protected from high risk development. Higher population density, greater demands for services and rising municipal costs have driven up taxes. This has put a strain on all tax payers, especially our oldest residents and those that may be on fixed incomes. As our population gets older, we will continue to experience more increases as the demand for municipal services such as Police, Fire, and EMT services. This will translate into higher taxes. At some point, this will adversely affect property values for all.

Thus we have an affordability conundrum. Within our community, those of modest means who have been here a long time own their homes but are squeezed by property taxes. Those with greater means can afford to move into Town, purchasing properties in a coastal community with amenities. There is little room for today's working families to become our neighbors. There is also a real financial pressure for our oldest and most treasured citizens to be able to stay in their homes comfortably and safely. Diversity has made Rye strong in the past and it is an important part of our future. We need to work to close the gap in these key areas surrounding housing in order to protect our residents.

More than 80% of Rye households are single-family homes. Whereas the preponderance of Rye is zoned single-family residential, there will be little opportunity for new young families to enter the community. Many think this helps to keep a lid on education expenses and also keeps traffic down. In reality, taxes have continued going up and traffic volumes have continued to rise.

There are greater burdens on our Public Safety providers. What is happening is that our population is aging without the vitality of new youth coming into town. Demographers will tell you that a community must remain diverse and have a healthy balance between young and old in order to remain successful for the long term.

The existence of affordable units in Rye is found in pockets of non-conforming, legally existing land uses. Some units are located in a manufactured housing development such as Adam's Mobile Home Park in the town's commercial zone. While mobile and manufactured housing are parts of the affordable housing equation, so too, are single and multi family homes and condominiums.

It is very common for the discussion of "affordable housing" to become synonymous with low-income housing. When this happens, the general public often assumes that there will be drastic increases in housing density, increased education costs and deteriorating neighborhoods. These thoughts could not be further from reality as one is speaking in terms of homeownership. With homeownership come pride, sense of self and respect for oneself and the community as a whole. When considering what is defined as affordable housing in the housing markets that exist today, individuals and families have to earn much more than they did in the past to meet that definition. As of 2013, to afford a home in the \$275,000 to \$300,000 range, income would need to be in the \$75,000-\$90,000 range. We also feel that affordable housing is not just about young people. We should work to continue to expand housing solutions for our town's senior population so that they do not have to leave or be "taxed out" of Town.

The education effort for everyone in town should be the emphasis that affordable housing, frequently called "workforce housing," is geared toward individuals, of all age ranges, that are a part of every community. Police officers, teachers and firefighters are often unable to afford housing in the seacoast but would be valuable neighbors. Who better to have as your neighbor?

Another area of concern regarding diversity in housing opportunities relates to age-restricted housing. This is a particularly important topic for Rye because there is a significant senior population in Town. According to the 2000 US Census reports, Rye's senior population (all residents aged 55 and older) accounts for nearly 30% of the Town's total population. This is about a third more seniors than the regional average. We must work to find creative ways to keep our most treasured senior citizens of our community here in Town.

The federal Fair Housing Act has established guidelines which permit communities to allow discrimination in housing opportunity in favor of senior residents. These age-restricted developments fall into two categories with different requirements.

- The first type is a development in which at least eighty percent (80%) of the units must be occupied by at least one person 55 years of age or older. This type of development must allow at least 20% of the units to be non-restricted. This would raise the possibility that school-aged children could live there.
- The second age-restricted development is a community where all of the units are solely occupied by persons 62 years of age and older. An ordinance allowing this type of development would not allow school-aged children.

Rye does already have a “senior abatement” program on its books to allow senior residents a tax break. However, apparently a number of seniors choose not to take advantage of it. According to the Town assessor’s office, there are 2550 tax cards for residential properties in town. As of 2005, there are 132 elderly exemptions associated with these taxable properties. This means only about five percent of the taxable properties have been granted this form of tax relief. This low rate of participation in the tax relief program may well indicate financial well-being among our elderly neighbors. It could also mean that a number of people have not been made aware of such benefits or purposely choose not to participate in them for their own reasons or that the asset and income limitations for the exemption, which are set by town vote, are too low..

### **4.3 NEXT STEPS**

The following next steps and recommendations are designed to further Rye’s effort to provide needed housing, promote community goals, improve local housing controls, and ensure compliance with relevant state and federal legislation. Every effort should be made to ensure that Rye provides a wide range of housing opportunities for all of its citizens.

We will continue community discussions on the value of affordable housing for Rye; development design as a means to promote a sense of community; and areas of town suited for mixed use zoning. In so doing we will recognize how the results of past decisions have matured and we will open ourselves to new ways of looking at development to be focused more on low impact development for our environment and more accessible and affordable options for all age ranges of our citizenry.

The Rye Planning Board should continue to stay informed with the Workforce Housing Coalition and other similar groups to stay on top of zoning changes, concepts, and ideas.

We will also capitalize on the outside assistance of resources such as the Housing Partnership that has successfully created affordable housing with us and for us in the past and we will encourage developers to do the same.

We will consider other changes to our land use ordinances and regulations. Such changes may include

- Allowing housing density tradeoffs in exchange for land conservation;
- Allowing mixed use with apartments overhead of retail establishments to reduce vehicle-dependent traffic; and
- Providing incentives to prompt developers to want to help build our vision.

## CHAPTER 4A WORKFORCE HOUSING

### 4A.1 INTRODUCTION

In the preceding section of the Rye Master Plan a great deal of information was presented with respect to housing in the community. The housing chapter provided information on population, income and housing trends for the Town, as well as for towns that neighbor Rye. In addition, the housing chapter expressed the goals of the community with respect to maintaining the Town's rural character and providing diversity of housing for residents.

This section of the Rye Master Plan has been prepared to address the land use and housing related ramifications of the passage in 2009 of the Workforce Housing Act (NH RSA 674:58-61). This law establishes a number of performance standards that towns must meet in an effort to expand the opportunity for the creation of workforce housing throughout the state. The salient requirements of the law are discussed below.

For the first time, the new state law defines workforce housing. It is defined as follows:

*“Workforce housing” means housing which is intended for sale and which is affordable to a household with an income of no more than 100 percent of the median income for a 4-person household for the metropolitan area or county in which the housing is located as published annually by the United States Department of Housing and Urban Development. “Workforce Housing” also means rental housing which is affordable to a household with an income of no more than 60 percent of the median income for a 3-person household for the metropolitan area or county in which the housing is located as published annually by the United State Department of Housing and Urban Development.*

RSA 674:58-61 mandates that each community in the state must provide reasonable and realistic opportunities for the development of workforce housing and it also establishes a mechanism for expediting relief from municipal actions which deny, impede, or delay qualified proposals for workforce housing. The law basically has two parts that achieve these goals. The first part requires municipalities that exercise the power to adopt land use ordinances to provide opportunities for the development of workforce housing. The second part establishes a mechanism for expediting relief from municipal actions which deny, impede, or delay qualified proposals for workforce housing. This element of the law is important to understand because in the end case, a community that does not comply with the requirements of the law may be subject to a builders remedy by the court system. This means that the end result of a legal proceeding charging non-compliance with the law can be permission for a developer to build a project completely unconstrained by Rye's zoning laws.

## 4A.2 PROVIDING REASONABLE OPPORTUNITY

The Town of Rye is responsible under the workforce housing statute to comply with two core requirements: (1) workforce housing of some type must be allowed in the majority of land zoned for residential uses; and (2) rental multifamily must also be allowed in some zones. Lot size and density requirements for workforce housing must be “reasonable”.

In 2010 the Planning Board proposed and town voters enacted three zoning amendments which the Planning Board believes brings the town into compliance with the 2009 Workforce Housing Act.

1. Multi-Family Dwelling District: A Multi-Family Dwelling Overlay District was created along the Lafayette Road corridor. The district includes large areas of mostly vacant land located westerly of Lafayette Road. Within this overlay district multi-family dwellings and multi-family developments are permitted subject to a special permit from the Planning Board. At least 20% but not more than 51% of the units in a multi-family dwelling or multi-family development must be workforce housing.
2. Conservation Land Developments (CLDs). CLD’s are now provided for in the Single Residence (SR) and Commercial Districts. In a CLD the density and dimensional requirements of the zoning ordinance may be relaxed in exchange for at least 50% of the land being preserved in perpetuity as open space. At least 20% but not more than 40% of an CLD must be workforce housing.
3. Expansion of Commercial District: In 2010 the Commercial District was expanded westerly towards Greenland to include additional areas of vacant land which might be suitable for CLDs.

## 4A.3 HOUSING NEEDS ASSESSMENT

The Rockingham Planning Commission is required by law to prepare a regional housing need assessment. These assessments have been prepared periodically over the last twenty years with the most recent one being adopted in October 2008. Included below is a table (Figure 4A-1) from this housing assessment that attempts to display the estimated proportionate fair share workforce housing need. The table displays the number of workforce housing units that should be available in Rye based upon Rye’s proportion of the region’s housing supply and the housing costs as defined by the workforce housing law. In the case of Rye, in 2006 there should have been 1,028 housing units that met the thresholds for ownership or rental occupancy outlined in the law. These thresholds for housing values are either \$239,236 or 259,069 for home ownership; the price difference depending upon either a 10% or 20% down payment respectively. For rental workforce housing the gross rent cannot exceed 1,045 per month.

**Figure 4A-1  
Workforce Housing Needs**

A	B	C	D	E	F	G	H	I	J	K
	2006 Housing Units	Regional % of Housing Units	HMFA Median Income (4-person)	HMFA 60% Median Income (3-person)	100% or under MAI: Owner	60% or under MAI: Rental	Total WFH Need	100% or under MAI: Owner	60% or under MAI: Rental	Total WFH Need
Community										
Atkinson	2674	3.2%	\$80,667	\$43,600	987	336	1,323	1,111	378	1,489
Brentwood	1267	1.5%	\$77,333	\$41,800	468	159	627	526	179	705
Danville	1671	2.0%	\$80,667	\$43,600	617	210	827	694	236	930
East Kingston	853	1.0%	\$77,333	\$41,800	315	107	422	354	121	475
Epping	2525	3.0%	\$77,333	\$41,800	932	317	1,250	1,049	357	1,406
Exeter	6563	7.8%	\$77,333	\$41,800	2,423	824	3,248	2,727	928	3,654
Fremont	1489	1.8%	\$80,667	\$43,600	550	187	737	619	210	829
Greenland	1364	1.6%	\$77,333	\$41,800	504	171	675	567	193	759
Hampstead	3626	4.3%	\$80,667	\$43,600	1,339	456	1,794	1,506	512	2,019
Hampton	9870	11.8%	\$77,333	\$41,800	3,645	1,240	4,884	4,101	1,395	5,496
Hampton Falls	839	1.0%	\$77,333	\$41,800	310	105	415	349	119	467
Kensington	769	0.9%	\$77,333	\$41,800	284	97	381	319	109	428
Kingston	2485	3.0%	\$80,667	\$43,600	918	312	1,230	1,032	351	1,384
New Castle	516	0.6%	\$77,333	\$41,800	191	65	255	214	73	287
Newfields	587	0.7%	\$77,333	\$41,800	217	74	290	244	83	327
Newington	321	0.4%	\$77,333	\$41,800	119	40	159	133	45	179
Newton	1691	2.0%	\$80,667	\$43,600	624	212	837	703	239	942
North Hampton	1917	2.3%	\$77,333	\$41,800	708	241	949	796	271	1,067
Plaistow	2999	3.6%	\$80,667	\$43,600	1,107	377	1,484	1,246	424	1,670
Portsmouth	10516	12.5%	\$77,333	\$41,800	3,883	1,321	5,204	4,369	1,486	5,855
Rye	2715	3.2%	\$77,333	\$41,800	1,003	341	1,344	1,128	384	1,512
Salem	12068	14.4%	\$80,667	\$43,600	4,456	1,516	5,972	5,014	1,706	6,719
Sandown	2123	2.5%	\$80,667	\$43,600	784	267	1,051	882	300	1,182
Seabrook	4500	5.4%	\$85,833	\$46,400	1,662	565	2,227	1,870	636	2,506
South Hampton	334	0.4%	\$85,833	\$46,400	123	42	165	139	47	186
Stratham	2774	3.3%	\$77,333	\$41,800	1,024	348	1,373	1,152	392	1,545
Windham	4821	5.7%	\$80,667	\$43,600	1,780	606	2,386	2,003	681	2,684
	<b>83877</b>	<b>100.0%</b>			<b>30972</b>	<b>10537</b>	<b>41509</b>	<b>34847</b>	<b>11855</b>	<b>46702</b>

A RPC Community  
 B Total number of housing unit, (single, multi, and manufactured), OEP estimate.  
 C Percentage of the Region's total housing units.  
 D HUD Fair Market Rent Area's Median Area Income (MAI) for a 4-person family. Amount called out in SB 342  
 E 60% of HUD Fair Market Rent Area's Median Area Income (MAI) for a 3-person family. Amount called out in SB 342  
 F 2006 need for workforce housing (non-rental), affordable to families make 100% of the MAI for a 4-person family, or below, in 2006. Does not take a communities existing Affordable workforce housing into account.  
 G 2006 need for rental workforce housing, affordable to families make 60% of the MAI for a 3-person family, or below, in 2006. Does not take a communities existing Affordable workforce housing into account.  
 H Total of ownership and rental need (F + G).  
 I 2015 projected need for workforce housing (non-rental), affordable to families make 100% of the MAI for a 4-person family, or below, in 2006. Does not take a communities existing Affordable workforce housing into account.  
 J 2015 projected need for rental workforce housing, affordable to families make 60% of the MAI for a 3-person family, or below, in 2006. Does not take a communities existing Affordable workforce housing into account.  
 K Total of ownership and rental projected need in 2015 (I + J).

A review of Rye assessment files supplied by the assessor’s office show that in December of 2008 there was one sales record (\$250,000). That met the housing value requirements for workforce housing and this sales record showed that it was accomplished between family members. In addition, there were two verified sales of manufactured housing without land that fell within the threshold limits for workforce housing. For 2008, there were three verified sales out of 84 sales that met the criteria for workforce housing in Rye. This evidence is not definitive in supporting the argument that Rye is not presently meeting its workforce housing need, but it is a strong indication that 1,028 workforce housing units probably do not exist in Town and appropriate efforts need to be taken to comply with the workforce housing statute.

**4A.4 ECONOMIC FACTORS**

Economic factors particular to the location of Rye have a dramatic impact upon local housing prices. Land costs in all the ocean-front communities in Rockingham County have a significant impact upon housing cost. These costs cannot be overlooked in the efforts to provide reasonable opportunity for workforce housing. As the table (Figure 4A-2) below shows the ocean-front communities that are not served by municipal water and sewer facilities have median housing costs well in excess of other communities in Rockingham County. For the Town of Rye, the median sales price for a home using 2012 sales data was \$512,500, twice as expensive as for Rockingham County as a whole.

**Figure 4A-2**

<b>Home Sales Data, 2012</b>		
<b>Town/Area</b>	<b>2012 All Home Sales</b>	
	<b>Med Sales Price</b>	<b>Sample Size</b>
East Kingston	\$275,000	31
Exeter	\$252,000	191
Greenland	\$360,000	48
Hampton	\$284,000	202
Hampton Falls	\$385,000	29
Kensington	\$375,000	16
New Castle	\$972,500	21
Newfields	\$395,000	19
Newington	\$530,000	3
Newmarket	\$239,900	86
North Hampton	\$405,000	44
Portsmouth	\$340,000	255
Rye	\$512,500	64
Seabrook	\$265,000	59
Stratham	\$322,000	118
<b>Rockingham County</b>	<b>\$255,500</b>	<b>3118</b>
<b>New Hampshire</b>	<b>\$205,000</b>	<b>11693</b>

Source: NH Housing Finance Authority

Note: Calculations based on sample sizes fewer than 50 are considered highly volatile.

These costs present the Town with a challenge in meeting its statutory responsibility to provide reasonable opportunity for the creation of workforce housing. There are economic conditions in the ocean-front communities that are different from conditions faced by other New Hampshire communities.

These conditions are further displayed by information tracked by the NH Department of Revenue Administration. The Figure 4A-3 below provide equalized valuations of taxable land for Rockingham County communities. As best illustrated on the graph titled Equalized Value per Capita 2012, Rye land has significantly more value than nearly all the other communities in Rockingham County. In fact, only New Castle and Newington have more value of taxable property per capita than Rye in the entire county.

**Figure 4A-3**

<b>Property Valuation and Taxes - 2012 Rockingham County, NH</b>					
East Kingston	2,363	\$ 291,478,979	\$ 123,351	\$ 23.65	159
Exeter	14,354	\$ 1,604,981,473	\$ 111,814	\$ 24.60	172
Greenland	3,586	\$ 669,430,920	\$ 186,679	\$ 13.68	39
Hampton	14,868	\$ 2,813,332,466	\$ 189,221	\$ 17.21	62
Hampton Falls	2,235	\$ 434,772,900	\$ 194,529	\$ 19.72	89
Kensington	2,121	\$ 293,560,055	\$ 138,406	\$ 22.10	129
New Castle	967	\$ 636,733,622	\$ 658,463	\$ 6.38	5
Newfields	1,678	\$ 259,375,642	\$ 154,574	\$ 21.90	125
Newington	753	\$ 971,307,945	\$ 1,289,918	\$ 7.68	7
Newmarket	8,950	\$ 718,640,197	\$ 80,295	\$ 26.23	189
North Hampton	4,324	\$ 1,016,338,240	\$ 235,046	\$ 15.92	50
Portsmouth	21,206	\$ 4,174,795,440	\$ 196,869	\$ 16.33	53
Rye	5,324	\$ 1,770,040,629	\$ 332,464	\$ 10.55	17
Seabrook	8,697	\$ 2,597,699,164	\$ 298,689	\$ 13.67	38
South Hampton	813	\$ 141,919,372	\$ 174,563	\$ 16.65	55
Stratham	7,245	\$ 1,111,316,215	\$ 153,391	\$ 20.46	98
Rockingham County	295,608	\$ 40,557,292,929	\$ 137,200	\$ 19.69	n/a
New Hampshire	1,318,000	\$ 154,348,551,055	\$ 117,108	\$ 20.46	n/a

The information from the preceding tables illustrates the difficulty the community will face in overcoming the land cost variable as it effects the creation of workforce housing.

**4A.5 ENVIRONMENTAL CONSIDERATIONS**

Beyond the economic considerations detailed above there are substantive environmental concerns in Rye that impact the provision of reasonable opportunity for the creation of workforce housing. The most important of these is the prevalence of constrained soils in the remaining

undeveloped land in Town. Rye has tidal marshes, freshwater, wetland, shallow-to-bedrock soils as well as soils constrained by seasonal high water levels located one to four feet from the surface. These conditions are present on many of the parcels that remain to be developed and add a layer of complexity that often results in additional costs to the development process.

#### **4A.6 ECONOMIC CONDITIONS BEYOND RYE'S CONTROL**

Even though Rye has amended its zoning regulations to provide reasonable and realistic opportunities for workforce housing, economic conditions beyond the control of the Town may constrain the economic viability of workforce housing development.

An important economic condition is the high value of land in Rye; i.e., the cost of land to a housing developer. Although comparative data of land values per se in the region is not available, it is no secret that land values in Rye are among the highest in the region and state. When developers pay a premium for land, they must factor that into their overall development plan and budget. One way to increase housing types and varieties is to allow the flexibility in our zoning so that density can be considered along with other key low impact development concepts. This will keep some new home prices down and make them affordable to more people.

A second important economic condition arises from the difficulty (and resulting expense) of developing the remaining vacant land in Rye. Most, if not all, of the "good land" in Rye has been developed. The larger vacant land parcels which remain generally have difficult soils; either shallow to ledge or with seasonally high water tables (or both).<sup>4</sup> Several parcels have limited frontage and wetlands inter-dispersed with upland soils in patterns which make it difficult to find large contiguous areas of land where streets and housing may be platted.

While there are many internal and external challenges, our Town and its residents will continue to remain positive with a keen focus on our past and an open and inclusive vision for our future.

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<sup>4</sup> Rye has no public sewage outside of the fully developed Rye Beach – Jenness Beach coastal areas. The Mobile Home Park on Route 1 in Rye is connected to the Portsmouth sewerage system via a private force main which runs along Route 1.

## CHAPTER 5 - TRANSPORTATION

### 5.1 VISION

We recognize that –

- Increased knowledge of the environmental consequences of how we use energy is pushing us to re-think and support other options for transportation;
- Our municipal services are mainly concentrated in the center of Town while our population is largely de-centralized; and
- Significant tourist and second-home traffic will remain a seasonal challenge for residents.

Recognizing the changes in our environment, we hold the following as part of our vision for Rye's future.

- Whenever possible we will provide multiple safe and efficient transportation alternatives for its residents and visitors.
- Our children will increasingly walk or ride their bikes safely to school.
- Adult residents will increasingly take advantage of environmentally sound travel options such as cycling, ridesharing and using public transportation.
- Senior and disabled residents will be enabled through expanded transportation options.

All transportation projects in Rye will be undertaken with an eye to increasing safety, protecting our natural resources and preserving or enhancing our sense of rural character.

We will maximize safe, efficient and effective movement of people and goods into, around and through the town, connecting with the wider transportation network.

### 5.2 OVERVIEW

Rye has approximately 54 miles of streets, roads and highways with one being added as late as March 2012. Although the growth of the region and increased use of the Seacoast is attracting traffic, for now the network of town roads appears adequate to serve the future growth of vehicular traffic in the community without significant improvement. In the recent past there have been ongoing efforts to improve our roads to accommodate more pedestrian and bicycle traffic. These efforts will continue. Rye's town roads are an important component to the Town's rural character and Ocean Boulevard (NH-1A) and a portion of Wentworth Road (NH-1B), which is state owned, and over which we have no jurisdiction are important parts of Rye's scenic coastal character as well.

Most of Rye's main roads were laid out along the ridges surrounding the wetlands during colonial times. Most have been improved over time. They serve as both streets for the many residences located along them and highways for those passing through. The majority of the roads in town, including the primary routes, are in good-to-fair condition with minor

work required on some to fix surface cracking or other similar maintenance issues. There are a few sections that need more extensive work, Figure 5-1 shows maintenance responsibilities for Rye’s roads and Map T-1 shows road classifications.

**Figure 5-1**

<b>Road Maintenance Responsibilities in Rye, New Hampshire</b>		
<b>Responsible for Maintenance</b>	<b>Road Segment</b>	<b>Mileage</b>
State-maintained primary highways	Ocean Boulevard (1A) along the coast Lafayette Road (US 1) a portion of Wentworth Road (NH 1B)	11
State-maintained secondary roads	Bracket Road, from Pioneer to IA Marsh Road small portion of Breakfast Hill Road	3
Town-owned and maintained roads	most other in-town roads New residential subdivision streets that are turned over to the Town become Class V roads once they become public	41

The bridges in Town are owned and maintained by the State, with the exception of the Harbor Road Bridge which is owned and maintained by the Town. The most recent to be rebuilt is the Seavey’s Creek Bridge which was completed in 2010.

**5.3 Traffic Flow and Travel Pattern**

Most trips in or out of Rye are either: coming from or going to Portsmouth; to the north; or US-1 to the west. Such trips include work, shopping and entertainment trips of most Town residents as well as the bulk of seasonal traffic headed to the beaches or merely passing through on Ocean Boulevard. The orientation of Rye’s principal traffic artery (i.e., Washington Road to Wallis Road to Sagamore Road) is south-to-north. Rye’s natural features have limited points of access to the west to Wentworth Road, Foyes Corner, Lang Road, Washington Road at Breakfast Hill and South Road.

The Town of Rye, the Rockingham Planning Commission (RPC), the New Hampshire Department of Transportation (NH DOT), and other agencies have monitored traffic volumes over the years at many locations throughout Rye. More information is available at [www.nhdot.gov](http://www.nhdot.gov).

The roadway network in Rye is, for the most part, well within its functional capacity. Occasional congestion does occur, primarily during the summer months on the route to and from the beaches. Two exceptions of note have been addressed; Foyes Corner: This intersection was a safety and capacity concern. Previously it was a three-way-stop controlled intersection with odd approach angles. A project was completed by the NH Department of Transportation to construct a roundabout.

Pioneer Road (US 1A): Pioneer Road is designated as a Scenic Byway. The road is controlled by the State and its shoulders have been upgraded on the roadway to better and more safely serve the significant bicycle traffic that frequents the area.

Infrequent and inconsistent traffic count data makes it difficult to determine the root causes of traffic volume increases; they may be attributed to several different general possibilities:

- *Diversion to alternative routes due to congestion either within Rye or on roads outside of Rye:* For instance, congestion in Seabrook or Hampton may cause fewer people to travel the length of Ocean Boulevard, using alternate routes such as I-95 to Ocean Road to enter Rye via Lang Road or I-95 to US-1 to enter Rye via Elwyn Road.
- *Changes in where people work:* During the time period covered by these traffic counts, Pease Tradeport had significant changes in employment levels as did the City of Portsmouth. People's work destinations subsequently change as well.
- *Shifting travel destinations for tourists:* The escalation of gas prices, for example, will impact traffic volume.
- *Count discrepancies:* If a traffic volume count occurred during a week where travel was higher or lower due to a non-recurring event or some other external factor or if a counter malfunction occurred, counts would be significantly affected.

Lang Road is already carrying increasing traffic volumes as it becomes more of a primary access point between Rye and Portsmouth. Mill Road/West Road may also show increased volumes if it is used as an alternative to traveling on US-1. Some conflict has already arisen as a result of truck traffic that much travel local roads in order to access businesses in Rye and surrounding communities. However, the Rye road system would not generally be considered an efficient alternative for drivers not already destined for Rye.

To limit through truck traffic, the Town can place limits on some roadways under certain conditions as long as reasonable alternative routes exist. In order to assure that trucks use the proper roads, the town should enforce RSA 47:17, Section VIII "Traffic Devices and Signals".

The interrelationships between population growth, employment patterns, and land use ultimately affect transportation patterns and frequency. Dispersed housing contributes to lengthy commutes in the Seacoast Region. Consistent with national trends, vehicle miles traveled and total vehicle trips have increased at rates that are two or three times faster than either population or housing growth. The projected growth in the region, and the likelihood of continued pattern of dispersed land use, foreshadows a continued rise in the demand for the travel for the foreseeable future.

The vast majority of Rye residents drive to work alone, although a small percentage carpool. Public transportation is also minimally used for commuting probably due to the fact that there is no fixed-route service with destinations in Rye.

## 5.4 TRANSPORTATION OPTIONS

Bicycle travel in Rye is primarily recreational at this time. Rye has one paved, off-road bicycle path in the region. This path runs adjacent to NH-1A from the bridge at Berry Brook estuary south through Odiorne State Park. It rejoins the roadway just north of Wallis Sands Beach.

There is significant bicycle transportation planning going on at the state and regional levels. One of the primary goals of New Hampshire's Statewide Bicycle and Pedestrian Plan is to recognize, support and encourage bicycling and walking as alternatives to motorized forms of transportation. The State's plan includes a "Statewide Bicycle Route System" which was adopted as the most suitable network of existing roads to serve the needs of inter-regional bicycle trips. NH-1A is part of that state bicycle network.

In addition there is a regional bike network, Seacoast Area Bicycle Routes (SABRE), which complements the state system with local roads that are considered bicycle-friendly within communities. It provides loop routes as well as connections with other towns. Rye's Washington, Mill/West, Grove, Central, Cable, Wallis and Sagamore Roads provide connections between State-identified routes NH-1A and NH-33, and established routes with lower vehicular volumes in other seacoast towns.

Driving alone is expensive. It also contributes to increased traffic congestion and air pollution. For the purpose of this document, public transportation is defined as any transportation service available to the general public, whether it is publicly or privately funded. It makes efficient use of our existing road network, carrying passengers that otherwise might be driving their own vehicles. It also offers social benefits by providing a reliable means of travel for those who are unable or otherwise choose not to drive themselves.

There is currently no year-round fixed-route transit service within the town of Rye. Portions of COAST (Cooperative Alliance for Seacoast Transportation) bus routes in Portsmouth pass within walking distance of some residential neighborhoods and could be reached by residents, if desired.

To help commuters cut costs and to reduce traffic congestion and air pollution, the NH DOT has constructed 25 park and ride lots throughout the State. The Portsmouth Park and Ride on NH-22 at I-95, Exit 3 is the State's largest facility of this type. It has a 975-car capacity and bike racks. Part of the reason for this well-used lot's success is its relationship to the C&J Trailways and COAST bus systems. The convenience of these services allows users to link bus travel with Logan Airport, the metropolitan Boston public transportation system, and the Downeaster Train, serving Exeter, Durham and Dover. On average the lot is filled to 64% capacity, a daily use of roughly 628 cars. This park and ride is well situated to serve Rye residents who commute via I-95.

NH Rideshare is a free commuter matching service provided by the NH DOT. It facilitates commuters finding alternative ways to travel to and from work. By using Geographical Computer Matching, it provides commuters with information and assistance about carpools, vanpools, buses, and trains. Residents register with the NH Rideshare Program at <http://www.nhrideshare.com>.

Rye currently has two demand-response transportation options for its elderly residents. Users may call Lamprey Health Care for transportation assistance. In addition, the local volunteer organization Rye Senior SERVE (Serving Edler Residents through Volunteer Efforts) also provides transportation services for Rye's elderly population.

For many, the roads of Rye are part of the rural character worthy of preservation as evidenced by the town's enactment of the scenic roads provision of RSA 231:58. Those roads which are existent at the time the warrant article was passed in 1973 are scenic roads.

In Rye, Routes 1A and 1B together comprise one of New Hampshire's 14 Scenic and Cultural Byways.

Additional transformation can be found on the following State of New Hampshire web sites.

<http://www.NHDOT.gov>

<http://www.NH.GOV.../Rye.pdf>

<http://www.NH.GOV/DOT/ORG/OPERATIONS>

## **5.5 NEXT STEPS**

We will maximize the safe, efficient and effective movement of people and goods into, around and through town, connecting to the wider transportation network.

We will decide upon the need for a comprehensive and systematic transportation needs assessment. This should address:

- safety issues on NH 1A and other roads;
- transportation needs for our senior and disabled residents;
- the itemization of pedestrian and bicyclist needs;
- sustaining the semi-rural character of Rye's roads with traffic calming measures;
- the identification, inventory and protection of existing scenic vistas;
- the effects of cut-through and truck traffic; and
- the demand for fixed-route public transportation stops in Rye.

We will minimize transportation changes that promote automobile usage or increased speeds. Any and all chapters will be made with full consideration given to and mitigation of environmental impacts;

We will continue to encourage and support volunteer and public transportation alternatives for senior citizens and disabled residence;

We will ensure that new housing developments will be sensitive to residents' access to services;

We will pursue funding options for sidewalks that will connect the new safety building, the library, the elementary and junior high schools. One possibility to pursue is the availability of Federal Transportation Enhancement Funds;

We will pursue funding options for shoulders along route NH 1A and Pioneer Road to improve bicycle safety.

We will pursue possible changes to Rye's zoning ordinance and land use regulations as they relate to transportation. For example:

- Our consideration of adding mixed use zoning and in-town retail possibilities will help shift our mindsets by offering new opportunities for local shopping. Such changes would reduce through and out-of-town consumer traffic. This would also offer an aspect of sustainability so that Rye residents are not limited by the zoning decisions of other communities.

We will promote the implementation of context-sensitive solutions to any roadway improvements. This could include the use of access management, traffic calming, and other techniques.

We will consider Rye's options for limiting through truck traffic. This may include time-of-day, seasonal or tonnage limits.

We will prioritize the sections of older roads requiring rebuilding due to drainage needs or inadequate initial construction standards and we will continue participating in US-1 Corridor planning efforts. We will continue to look at all access roads into and out of Rye.

We will support and promote both fixed-route and demand-responsive public transportation services, as well as, support and promote the usage of both the Portsmouth Park and Ride facility and the NH Rideshare Program.

We will seek improved route connections to our wider regional transit networks.

We will decide upon the most timely and relevant of the transportation recommendations from the regional Route 1A/1B Scenic Byway Corridor Management Plan, and act accordingly. This will require considering the following:

- Identifying areas with severe safety problems and/or demonstrated parking shortages and develop a plan for expanding or relocating parking while minimizing impact on surrounding area characteristics.

- Designated roads should have 3 foot wide paved shoulder, appropriate signage and roadway strips designating should as bike/pedestrian facility. Areas identified as heavy in pedestrian traffic should have crosswalk improvements.
- Work with the State to conduct a feasibility study to identify strategies for developing bike/pedestrian ways along stretches of Route 1A/1B where 4-foot shoulders are not feasible.
- Installing bike racks and benches at key points in corridor, i.e., state parks, beaches, scenic overlooks, etc.
- Exploring the possibility of developing and printing a Seacoast bicycle map, to tie into any future statewide bicycle map and also show walking trails.
- Install signs, sheltered waiting areas and benches at key stops along existing transit routes (Pursue private and/or federal transportation funds).
- Utilize existing publicly-owned parking areas (i.e., schools, municipal lots) and pursue the cooperation of private sector in allowing a portion of their parking lot to be used for seasonal Park & Ride or stop for trolley service. Identify potential funding sources.

## CHAPTER 6 – NATURAL RESOURCES

### 6.1 INTRODUCTION

Natural resources impact development in many ways. Resources such as wetlands, forests and shorelines place limitations on development. Similarly, development impacts natural resources. Development can affect the quantity and quality of drinking water, the condition of soils, and the wellbeing of wildlife and plant life. The balance between preserving our natural resources and developing our land is delicate and a vital function of long-range planning. The consideration of development and natural resources and the associated social and economic implications give rise to the following challenging questions:

- What are the economic, environmental and social costs and benefits of our long-term planning for growth?
- How will the town preserve its working landscape of horse farms, open areas, saltwater marshes and forests in the face of population growth and development pressures?
- How can our natural resources be utilized for recreational and educational opportunities, without degrading the very resources we seek to protect?
- How does the day-to-day work of town Boards and Commissions affect the longer-term management of our natural resources?

To discuss these questions, we need to appreciate the significant threats to natural resources, we need to evaluate the current data available, and we need to utilize the planning and legal tools available for management of natural resources.

We must also consider the views of the community, as expressed through the Master Plan Visioning Process, town surveys, and town warrant articles, as we seek to formulate goals and strategies for natural resource management. This chapter will begin with a discussion of the views expressed by the members of the community, followed by a discussion of threats to natural resources and an analysis of existing resources. We conclude with recommendations for goals and strategies for natural resource management.

The following table summarizes the main issues raised and includes representative comments from individuals who attended the sessions.

### 6.2 Master Plan Visioning Process

The opinions expressed in the visioning sessions demonstrate that the many residents of Rye recognize the challenges they face in addressing natural resource concerns and can formulate a number of solutions to address these issues. Many of the concerns mentioned have been worked on and improved, such as, keeping our beaches clean, maintaining our scenic views, improving our marshes and wetlands, preserving more open space, increasing our bike paths, providing senior housing and repairing the sidewalks on Cable Road. These visioning sessions have provided benefit for the Planning Board and should be continued in the future.

**Figure 6-1**

<b>Main Issue Summary</b>	
<b>Issue</b>	<b>Comments from Individuals Who Attended</b>
Beaches/ waterfront	<ul style="list-style-type: none"> <li>• Keep beaches clean</li> <li>• Control dogs on the beach, ban dogs from the beach</li> <li>• Reclaim harbor, Jenness Beach, Wallis Sands for Rye</li> <li>• Encourage non-motorized craft on designated waterways and roadways, ban jet skis</li> </ul>
Wastewater disposal issues	<ul style="list-style-type: none"> <li>• Concern about discharge into the ocean, silt, sewer system and fresh water management</li> <li>• Question capacity of existing resources to support increased population</li> </ul>
Air pollution/ Noise pollution	<ul style="list-style-type: none"> <li>• Concern about locally, regionally, and nationally generated pollution</li> </ul>
Scenic views/ Quality of life	<ul style="list-style-type: none"> <li>• Maintain and enhance scenic views</li> <li>• Natural resources enhance quality of life</li> <li>• Open space creates atmosphere of small town</li> <li>• Cell tower effects on natural resources/aesthetics</li> </ul>
Wooded lots	<ul style="list-style-type: none"> <li>• Purposes are viewing, noise mitigation, issue of burning wooded lots/forest management</li> </ul>
Wetlands	<ul style="list-style-type: none"> <li>• Need for stricter enforcement of wetlands regulations</li> <li>• Let Rye be more strict than the NHDES requirements</li> </ul>
Marsh lands	<ul style="list-style-type: none"> <li>• Enhance the flushing of marshlands/ roads issue</li> </ul>
Open space	<ul style="list-style-type: none"> <li>• Open space should be visible/frontage</li> <li>• Consider incentives for private owners</li> <li>• Allow for creativity in site design/subdivision for open space</li> <li>• Investigate real estate transfer tax to “Rye land bank” for purchase and maintenance of open space</li> <li>• Consider seniors leaving their homes and selling land for development—need empty nest housing</li> <li>• Continue funding for open space</li> <li>• Restrict back lot development</li> </ul>
Wildlife corridors/greenbelts	<ul style="list-style-type: none"> <li>• Maintain wildlife corridors to provide habitat, visual &amp; sound barrier, and wind protection</li> <li>• Monitor development until wildlife corridors are clearly established and protected</li> <li>• Control mosquitoes</li> <li>• Improve pest control issues such as ticks/deer</li> </ul>

Issue	Comments from Individuals Who Attended
Paths / sidewalks	<ul style="list-style-type: none"> <li>• Repair sidewalks on Cable Road.</li> <li>• Consider need for bikeways, bike paths</li> <li>• Need walkways to school, library</li> <li>• Prefer permeable surface paths for bikes, runners, cross-country skiing, walking.</li> <li>• Link the two schools with paths</li> </ul>

**6.3 IDENTIFYING OUR MOST IMPORTANT NATURAL RESOURCES**

It is important to identify our most important natural resources. What makes us different from other New Hampshire towns? First, our beaches are probably the most important natural resource. Second, Rye is known for its rural town concept and abundance of open space. Our citizens have supported the extra cost of providing open space. Third, since Rye is located in Rockingham County, one of the fastest growing counties in the state of New Hampshire, having an adequate water supply is very important for the future growth. Our water system is adequate and is supplied by town wells.

**6.4 UNIQUE COASTAL RESOURCES**

**A. Description of Beaches**

Rye has six beaches and sand dune areas totaling 87 acres starting at the town line of North Hampton, as described under C. The dunes areas have been developed for many years, but the beaches appear to be well protected from development by the town’s floodplain and wetland regulations and by the NH Wetlands Board.

**B. Protecting Beach Access**

Accesses to the beaches have been an area of concern for many years and some of the access points have been lost to the Town and public due to court battles, encroachments and lack of maintenance. In 2011, a study was conducted on beach access points and a Power Point presentation was presented to the Selectmen on two different occasions. See minutes of the Selectmen meetings to learn more about the presentation on the Town Website at [http://www.town.rye.nh.us/pages/RyeNH\\_SelectMin/BOS\\_Minutes\\_9-26-11.pdf](http://www.town.rye.nh.us/pages/RyeNH_SelectMin/BOS_Minutes_9-26-11.pdf).

**C. Balancing The Right of all who use the Beach**

The Selectmen approved signage to be placed at the approved beach access points located at

- **Bass Beach** – Access onto Bass Beach on the town line of Rye and North Hampton and there are two signs, one to name the beach, the other for “Beach Access”,

- **Philbrick's Beach** – Access onto Philbrick's Beach south of the Beach Club and there are two signs, one to name the beach and the other for “Beach Access”;
- **Sawyer’s Beach** – This beach has two (2) signs for this beach at both ends of the beach; each location has two signs, one to name the beach and the other for “Beach Access”. This beach is town owned. Parking is limited to residential beach permits only;
- **Jenness State Beach**-is partly owned by the state and partly by the Town. The portion owned by the State has a parking lot and posted by the State;
- **Jenness Beach (the Town owned portion)** – has multiple access points as follows;
  - E Street** – Foot path across from Rye General Store and has two signs, one for the access name and the other “Beach Access”;
  - F Street** – Has access to the beach at the end via pedestrian foot traffic only.
  - G Street** – Originally designated as a Beach Access than later discovered this is a private Right-of-Way and the signs were removed; although the residents do not mind foot traffic only to the beach.
  - Cable Road** – Is a public road and has access to the beach at the end with beach permit only parking along the side. There are two signs at this location, one to name the street and the other for “Beach Access”;
  - Sunrise Path** – Is a public right-of-way, gravel path with access to the beach and parking on one side. There are two signs at this location, one to name the street and the other for “Beach Access”;
  - Old Beach Way** – Is a public right-of-way, gravel path with access to the beach and with beach permit parking on one side. There are two signs at this location, one to name the street and the other for “Beach Access”;
  - Old Town Way** – Is a driveway for the residents and a footpath only for the area as per Superior Court order, September Term, 1986, No. E-275-91. There is no signage at this access.
- **Foss Beach** – is a long stretch of beach that runs from Rye Harbor State Park, along Ocean Boulevard just past Washington Road. There are wooden ramps to access the beach and there are two signs along the beach, one to name the beach and the other for “Beach Access”;
- **Concord Point** – Just north of Concord Point Road is a gravel road for beach parking and has two signs at this location, one to name the location, the other for “Beach Access”;

- **Wallis Sands Beach is partly owned by the state and partly owned by the Town. The portion owned by the State has a parking lot and posted by the State;**
- **Wallis Sands Beach (the Town owned portion)** – May be accessed from Wallis Road. There are two signs at this location, one to name the street and there is parking by beach permit only and the other sign for “Beach Access”;

*(It should be noted that Cable Road and Wallis Road no longer have extensions. These were omitted by the 911 Committee for safety reasons)*

There are many other small access points to the Atlantic Ocean along Ocean Boulevard which is a state highway, maintained by the state. These access points are mostly paved turn off's and some have either one or two hour parking limits.

During the past 10 to 15 years, there has been a growing concern over the ownership and increased use of the beaches that are not owned by the State of New Hampshire and are fronted by both seasonal and year round residences. Eventually, this situation ended in a court case brought before Superior Court in 1999. The outcome of case #95-E-0455, G. William Purdy and others, versus the Attorney General of New Hampshire was that the limit of the public's rights to the beach under the Public Trust Doctrine is mean high tide.

It is important that all parties, the Town of Rye, the beachfront property owners and the public cooperate so that all may enjoy the use of the beaches without infringing on the rights of other parties.

#### **D. Rye Harbor**

In addition to our beaches, another important natural resource and tourist attraction is Rye Harbor. It is an inlet from the ocean that has been improved by the addition in 1939 of jetties consisting of large granite blocks. Dredging this location gives added protection from the open sea to our fishing and recreational boats.

Rye Harbor also has a long tradition of providing employment opportunities such as lobstering, fishing, whale watching, boat maintenance, and other jobs typical of a small seaport.

There are 160 moorings with 53 designated for commercial fishermen. These commercial moorings can only be transferred to other commercial fishermen. As of 2013, there is a long list of approximately 170 individuals waiting for available moorings. The management of Rye Harbor is provided by the New Hampshire Port Authority under the auspices of the State of New Hampshire.

**E. Coastal Storm Concerns; Protecting Rye Citizens from the affects of Global Warming and increased coastal storms**

Our ocean frontage may be our most important natural resource, but it also presents a great risk to our citizens with damage to our seawalls, shore roads and beachfront properties. With concerns about global warming and increased coastal storms, we can expect conditions that we faced during the famous storm of 1978 to occur again, and we must be prepared for it.

**F. Rye Floodplain**

Rye is blessed with an abundance of shoreline which adds to its attractiveness as a place to live or just spend the day. The shoreline with its beautiful beaches brings along a risk of coastal flooding during storm events. These storms will take the form of an old fashioned nor'easter, tropical hurricane, or just a large rain event.

Rye's 500 plus homes located within the floodplain or the High Hazard Flood Area are at risk of flooding during these events. The High Hazard Flood Areas are shown on FIRM maps developed by FEMA as part of their flood insurance program. The flooding here in Rye may take a couple of different forms. The first will be a tidal surge or waves that wash over the protective dunes or barriers up to one foot deep and then flowing inland to the marshes. This sheet flow will exert forces on the foundations of buildings and cause erosion of the barriers and the land around buildings in its path. The other will be a rise in the water level of the marshes which will cause homes along the edge of the marshes to become submerged or maybe even float off their foundations.

In 1988 Rye adopted a "Floodplain Building and Development Ordinance" to help mitigate these hazards. The ordinance requires that all new construction or substantial improvements be raised above and protected from the flood event. Homes built to the requirements of the floodplain ordinance will be better suited to withstand the effects of a flood event.

Rye citizens may need to plan on maintaining the barriers that keep the ocean from causing more damage. Many of these barriers are under private ownership with very little oversight. Others take the form of the rubble rock barriers (shale piles) that are along Ocean Boulevard. These shale barriers were built by the State and are maintained by both the State and the Town. Considering the value of real estate that is protected by these barriers it may be time for the Town to take a more active role in their construction and maintenance. It is also important to insure that construction does not block the natural flow of storm waters from the marshes to the ocean. Investigations may need to be performed to see if any changes to the flow patterns during a flood event are needed to mitigate elevated water levels.

### **G. Areas of Scenic Importance**

The State Coastal program has identified seven (7) areas of coastal scenic importance in Rye. These seven areas include the Isles of Shoals, Rye Harbor, and all scenic sections of Ocean Boulevard. These areas appear protected from development which would encroach upon scenic attractions by local and state wetlands and the floodplain regulations and by state ownership of Rye Harbor, Odiorne Point, the Ocean Boulevard right-of-way and all ledge below the mean high tide line.

### **H. Other Unusual Areas**

The state coastal program has also identified eight areas in Rye that have uniqueness or character which set them apart from other categories of coastal resources. These areas are:

1. Little Harbor
2. Berry's Brook Estuary (i.e. the Berry's Brook-Bellyhack ecosystem)
3. Fairhill-White Cedar Swamp
4. Odiorne State Park
5. Eel Pond/Cedar Swamp Run
6. Burkes Pond (and Browns Mill pond)
7. Rye Ledge
8. Isles of Shoals

These areas all appear well-protected by the state and local regulations previously described herein. The exception is Berry's Brook, which is a unique ecosystem threatened with development encroachment from within the Portsmouth portion of the watershed.

## **6.5 PRESERVATION OF OPEN SPACE**

The majority of Rye Citizens support the preservation of our rural town. This was evident when Rye voters enthusiastically supported the purchase of Parson's Park and Parson's Woods. Again in 2003, the five (5) million dollar bond issue was approved, and the Open Space Fund was established. By the close of 2012, we will have completed the purchase of fourteen (14) easements, thereby protecting over 238 acres for \$4,414,000. We have also purchased more than 200 acres for \$4,684,900. This was accomplished by leveraging other owned land and grants from the capital NOAA, federal wetlands, and farm and ranch land grants. This means that the conservation land protected is over 1,030 acres. We will have received more than \$4,100,000 in gifts of lands, donations, and grant assistance.

There are additional Rye land owners who wish to grant conservation easements on their farmland and open space. Since our original five million dollar bond issue is mostly spent or committed, do Rye Citizens want to continue this successful project?

**A. The Goss Farm**

The Goss Farm, (corner of Harbor Road and Ocean Boulevard), has been owned and farmed by the same family since the 1700's. The property was purchased in 2010 for the Town of Rye with funds from the Town and assistance from the U.S.D.A National Resources Conservation Service and through a farm and ranch land program award. Our Conservation Commission manages the nine (9) plus acre property, and a conservation easement is held by the Rockingham County Conservation District. There is one structure on the property, the historic Goss Barn that is listed in the New Hampshire State Register of Historic Places and is in need of restoration. A new metal roof was installed in 2012, and there is also foundation, structural and drainage work to be done. The necessary funding has been provided by approval of Article 6 of the 2013 Warrant in the amount of \$170,000 for completion of the Goss farm barn restoration.

The main purpose of owning the property is to promote local agriculture. The programs that are in progress are to establish a Community Supported Agriculture (CSA), creating community garden plots, and providing an area for Rye schools to educate children about agricultural practices. Since the property is adjacent to wetland meadows and salt marshes, buffer areas have been established to protect runoff from the proposed farming areas.

The Goss Farm provides an opportunity to connect with and preserve farming traditions of the past.

**B. Forest Land Resources**

The Town of Rye has numerous forest areas on both private and public properties. Two large areas are the Town forest known as Parson's Woods, (accessible from Washington Road), and the Varrell Woods, (accessible from Parson's and Recreation Road). Both areas contain trails that are well used by our citizens. Every day many people use these trails for exercise and dog walking. During the winter, the trails are used for skiing and snowshoeing. Both areas are protected by a conservation area easement, managed by the Rye Conservation Commission and supervised by the Rockingham County Conservation District.

The Town forest is used by the Rye schools as part of their natural study program. The forest also offers wildlife corridors. Securing these corridors is an important goal of the Rye Conservation Commission. Other unique forest areas include the Odiorne State Park and the Atlantic White Cedar Preserve on Cedar Swamp Run that were gifted to the Nature Conservancy.

The Rye Conservation Commission has a forest management plan.

### C. Odiorne Point State Park

Rye is fortunate to have Odiorne Point State Park that helps to preserve our open space and includes 330 acres of coastal land and water along Route 1-A. The park includes walking trails, picnic areas, and the Seacoast Science Center. Wildlife habitat at the park includes salt water marshes, rocky shores, upland shrub forest, meadows, salt and fresh water ponds, and beach dunes. In addition to its natural amenities, the park also contains historical and cultural resources such as the remnants of World War II military structures, cellar holes and stone walls. The Park is operated by the Division of Parks and Recreation, with the exception of the Seacoast Science Center, which is a public/private partnership managed by the Audubon Society under contract with DRP in affiliation with the Friends of Odiorne Point State Park and the Seacoast Science Center, Inc., and the University of New Hampshire Sea Grant Program. These groups are each represented on the Seacoast Center Advisory Committee, which is responsible for overseeing the activities of the Center.

The Science Center is host to over 100,000 visitors a year as well as school groups and day campers. The Center's activities include educational programs, field and interpretive programs.

In addition to its ownership and management of the coastal areas of the Park, The Division of Parks and Recreation also owns and manages White and Seavey Islands, which are two of the islands of the Isles of Shoals. Habitat restoration projects have been sponsored on the islands by Audubon and the NH Fish and Game Department.

Both the natural and cultural history of this unique area of Rye have been well documented and can serve as useful resources for the citizens of Rye in formulating strategies to restore habitat, protect natural areas, and respond to impacts to natural resources occurring as a result of residential and commercial development. More information on the wildlife habitat, natural history, and cultural history of the Park can be obtained from the Seacoast Science Center and in The Odiorne Point State Park and White Island Master Plan (1999) and the Management Plan for the Cultural Landscape Features of Odiorne State Park (2002). Several documented habitat inventories and related studies have also been conducted in the Park by university graduate students, professional consultants, and volunteer naturalists.

The New Hampshire Islands of the Isles of Shoals are included in the Rye Historic District. The Rye Historic Commission is tasked with preserving the cultural, economic, social, political, and architectural history of the Rye Historic District. This multi-disciplinary approach to managing and protecting resources which are both natural and historic highlights the important connections between our green, built, and social infrastructure, as discussed in the introduction to this chapter.

**D. Salt Marsh Restoration Projects**

Salt marshes are the transition zone from the ocean to the land. In this zone, fresh water and salt water mix. Salt marshes are very productive ecosystems despite wide fluctuations in salinity, water flow, temperature, and oxygen levels. Plants that live in the salt marsh are salt tolerant. Salt marsh zoning results from species adapting to particular physical and chemical conditions in different areas of the marsh.

The influence of tides is crucial to the productivity of the marsh, carrying in nutrients for plant growth and carrying away some organic material. Remaining organic material accumulates and becomes peat (NES, 2004).

Assurance of uninhibited salt marsh tidal flow is critical to protecting the ecosystem. Every reasonable effort should be made to protect the tidal flow. Where tidal flow has been restricted to salt marsh areas we should promote implementing actions to reclaim the restricted area to their original state.

Due to zoning, four distinct areas of plant growth can be observed when looking out across a salt marsh: the low marsh, the high marsh, panes and pools, and the upland border.

The following salt marshes have benefited from ongoing restoration projects:

- Parson's Creek Marsh: off Wallis Road - year of project 1997-1999
- Fairhill Marsh: west of Wallis Sands State Beach - year of project Phase I 1997, Phase II 2004
- Awcomin Salt Marsh: year of project 2001-2003
- Massacre Marsh: off Brackett Road - year of project 2003 ongoing

**E. Berry's Brook – Bellyhack Ecosystem**

Berry's Brook has a total stream length of 6.2 miles, of which the easternmost 1.0 miles is tidal. It has a mean flow of 7.8 cubic feet per second. The Berry's Brook drainage basin is 5.9 square miles in area. Approximately 55 percent of the drainage basin is in the Town of Rye; 40 percent in the City of Portsmouth, and 5 percent at the headwaters at Breakfast Hill in the Town of Greenland. The following is excerpted from the Berry's Brook Water Quality Management Plan (WQMP. P 28-29)

The Berry's Brook-Bellyhack Bog ecosystem is an area of great natural beauty and has prime importance as a healthy and functional wetlands system comprising upland drainage, feeder streams, an estuary and a tidal marsh. Its biological productivity is exceptionally high in abundance and diversity of plant and animal species. A study of this ecosystem offers one an education in the dynamics of the energy-food web upon which we are all dependent in the broad sense as well as in a strict sense. The latter refers to the fish and shellfish that can be caught or gathered in modest but adequate amounts for many families to enjoy. For example, seasonal smelt and flounder fishing is often excellent in the tidal area.

Berry's Brook has the only sea run brown trout population in New Hampshire. The marsh area is a haven for shore birds and waterfowl. Kingfishers, Great Blue Herons and Snowy Egrets can be frequently observed from the Brackett Road Bridge. The waters of Berry's Brook contain an abundance of aquatic vegetation that provides food and shelter to many other species and also contributes to the estuarine detrital reservoir.... This is the first step in the food chain, which ultimately provides for the fish, shellfish, birds, and mammals indigenous to this estuary, many of which are transient or seasonal (e.g. the sea run brown trout). If the primary producers in the food chain, the green photosynthetic plants of the wetlands, are destroyed or rendered unhealthy, eventually the whole system will breakdown and become more limited in productivity. One of the most tangible results of the degradation of ecosystems such as this to the ultimate consumer—humans—is that most of the shellfish and fin fish which depend wholly or in part on the estuarine-marsh system for their life cycles become increasingly scarce and costly.

In 1990, the Rye Planning Board and the Portsmouth Planning Board began an inter-municipal effort of watershed protection planning for the Berry's Brook watershed. The Berry's Brook Watershed Protection Council was organized, and grant assistance from the State coastal program was used for the preparation of eight planning base maps of the watershed. The base maps portray, respectively, the study area, zoning, wetland soils, parcel ownership, slopes, aquifers and utilities within the watershed.

In late 1992, further coastal program grant assistance was received for the preparation of a Watershed Management Plan for Berry's Brook. The Berry's Brook Watershed Management Plan was completed in June 1993. The plan report contains a detailed inventory and analysis of the watershed, a build-out analysis and an action plan for watershed management.

In 1995, with the assistance of a NH Coastal Program Grant, water quality testing was accomplished at eight locations along Berry's Brook during April and May 1995. Level of bacteria and hazardous compounds were low and did not pose any health problem. The Public Works Director maintains further testing as part of the NH DES Storm Water Phase II annual permit process.

## F. Wetlands

Rye has approximately 7 miles of coastline with tidal and fresh water wetlands comprising approximately 38 percent of Rye's total land. Today, the coastline, estuaries, salt and fresh water marshes, and wetlands are protected by Federal, State, and local regulations. Protection is given to Rye's wetlands by state regulation of wetlands administered by the New Hampshire Wetlands Board, which requires that anyone planning to excavate, remove, fill, dredge or construct within a wetland obtain a permit from the Board. The Rye Conservation Commission reviews all applications for state wetlands permits. Environmental impacts are assessed for each requested permit affecting these protected areas and their associated buffer zones.

Much of the wetlands in the town of Rye is on town-owned land (i.e. Town Forest, Varrell Woods, Seavey Acres) and is preserved and made available for limited public use. Scenic hiking and walking trails are maintained with good forest management practices for healthy forest growth and wildlife habitat. Select parcels of land will continue to be acquired for conservation and public use through gifts of land and outright purchases. The objective is to provide additional protection for Rye's marshes, streams, ponds, and selected forested areas. It also provides for larger contiguous wildlife habitats. In 1996, Varrell Woods was acquired, a significant parcel adjoining Awcomin Marsh and the Town Forest.

There are 7 major systems of wetlands in Rye:

1. Berry's Brook – Bellyhack Bog
2. Witch Creek
3. Fairhill Swamp
4. Concord Point Drainage Basin
5. Awcomin Marsh
6. Rye Harbor Marsh
7. Cedar Swamp Run (aka Bailey Brook)

Of these, studies have found the Berry's Brook – Bellyhack Bog system to be the most pristine and the Concord Point Drainage Basin to be the most threatened. In 1993, the Berry's Brook Watershed Protection Council developed the Watershed Management Plan for Berry's Brook, prepared by Appledore Engineering, Inc. The Plan includes an extensive inventory and analysis of watershed resources, a discussion of threats to watershed resources, a build-out analysis, and an action plan of regulatory and non-regulatory strategies. The Plan rests on seven key policies to protect the watershed and its natural resources through an inter-municipal management framework.

The Conservation District of the Rye Zoning Ordinance, which was enacted in 1989, also protects wetlands. The Conservation District is a use district, which includes most of Rye's salt marshes within its boundaries. The uses permitted in the Conservation District include forestry, conservation, aquaculture, trail, nature centers, and wildlife viewing blinds. Commercial, business, industrial and residential uses are prohibited.

### **G. Wildlife Corridors**

The Town of Rye contains several wildlife corridors used by animals as routes to food, water and habitat areas. Some of these corridors are protected by easements established by the Conservation Commission. The primary corridors that should be protected include from Breakfast Hill along Berry's Brook to Sagamore Creek and the Odiorne State Park, from the Junior High School to the Massacre Marsh, from Parsons Field to Awcomin Marsh, and from West Road through Brown's Pond to Eel Pond. It is the goal of the Conservation Commission to keep these corridors protected to enhance wildlife protection.

### **H. Open Space**

The Town is fortunate to have an abundance of wildlife due to our open space. The latest success can be seen by the growth of flocks of wild turkeys. There are several areas where postings have been made to protect turkeys crossing our roadways.

### **I. Advantages for dog owners**

In addition to benefiting our wildlife, open space has made it easier to accommodate the needs of dogs. While most neighboring towns have restricted dogs from traveling off leashes, we have the advantage of walking our pets on trails in our Town Forest as long as they are under the owners' control. There has been some concern about having dogs on the beaches. Dogs are allowed on the beaches during restricted hours during the summer months as long as they are under the owners' control and the owners' commitment to picking up pet waste. The pet owners are obligated and should encourage others to abide by the local regulations in order to maintain these privileges not provided by other communities.

### **J. Inventory of Conservation Land.**

Now that we have acquired a large amount of open space and conservation land, it is time to present an inventory of these parcels and designate the proper uses, by accomplishing this we will encourage our citizens to use those areas as designated for nature walks, snow shoeing, cross country skiing, and jogging. The inventory is published each year in the Annual Town Report. The Conservation Commission is encouraged to provide guidelines and maps for usage of appropriate conservation trails.

### **K. Significant Threats to Natural Resources**

#### **Fragmentation, sprawl and threats to water quality, wildlife, wildlife habitat, fisheries and the working landscape.**

Fragmentation takes places when large, contiguous parcels of undeveloped land are broken up into smaller or non-contiguous tracts of land for residential or commercial

development. This happens hand-in-hand with a sprawling development pattern of conventional subdivisions:

“A typical subdivision in northern New England requires 1 or 2 acre lots. Twenty houses can consume 40 acres, leaving little open space. Placing the same 20 homes on ¼ acre lots and using attractive landscaping and design elements to create privacy consumes only 5 acres, leaving room for 35 acres of open space.” (Forest Service, 2005; CEP, 2003).

Fragmentation and sprawl lead to several negative impacts on natural resources, the economy, and society. Fragmentation impacts flood retention as more impervious surfaces such as pavement are added in the course of development. Pavement cannot absorb water and thus water flows in sheets more quickly to streams, rivers, and lakes than it would over forested, wetland, or grassed landscapes which slow down water flows, act as filters and serve as water recharge areas for groundwater (Forest Service, 2005; CEP, 2003; Biodiversity Project, 2005).

Fragmentation disrupts wildlife corridors used by animals as routes to food and water, and severs connections of habitat areas (Forest Service, 2005). The Society for the Protection of New Hampshire Forests observes that “the state’s predicted growth of the next twenty years will fragment the large blocks of forests and wetlands that are crucial for providing wildlife habitat and sustaining critical ecological processes (SPNHF, 1999).

Economic impacts of fragmentation and sprawl include greater municipal costs for maintenance of roads, water supply, sewers, school bus routes, and fire and safety services as the population spreads out. As the community requires more services at greater cost, property taxes also rise, forcing landowners to make difficult decisions concerning future land use on their property. (Forest Service, 2005). Automobile use increases with sprawl resulting in greater fossil fuel use, increased traffic congestion, noise, and pollution when work, residences, and goods and services are all in separate locations (Putnam, 1995).

Social impacts of fragmentation and sprawl result in changes to the community. Community culture can change, particularly in small New Hampshire towns where residents once had a close connection to the land through forestry, farming, hunting and fishing, and other recreational activities. The community may suffer as a whole through the loss of recreational activities and a shared natural heritage. Residents who are more widely dispersed often have lower levels of participation in civic affairs and community volunteerism, due to less frequent contact with neighbors and other residents, resulting in an overall loss of social capital for the town: “Each additional ten minutes in daily commuting time cuts involvement in community affairs by 10 percent” (Putnam, 1995).

Areas of Rye such as the development along Lafayette Road have fragmented habitat, reducing land area that provides food, nesting, and breeding habitat, and travel corridors for wildlife. There are still large tracts of land suitable for development in Rye. The

questions arise: How are we going to maintain the rural small town concept in the future? How are we going to preserve open space?

For many years the Rye Planning Board has discussed cluster type development. The Retirement Community Development (RCD), section 401 of the Rye Zoning Ordinance was adopted in 2006 and amended in 2008. Twenty-two units, known as White Birch, were constructed on a 10 acre parcel and were clustered in a small area so that the remaining acreage was retained as forested open space. An RCD proposal for the former Rand Lumber Company site is currently pending before the planning board.

In 2010 the town adopted provisions for workforce housing by providing for by creating a Multi-Family Dwelling Overlay District to provide for multi-family housing in appropriate locations in Rye and passed zoning ordinances Multi-Family Dwelling & Multi-Family Developments, as well as, Conservation Land Developments (CLDs) in the Single Residence and Commercial Districts as an Innovative Land Use Control, pursuant to RSA 674:21. RCDs and CLDs are good examples of how we can save open land while providing for needed retirement and workforce housing.

**Figure 6-2**

<b>Impacts/Solutions</b>	
<b>Fragmentation and Sprawl: Impacts</b>	<b>Proposed Solutions for Rye</b>
Need for Cluster and/or Pocket neighborhood type zoning in order to protect our Open Space.	Changes in the zoning and land development Regulations.
Increases in impervious surface/ decreased flood retention/ faster delivery of pollutants to streams and wetlands	Allow narrower streets in subdivisions to reduce impervious surface. Require on-site infiltration and vegetated buffers for streams and wetlands. Require low impact development strategies for drainage plans.
Greater automobile emissions, congestion, greater infrastructure costs for isolated subdivisions at the end of long cul-de-sacs	Provide for walkable or bikeable subdivisions. Require two points of connectivity in new subdivisions to existing street networks.
Fragmentation of forests restrictive to species range requirements	Require contiguous areas of wetland/other habitat be designated at beginning of design phase for conservation subdivision. Require developers to protect trees from impacts of construction activities.
Roads, etc disrupt wildlife corridors	Provide tunnels, wider culverts, or other safe crossings for wildlife where roads fragment habitat

## **6.6 IMPORTANCE OF RYE’S WATER SUPPLY**

Since Rye is located in Rockingham County, one of the fastest growing population areas in New Hampshire, our third most important natural resource is our water supply. Approximately 75% of the town is supplied by Rye Water District by a system of wells located near Garland Road.

### **A. Ground Water Resources in Rye**

1. Groundwater is present in both bedrock and in the unconsolidated materials that overlie bedrock (overburden). Rye is fortunate to have valuable groundwater deposits in both the overburden and bedrock. Glacially derived stratified drift deposits, primarily made up of sand and gravel make up the valuable overburden deposits. The Stratified Drift Aquifers Map included in the Master Plan shows the extent of these aquifers. The dark blue indicates areas where saturated sand and gravel has the highest transmissions or the greatest ability to transmit groundwater to wells.

The Rye Formation, which underlies much of Rye, contains fractures, which transmit water to wells. This formation has zones of fracturing that make it transmissible and valuable as a water supply source.

The Rye Water District has sited wells in the most transmissible zone of stratified drift deposits and within the fractured Rye Formation bedrock. Both of these water systems are located on Garland Road.

2. **Groundwater and Surface Water – A Single Resource**

Although often thought of as distinct systems, groundwater and surface water, especially in coastal New Hampshire are closely linked. A lead in to a recent US Geological Society report states “ As the Nation’s concerns over water resources and the environment increase, the importance of considering ground water and surface water as a single resource has become increasingly evident”. (Winter, et al., 1998). Groundwater will discharge to surface streams, wetlands and ponds and surface water often provides recharge to underlying groundwater. Therefore human activity can inadvertently affect both the quality and the quantity of both resources.

3. **Ground Water Quality**

Contaminants in groundwater pose a number of human health concerns. Chronic bioaccumulation of toxins impairs drinking water and affects wildlife species by degrading the overall water quality required for ecosystem function. Increased turbidity in freshwater streams for example results from erosion and has a negative impact on aquatic life. Fish and shellfish contamination not only affects human health, but also has an economic impact on the fisheries economy and travel/tourism industry.

New Hampshire groundwater quality is threatened by naturally occurring contaminants such as fluoride, arsenic, mineral radioactivity and radon gas, and contamination from releases of petroleum and volatile organic compounds (VOCs) from commercial and industrial activities. VOCs and other petroleum related substances are the most frequently detected substances. The sources of these petroleum related contaminants are petroleum storage tanks, accidental spills of petroleum, and the land disposal of wastes (NHDES 1996).

(MTBE has been eliminated from gasoline, some still remains but it is not as serious a problem as in years past).

Radon in groundwater is prevalent in the Northeastern United States and New England to a greater extent than is found in other parts of the country (Zapecza and Szabo, 1988). This is largely due to the type of bedrock in the region. NHDES estimates that up to 5 percent of the bedrock wells in New Hampshire have significant concentrations of radionuclides such as uranium, radium-222, and radium-228. Sodium and chloride due to road salt usage is also a contaminant of concern. According to one study, “contamination from road-salt storage piles and facilities and spreading of salts on roadways was the cause of 79 percent of the contaminated wells in New Hampshire” (Morrissey, 1998).

Septic systems that have failed or are not working properly can introduce excess nitrogen and bacteria into groundwater. Other constituents in septic effluent are not treated by infiltration and assimilation in the subsurface as well. New threats to groundwater and surface water include pharmaceuticals and personal care products that pass to groundwater from human waste through septic systems and from wastewater discharge. Household and landscape chemicals if not properly used or applied can also become incorporated into runoff and groundwater.

**Figure 6-3**

<b>Groundwater Threats and Solutions</b>	
<b>Threats to Groundwater Resources</b>	<b>Proposed Solutions for Rye</b>
Petroleum related contaminants, snow removal chemicals such as road salt, accidental spills of chemicals related to industrial uses.	An Aquifer Protection Ordinance has been developed and adopted by the Planning Board which limits land use and requires protective measures and design review. Regular updates to the Ordinance should be incorporated to keep it current with new understanding of impacts to groundwater.
Pharmaceuticals and personal care products and excess nitrogen can also be introduced through waste discharge.	Promote landscape and field management practices that optimize and reduce landscaping chemicals. Promote on-site management of stormwater. Promote the use of slow release nitrogen fertilizer. Promote these changes through outreach to landscape professionals. Residents and commercial property owners and ordinances if necessary.

<p>Lawn irrigation and landscape water use places demands on water resources during the time of year when water levels are typically lowest.</p>	<p>Provide outreach and education to landscape professionals, residents and commercial property owners on optimizing water use, using low impact irrigation techniques, and using water based on soil moisture and plant needs.</p> <p>Follow recommendations of Berry’s Brook Watershed Management Plan and other watershed plans developed for Rye watersheds. Review and update these plans as needed.</p> <p>Restricting certain uses in the Aquifer Protection Zone and requiring appropriate practices for handling and storing waste and snow removal chemicals. Follow recommendations of Berry’s Brook Watershed Management Plan.</p> <p>Additional promotion for the annual Hazard Waste Collection Drive.</p>
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**B. Surface Water**

Water resources are plentiful and diverse in Rye, but are nevertheless prone to threats from a variety of sources. Water quality is threatened by pollution from point sources (pollution from an identifiable point of discharge) such as septic systems, or run-off from parking lots and from non-point sources (pollution from an unidentifiable point of discharge) such as atmospheric deposition of acid rain and mercury. Waters are classified as “impaired” if they are of unsuitable quality for swimming, maintaining healthy aquatic biota, and (or) have a fish consumption advisory posted (Flanagan et al., 1998).

Threats to water quality include a number of contaminants, such as metals (including mercury), PCBs, dioxin, phosphates and nitrates from agricultural, commercial and residential use of fertilizers and pesticides and industrial waste, as well as physical and biological processes including siltation and erosion, organic enrichment resulting in low dissolved oxygen, flow alterations, and habitat alterations. According to The Department of Environmental Services (DES), metals, PCBs (polychlorinated biphenyls), and bacteria are the leading threats to water quality in freshwater rivers and streams.

**6.7 Other Threats to Surface Water**

In freshwater lakes and ponds, major threats include low pH values due to acid rain as well as the state’s natural low alkalinity levels caused by granite bedrock. Excessive algal growth, noxious aquatic plants, and bacteria also present threats to surface water. The New England Coastal basins are underlain by large amounts of bedrock, which has little to no buffering capacity. The result is that surface waters are susceptible to acidification from atmospheric deposition, introduction of exotic species, municipal and industrial point and non-point pollution sources.

**A. Tidal, Coastal, and Open Waters**

Tidal waters, coastal shoreline waters, and open ocean waters have yet another set of contaminants which pose significant threats to water quality. PCBs, bacteria, and metals are the primary threats to estuaries; PCBs are the primary threats to coastal waters and open ocean waters. Known sources include sewer cross connections, and combined sewer overflows.

**B. Salt Marshes**

Historically, salt marshes were harvested for salt marsh hay. A healthy salt marsh appears as a flat, low meadow of dense salt tolerant grasses. Tidal flooding distributes water through a system of creeks in healthy marshes. In the state of New Hampshire, there are about 6,200 acres of salt marsh. Due to its coastal location, salt marshes are an important and prominent ecosystem in the Town of Rye. Salt marshes are highly productive ecosystems that rely on a delicate balance between marine and terrestrial environments. Marshes provide scenic views, open space and habitats for many types of wildlife including fish and birds such as snowy egrets and great blue herons. Marshes also provide water filtration and areas for flood retention and flood control (NRCS, 2005).

Threats to salt marshes include changes to natural hydrology, pollution, coastal development, fill/marsh elevations, and invasive plant species. During the early 1900s roads and railroads were constructed and severed the connection between salt marshes and the ocean, these areas were highly productive ecosystems. Parts of the marsh were no longer connected to the ocean. This division reduced or eliminated tidal flooding, which disrupted natural flooding regimes and altered soil and water chemistry, resulting in changes to natural plant and animal communities, including the introduction of invasive species such as phragmites and purple loosestrife (DES, 2004). Other threats to salt marshes include failed attempts to provide flow such as the installation of culverts, which were too small (NRCS, 2005). Mosquito control efforts have also sometimes resulted in negative impacts to salt marshes through poorly designed ditches or other attempts to drain marshes (NRCS, 2005).

Many communities now recognize these negative effects and are now working actively to restore their salt marshes. Restoration efforts are discussed at length in sections to follow and the appendix to this chapter includes a list of current salt marsh restoration projects in the region.

**Figure 6.4**

<b>Threats to Water Quality: Impacts</b>	<b>Proposed Solutions for Rye</b>
Nonpoint pollution adds nitrates, contaminants to surface water and wetlands	Buffer rivers, lakes, and wetlands with vegetated buffers.
Mercury contamination may have human health impacts, negative impacts to wildlife	Educate residents about fish consumption advisories and impacts of acid rain deposition, support recycling of mercury wastes, follow state plan for mercury reduction, Berry's Brook Watershed Management Plan
Lead contamination	Educate anglers about New Hampshire's prohibition lead sinkers and jigs, and safely dispose of certain lead sinkers and jigs at NH Fish and Game offices
Lawn chemicals add contaminants and nitrates to wetlands through runoff	Consider restrictions on pesticide/fertilizer use in new subdivisions that abut wetlands

**C. Increases in Impervious surface and Water Quality**

Impervious surfaces impede the infiltration of water into the soil. Examples of impervious surfaces include roads, parking lots, buildings, concrete and severely compacted soils. Such surfaces are also sometimes referred to as impermeable (New Hampshire Estuaries Project, 2004).

The increase of impervious surfaces through development affects water resources in several ways. Impervious surfaces combined with urban drainage systems such as curbs and gutters and storm drain pipes can alter the natural hydrology in a watershed by increasing the volume of stormwater and reducing groundwater recharge. Impervious surfaces can also result in loss of aquatic habitat, loss of biological diversity, and an overall decrease in water quality due to the accelerated delivery of pollutants into rivers, lakes, and estuaries (NHEP, 2004).

Recently, scientists have reported that levels of impervious surface in excess of ten percent in a watershed can affect water quality. "When the percentage of impermeable surfaces in a watershed is ten percent or less, streams typically retain good water quality and stable channels. When the proportion is between ten to twenty-five percent, stream fed flows cause noticeable erosion" (Perkins, 2004). More than twenty-five percent impermeable surface can lead to severe physical and ecological damage to streams in a watershed (Perkins, 2004).

Pollutants in runoff include suspended carcinogens known as polycyclic aromatic hydrocarbons, which can leach from asphalt-based and coal tar-based sealants. Other pollutants often found in runoff include pesticides, nitrates, phosphates, and salt for de-icing roads (Perkins, 2004).

Increases in impervious surface may result in less infiltration of rainwater into the soil, increasing flooding, streambed erosion, and sedimentation (DESFS, 2004). Runoff may also change the temperature of bodies of water as it may be warmer, and may contain

pollutants including household chemicals, metals, fertilizers, pesticides, oil and grease, and pathogens. Loss of vegetation buffers due to development or erosion can also alter the temperature of water bodies to a level at which species cannot persist (DEFS, 2004), (\*DES fast sheet)

Impervious surfaces represent a threat not only to the green infrastructure of streams and water recharge areas, but also to the social and built infrastructure components of municipal services. In other words, reducing impervious surface not only helps to improve water quality, it may also result in lower municipal costs for road maintenance and clearing and lower development costs. A 100-foot reduction in road length will result in a savings of about \$15,000. This figure includes savings from reduced pavement, curb and gutter, and stormwater management structures (Center for Watershed Protection, 1998). Well-planned street layouts will reduce impervious surface and help alleviate traffic congestion. The goal is to protect conservation areas, and create a street system that optimizes the ability of town fire and rescue officials to respond to emergencies in a timely and efficient fashion.

**Figure 6-5**

<b>Threats from Impervious Surfaces</b>	<b>Proposed Solutions for Rye</b>
Flooding, reduced suitability of land for water recharge	Conduct a review of Rye’s ordinances and regulations based on Better Site Design checklist. Require on-site infiltration. Amend building codes to require drip beds, rain barrels and other infiltration devices for structures.
Delivery of pollutants to water bodies, wetlands, traveling across paved areas	Buffer waterbodies, reduce amounts of impervious surface through use of narrower roads in subdivisions.
Increased municipal costs, poorly designed road networks that result in congestion and higher municipal costs	Limit lengths of cul-de sacs, roads in new subdivisions. Restrict development to areas adjacent to existing development.
Pavement	Allow narrower street widths.

Rye is a town with a large deer population. Collision between deer and motor vehicles seems to be an increasing event, resulting in injury or death to the deer, damage to vehicles and possible injury to the motorists. To decrease this occurrence we should recommend increased signage in known deer crossing areas.

**D. Human Activity**

Everyday activities associated with development can have negative effects on wildlife. Lighting can affect the behavior and biological rhythms of species that are guided by cycles of light and dark. Domestic pets such as cats may become predators to ground-nesting birds. Household trash may attract certain species and allow them to thrive (DEFS, 2004) and may create nuisance conditions or human/wildlife conflicts.

**Figure 6-6**

Threats to Wildlife	Proposed Solutions for Rye
Fragmentation of habitat	Protect green corridors through purchase of fee title or easements, follow State Wildlife Conservation Plan and mapping to designate protected areas
Lighting	Require dark-sky standards for new developments or site plans, fully shield or full cutoff fixtures.
Private landowner education	Educate landowners about pet predation, disposal of household trash, and household lighting. Educate landowners about voluntary federal incentive programs to protect habitat on private land
Invasive species	Monitor invasive species in new development and near critical areas such as wetlands, salt marshes, remove invaders such as Phragmites to slow proliferation. Educate boaters on removing aquatic species from boat hulls.
Nuisance wild animals: geese, coyotes, deer	Educate landowners about nuisance animals through Fish and Game resources. Consider possible options for control of animals. Learn seasonal hunting options and restrictions. Coyotes have no closed season and can be hunted at night during certain times of the year.

**E. Biodiversity**

Wildlife losses can be measured not only in terms of individual species, but also in terms of an overall loss in biodiversity. Biodiversity is critical to ecosystem function, or green infrastructure, due to the interdependent relationships between animal and plant species. Biodiversity is also important to sustaining the built and social infrastructures, due to the importance of ecosystem function to science, economics, energy, and health.

With increased development pressures, the environmental, economic, and social utility provided by New Hampshire’s water resources, wetlands, forests, fields, and wildlife is severely compromised. Although ecosystems are made up of dynamic, adaptive processes that can respond to many stressors, the recent impacts of growth and the loss of important resources has resulted in the loss of species and the degradation and loss of water resources, forests, wetlands, salt marshland, and farmlands.

The Town may wish to utilize new information available from the state Fish and Game Department concerning the state wildlife habitat protection plan. This plan will contain individual information for each town in the state on wildlife habitat as well as mapping of wildlife habitat areas. The Town could use this mapping to develop plans for management of town owned lands and to identify areas in the town worthy of protection. The maps included in the state plan will be helpful in this regard. The Wildlife Habitat Map, included as part of the map set with this chapter, shows 10 different types of areas of habitat types important for a particular species. The list of species for each type is included in the appendix with this map.

If the Town decides to utilize these maps, several useful resources are available to help identify areas of wildlife habitat as well as to document the occurrence of species. One particularly helpful resource is the guide “Identifying and Protecting New Hampshire’s Significant Wildlife Habitat,” (2001) which is available online but also is included with the initial data and maps distributed to every town from the state Fish and Game Department.

**6.8 THREATS TO THE WORKING LANDSCAPE**

Many important environmental services are provided by the working landscape, including water filtration by wetlands and marshlands, flood control, water recharge areas, wildlife habitat, improved air quality, erosion and sediment loss control, and moderation of climate change, as large fields and forests serve as carbon sinks, where carbon is sequestered. Rye has a long history and cultural tradition of stewardship of the working landscape. In order to sustain the many economic, cultural, and environmental benefits of the working landscape, citizens, planners, and developers must work together to ensure that growth is planned so as to minimize the detrimental effects of development on the working landscape, to protect the many economic, environmental, and social benefits the working landscape provides.

**Figure 6-7**

Threats to the Working Landscape	Proposed Solutions for Rye
Loss of farming, fishing and hunting as part of regional character and traditional ways of life. Loss of important environmental services such as water filtration, erosion control, and moderation of climate change.	Protect areas used as hunting grounds, scenic viewsheds, and farms from development through restrictive zoning, cooperative farms, or outright purchase. Encourage outdoor recreation on Rye public lands and on privately owned parcels with legal access. Educate private landowners on practices to protect waterways and provide wildlife habitat.

**Climate Change**

Climate Change impacts could affect quality of life in New Hampshire. Alterations to our climate will result in adaptive changes or decline in certain sectors of the regional economy, including winter tourism, agriculture, maple syrup production, coastal real estate values due to sea level rise and increase in storm intensity, and health costs associated with respiratory health and heat related illnesses. With respect to local hazard mitigation planning, it is important to consider the potential future impacts of climate change including sea level rise, flooding, coastal erosion, increased intensity and frequency of storms, and the effects of changes in temperature and precipitation.

Our state’s economy is linked to both summer and winter recreational activities based on its natural resources. If these suffer, the economy will also suffer. Increased frequency and severity of damaging storm events and droughts could cause financial and personal hardships. Decreased quality and production of forestry and agriculture products could also have a significant impact on the economy and quality of life.

Recognizes future potential challenges. Rye has representation on the NH Senate Commission for Coastal Hazard and Risk, whose charter is to investigate threats due to possible Sea Level Rise and possible future storm threat.

## **6.9 NATURAL CONDITIONS AFFECTING DEVELOPMENT**

### **A. Topography**

Rye's land is gently sloping and ranges in elevation from sea level to approximately 150 feet in elevation at Breakfast Hill in the southwest corner of the town. The town is traversed from northeast to southwest by a low ridge, and five smaller ridges run from the diagonal ridge eastward to the ocean. In between the ridges are tidal and freshwater marshes, thus the roadway development in the town have followed the ridge lines. The predominant slope category in Rye is 3 to 8 percent, and in general, topography per se, does not constrain the overall development of the town.

### **B. Geology and Soils**

The major conditions which limit development are:

1. Tidal marshes.
2. Freshwater wetlands.

The soils suitable for development exist in relatively narrow bands along the ridges occupied by Washington Road, Wallis Road, Central Road, Locke Road, Grove Road, Cable Road and South Road.

The Rye Zoning Ordinance establishes a Wetlands Conservation District, in cooperation with NH DES, which essentially prohibits building construction in the tidal marshes, freshwater marshes, streams and ponds. The zoning ordinance also includes a Wetlands Buffer regulation, which provides further protection of wetlands by prohibiting most uses of land within 100 feet of tidal marshes, freshwater marshes, ponds, and perennial streams.

Rye's Land Development Regulations and the Building Code require that all septic systems receive the approval of the New Hampshire Water Supply and Pollution Control Division. Special criteria related to the depth to bedrock, seasonal high water table, land slope and soil percolation rate are also incorporated into the land development and building regulations. Additionally, The Land Development Regulations include provisions for high intensity soils mapping standards.

### **Impact of Septic System Expansion on Natural Drainage**

The negative environmental impact on natural drainage caused by septic system expansion/replacement in areas of shallow to bedrock soil is an increasing problem in the town. The mounding of the soil over the septic designs causes excessive runoff to the adjacent roads, wetlands, and properties. Often, these septic systems are surrounded by lawn irrigation systems adding chemical deposits to the runoff. The lawn chemical runoff poses a threat to natural habitats and wildlife. There are several examples of this problem in the Fairhill Estate section of Rye. In fact, this has caused drainage problems adjacent to these "mounded" septic systems during particularly wet periods.

Potential solutions to this situation have prompted the town to design complex drainage systems including catch basins. The cleaning of the catch basins has become a time consuming and costly burden to the town.

A better approach might be to include site-specific natural drainage planning when septic approvals are considered. This proactive approach could consider landscaping requirements using swales, rocks, shrubs, to allow lot specific drainage, and, therefore avoiding interrupting old natural drainage patterns. This approach would proactively prevent standing water on the roads, which leads to pavement deterioration.

It should also be noted that in the fragile ecological environment of highly developed areas in Rye, blasting for further development should be carefully reviewed and quite possibly prohibited; such blasting interrupts the water table creating even more complicated drainage issues.

#### **C. Hydrology**

Rye is part of two major drainage watersheds, the Piscataqua River Watersheds and the Coastal Watershed. The ridge which traverses Rye diagonally from Little Harbor to Breakfast Hill forms the divide between the two watersheds. Within these two watersheds are six smaller drainage watersheds. Water from the land surface flows towards the streams, wetlands and rivers located in the lowest areas in each watershed area.

There is a large area of stratified drift aquifer in Rye, which contains several smaller areas of high transmission, as shown on the Stratified Drift Aquifers Map. Transmission is a measure that quantifies the ability of an aquifer to transmit water, measured in feet squared per day. The greatest transmission of this aquifer area is found in two areas, one of which generally is found beneath the area along Washington Road to the intersection of West Road. The other area is near the intersection of Washington Road and Grove Road.

The information about the groundwater resources in Rye has been enhanced by the Fracture Trace Analysis done by the Rye Water District. Groundwater within the two major watersheds is interconnected by bedrock fractures so that water is exchanged

between the two areas. Groundwater from wells completed in the stratified drift and fractured bedrock provides much of the town's drinking water supply which is located in west Rye off Garland Road.

The primary relationship between hydrology and development concerns water quality. Recent water quality evaluations have revealed bacterial contamination in the Parson's Creek watershed. Restoration of water quality in this area is under investigation and should be continued to identify and clean up these bacteria source areas. Additional testing and evaluation should be conducted in Rye's remaining watershed areas as much development and change has occurred since previous testing in the 1978 to 1990 time frame.

In 2008, the town of Rye adopted an Aquifer Protection Overlay district within the boundaries of the Stratified Drift Aquifer. This limits land use and prevents development and land use practices that would contaminate or reduce the recharge to the identified aquifers and required a hydrologic study for developments meeting a certain size criteria. This ordinance should be periodically reviewed and updated to assure that it is current with respect to town needs and hydrologic understanding.

#### **IN ADDITION TO THIS ORDINANCE, THE TOWN SHOULD**

- Promote low impact development to protect all water resources in the town.
- Continue to promote best management practices for municipal, commercial and residential land use and provide outreach and education to constituents on threats to surface water and groundwater quality and resources.
- Continue to work closely with the Rye Water District on their groundwater management activities.
- Seek to permanently protect land through land purchase or conservation easement to protect the groundwater resource especially in the vicinity of water supply wells.

#### **D. Floodplains**

The floodplains of Rye have been mapped by the National Flood Insurance Program on Flood Insurance Rate Maps (FIRM). The FIRMs were updated and approved in spring of 2005. New FEMA maps are anticipated for adoption in 2015. All towns participating in the flood insurance program must reference the updated maps in their zoning ordinance. Based on the new maps, the Town is expected to strengthen its Floodplain Ordinance.

Zone A2: Areas of 100-year flood.

Zone AO: Areas of 100 year shallow flooding.

Zone V: Areas of 100-year coastal flood with velocity (wave action).

With the exception of Locke’s Neck, the area protected by the Wallis Sands seawall, Fairhill Manor and parts of Odiorne Point, most of Rye’s developed coastline (including approximately half of the densely developed Jenness Beach area) is located in Flood Hazard Zones V, A2, or AO. Inland, Flood Hazard Zone A2 extends to the borders of all of Rye’s salt marshes, Witch Creek, most of Berry’s Brook and all three of the major ponds.

Inland, the undeveloped land in Rye that is in the 100-year flood zones depicted by the FIRM is land that is also classified as wetlands and thereby precluded from development by the Wetlands Conservation District. However, along the coast, sizable portions of the flood hazard zones are developed. The requirements of the Flood Insurance Program, which are effected through the Town of Rye’s Floodplain Development and Building Ordinance, require that new or substantially improved residential construction have the first floor located above the base flood elevation and that new or substantially improved nonresidential structures located below the base flood elevation be flood proofed. Further flood plain regulation is imposed by the New Hampshire Water Pollution Supply and Pollution Control Division of the Department of Environmental Services further regulates the flood plain: NHDES will not approve a new on-site septic system located in a 50-year floodplain.

Figure 6-8

<b>Freshwater Wetland Mitigation Inventory for Nineteen Coastal Communities,                      by West Environmental and Carex Ecosystem Services, in cooperation                      w/ Doucet Survey, Inc. 2003.</b>				
Site ID	Name	Location	Mitigation Proposed (Size in acres)	Site Summary <i>(note: NHNHI-New Hampshire Natural Heritage Inventory)</i>
RE2	Berry’s Brook	Area west of US 1	Restoration: .5 acres / Preservation: 150 acres	Large wetland with a degraded Atlantic white cedar community. Site provides linkages to other conservation lands.
RE3	Forested Swamp	East of Brackett Rd. between Washington Rd and Wallis Rd.	Restoration: .5 acres Preservation: 14 acres	This wetland links the adjacent estuary with upland habitat. Much of the proposed upland buffer has been developed. An area of old cottages has been developed. An area of old cottages could be restored either as wetland or as an upland “island” habitat for wildlife value. Includes NHNHI element(s).
RE4	Unnamed brook	West of Brackett Rd between Washington Rd. and Wallis Rd.	Preservation: 30 acres	Southern side fragmented by a long driveway crossing. Tidal marsh appears more extensive than shown on NWI map. Much of the upland buffer is already developed/fragmented. Important wetland buffer, the estuary, and NHNHI element(s). Connects to conservation lands on eastern side of Brackett Rd.
RE5	Berry’s Brook	East of Sagamore Rd., north of Clark Rd.	Restoration: .2 acres Preservation: 40 acres	Most of potential upland buffer along Sagamore Rd. is already developed. Highly valuable wetland includes a large area of floodplain associated with Berry’s Brook and reported NHNHI element. Significant buffer area remains in eastern portion. Culvert replacement recommended to facilitate wildlife movement under Sagamore Rd.

RE6	Witch Creek	Inside New Castle Rd, Sagamore Rd., and Pioneer Rd.	Restoration: .5 acres Preservation: 15 acres	Wetlands with reported NHHI element(s). Site is adjacent to golf course, If NHHI elements are confirmed, there could be restoration of wetlands impacted by golf course runoff. Preservation or restoration would be difficult as the golf course would be affected.
RE8	Partially filled quarry and pond	New Castle Rd.	Restoration: 10 acres	This is a partially filled rock quarry. This potentially high value wetland links adjacent conservation lands and Sagamore Creek. Site is in an area of high development pressure adjacent to golf course and views of the estuary. Fill is old and includes some trash that may involve contamination issues. Appropriate measures may be needed to prevent Phragmites invasion.

The Town may wish to utilize this information to supplement its current work in protecting Rye’s wetlands.

**6.10 COASTAL WILDLIFE HABITAT AND SPECIES**

Coastal species play an important role in the coastal ecosystem, provide recreational harvesting activities, and serve as an important food sources to many residents.

**A. Shellfish**

The New Hampshire Department of Environmental Services (DES) Watershed Management Bureau is responsible for monitoring coastal shellfish growing waters. The shellfish program evaluates the sanitary quality of all coastal shellfish growing waters in the state and ensures that these evaluations are kept current through periodic re-evaluations. The program identifies pollution sources and other factors that may render shellfish resources unfit for human consumption. Agents in the program work with local officials, state agencies, environmental organizations, and members of the public to eliminate pollution sources and inform and educate the public about the quality of the state’s shellfish resources and potential health risks associated with shellfish. The ambient monitoring program collects water samples from over 75 locations in the tidal waters of the state. The Red Tide monitoring program collects weekly samples of blue mussels from two sites during April through October to check the levels of Paralytic Shellfish Poison toxin in shellfish.

Three state agencies are responsible for the overall management of shellfish sanitation, harvesting, and resource health. DES is responsible for monitoring. Fish and Game is responsible for issuing harvesting licenses, managing resources, and enforcing the decisions of the DES to open or close a shellfish harvesting area. The Department of Health and Human Services regulates aspects of the commercial shellfish industry.

Rye Harbor is one of the locations where DES collects water quality samples for analysis. This information is used to make decisions concerning open/closed areas and to track changes in water quality over time.

### 6.11 Next Steps

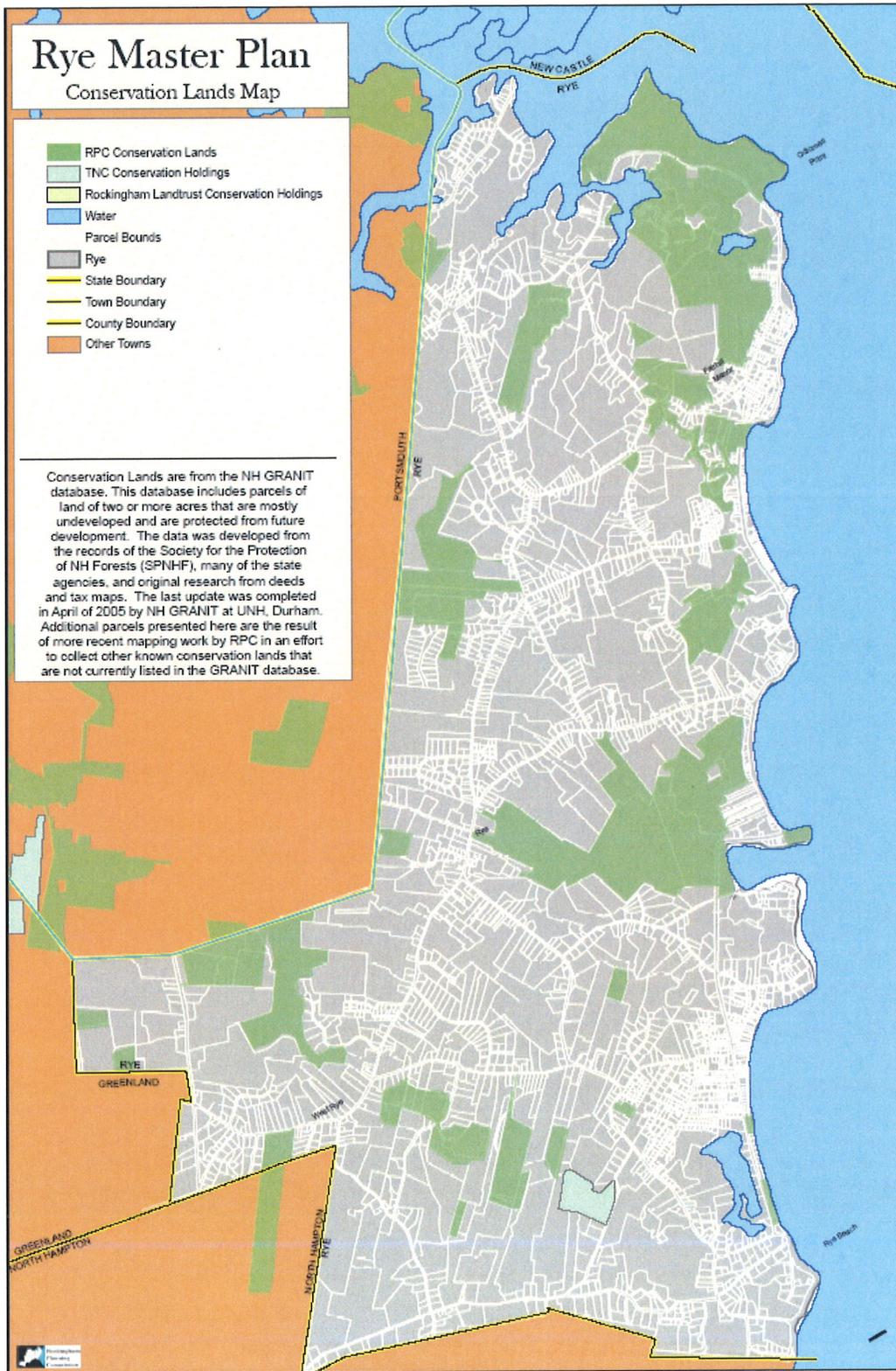
Based on the above analysis and the visioning session, the following matrix was developed. Town boards and citizens can use this matrix to develop a set of goals, strategies, and actions, which can be associated with a projected timeline for action and a core group of responsible parties: those who will lead efforts to implement specific action items.

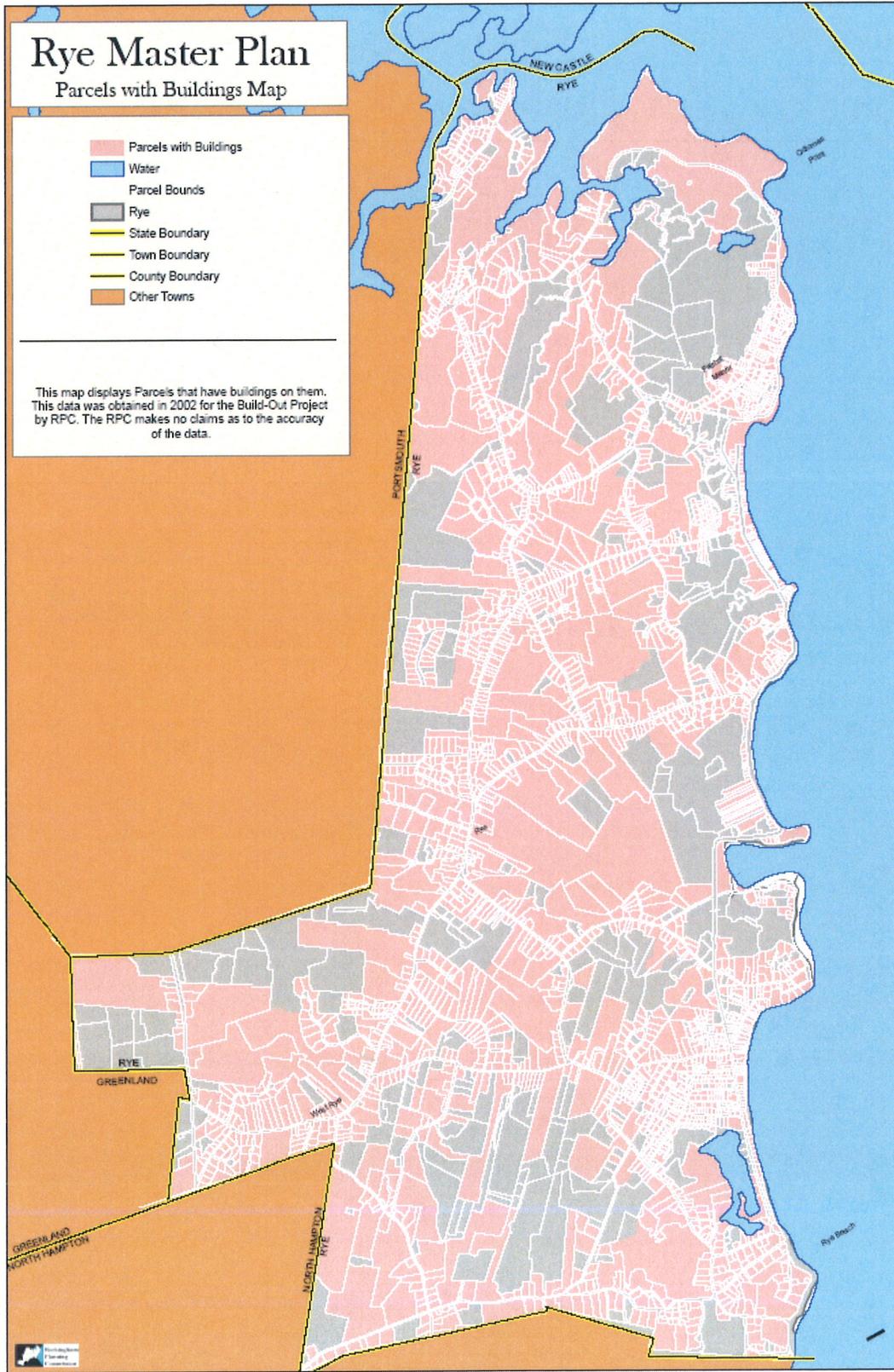
A matrix worksheet based on the comments from the visioning session and the major sections of this chapter with suggested categories is included on the following page. This matrix can serve as a guide for the town’s own matrix. A number of resources are available to assist the Town in developing strategies and specific actions to achieve their chosen goals, including the Rockingham Planning Commission, UNH Cooperative Extension, and the Handbook for New Hampshire’s Municipal Conservation Commissions (Swope, 2004).

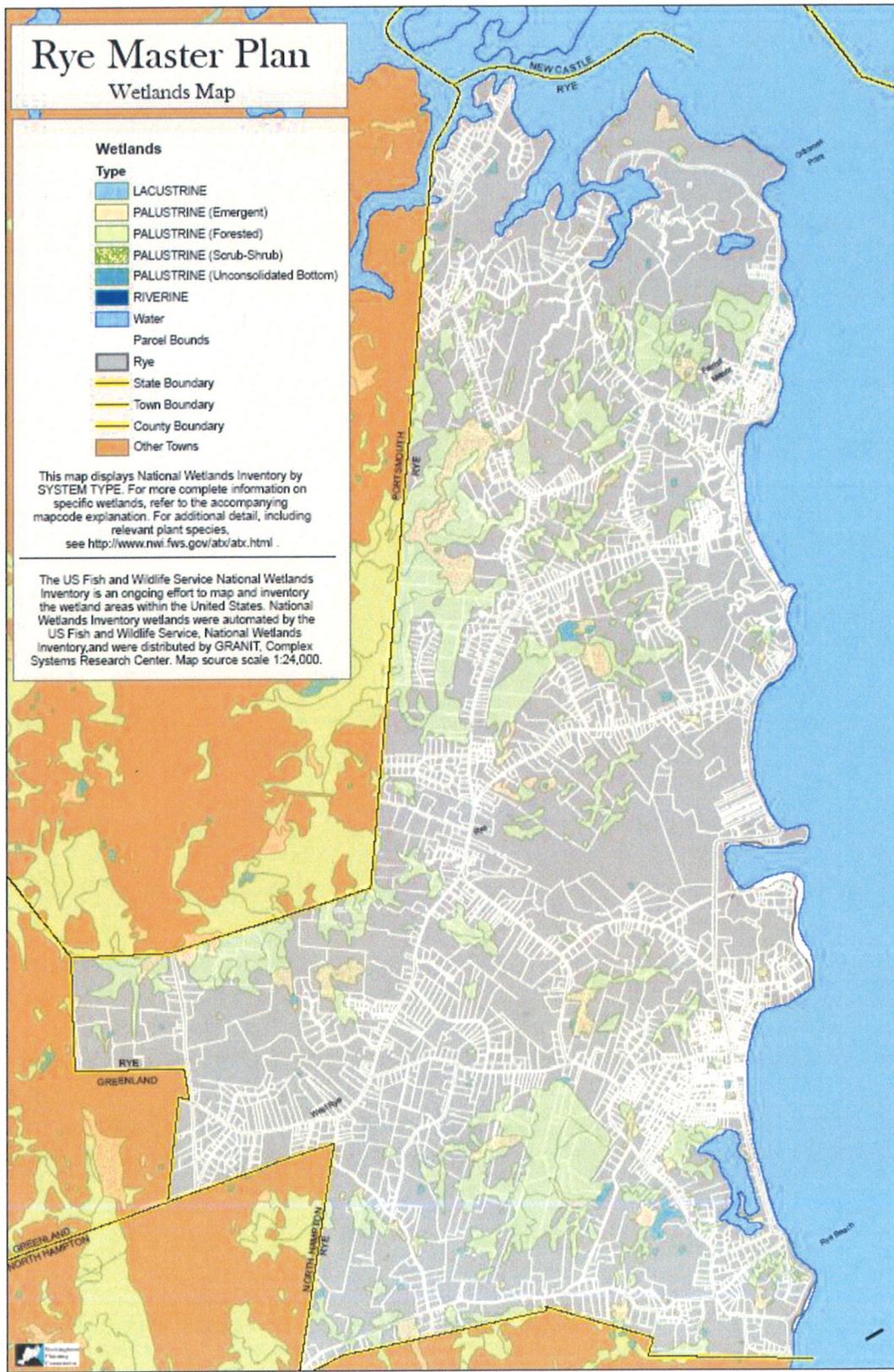
**Figure 6-9**

<b>Goals, Strategies and Actions</b>				
	<b>Strategy</b>	<b>Action Item</b>	<b>Timeline</b>	<b>Responsible Party</b>
<b>COMMUNITY VISIONING MEETING:</b> To hold a meeting where citizens and Board members can voice concerns about natural resources.	To identify problem areas with our Natural Resources	To formulate solutions	One year	Town Citizens and Planning Board
<b>FORESTS:</b> Manage forests for conservation and commercial use based on scientific data. Avoid fragmentation.	Use resource inventories and forest mapping and studies	Identify green corridors for protection through purchase or zoning. Protect trees from impacts of development.	Ongoing	Conservation Commission, Planning Board
<b>WETLANDS:</b> Protect wetlands from non-point pollution.	Utilize wetland mapping and required vegetated buffers	In 2012 the Zoning Ordinance was changed to better protect the wetlands and the wetland buffer.	Ongoing	Planning Board, Conservation Commission
<b>OPEN SPACE/CONSERVATION LANDS:</b> Acquire and manage lands for conservation	Encourage landowners to donate or sell easements, encourage conservation subdivisions.	Outreach to landowners by Land Trust and Conservation Commission. Warrant Articles for more funds.	Ongoing	Conservation Commission
<b>WILDLIFE CORRIDORS:</b> Acquire contiguous parcels to build wildlife corridors.	Utilize fish and game mapping and data and town local knowledge	Purchase of fee title or easements, natural resources inventory	Ongoing	Conservation Commission
<b>PATHS/SIDEWALKS:</b> Connect areas of town for access, recreation.	Seek transportation enhancement funding for small projects where appropriate	Identify appropriate areas for connections and recreation consider funding mechanisms	Ongoing	Selectmen. Planning Board

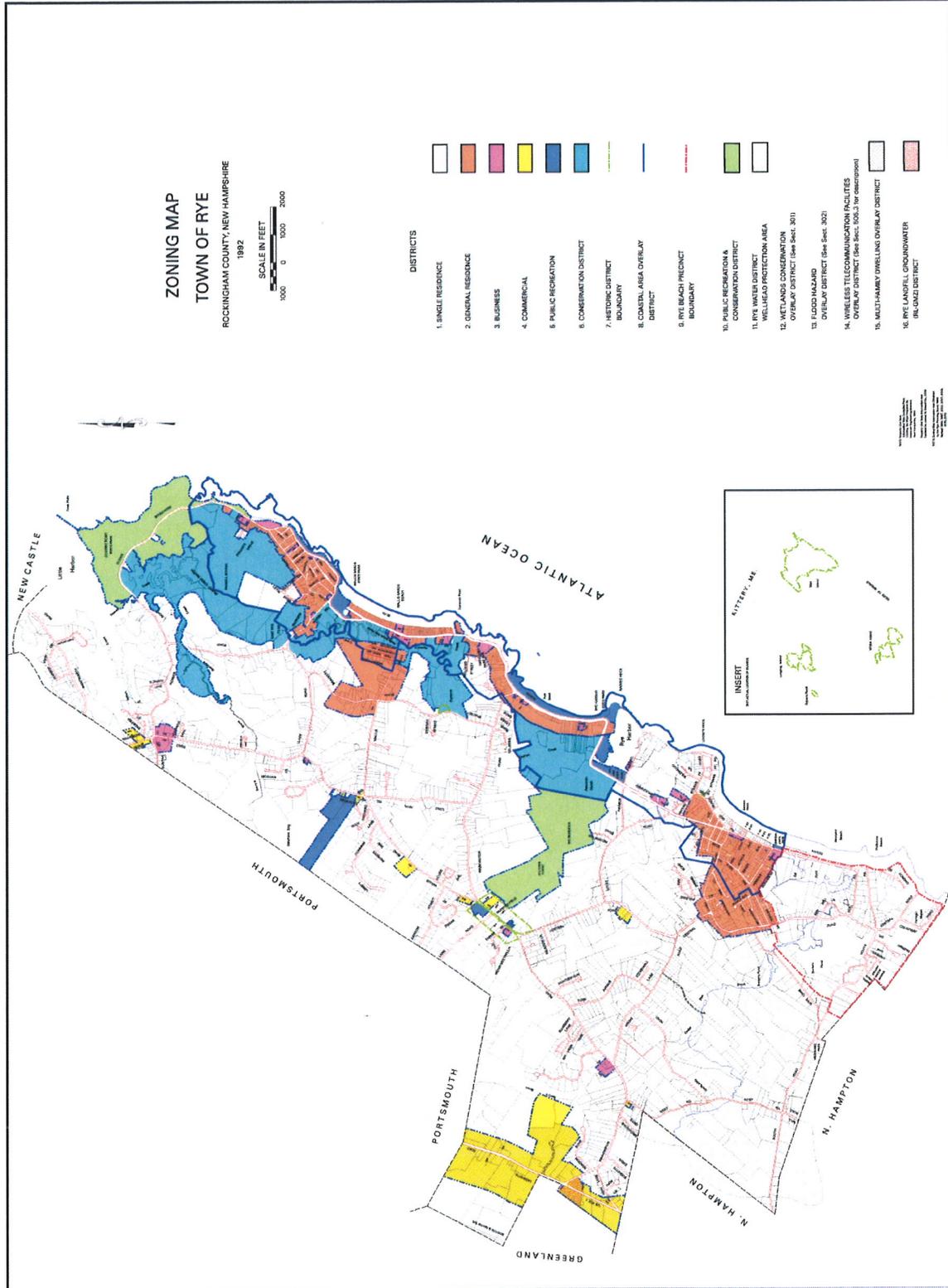
<p><b>WATER QUALITY:</b> Utilize new and existing information on aquifers, water supply, waste discharge and water usage <b>to</b> plan for the future land use.</p>	<p>Review Aquifer protection ordinance. Educate landowners about proper chemical disposal.</p>	<p>Follow current studies on aquifers, water demand and water flow models from USGS NH and DES</p>	<p>Ongoing</p>	<p>Rye Water District, Hydrologist, Planning Board, Selectmen</p>
<p><b>INVENTORY OF CONSERVATION LAND:</b> To create something for the public to view all conservation lands.</p>	<p>To make the public aware of the resources for Open Spaces.</p>	<p>Mapping</p>	<p>One year</p>	<p>Conservation Commission</p>
<p><b>PREPARE FOR OCEAN FRONT STORMS:</b> With threat of rising tides and more ocean front storms the community needs additional protection.</p>	<p>Develop ways to help protect the Town and its citizens along the Seacoast.</p>	<p>Stabilizing the Shale piles</p>	<p>One year</p>	<p>DPW, State of NH, Building Inspector</p>
<p><b>NEED FOR CLUSTER AND/OR POCKET NEIGHBORHOOD TYPE ZONING:</b> In order to protect our Open Space</p>	<p>In order to protect our Open Spaces we need to update our zoning so that homes are built closer together and open space is preserved.</p>	<p>Zoning Ordinance and Land Development Changes</p>	<p>One year</p>	<p>Planning Board</p>





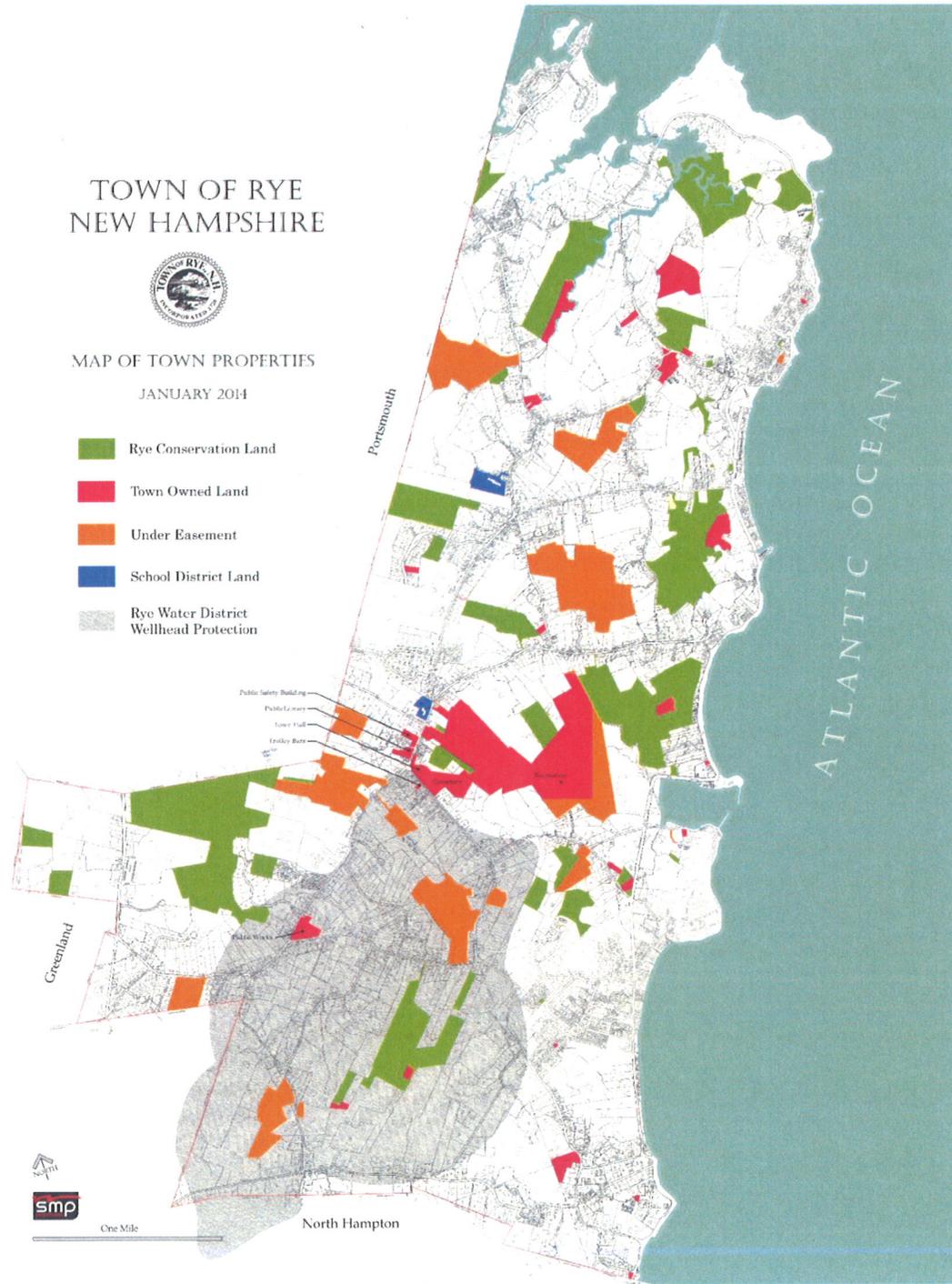


# Town of Rye Zoning Map

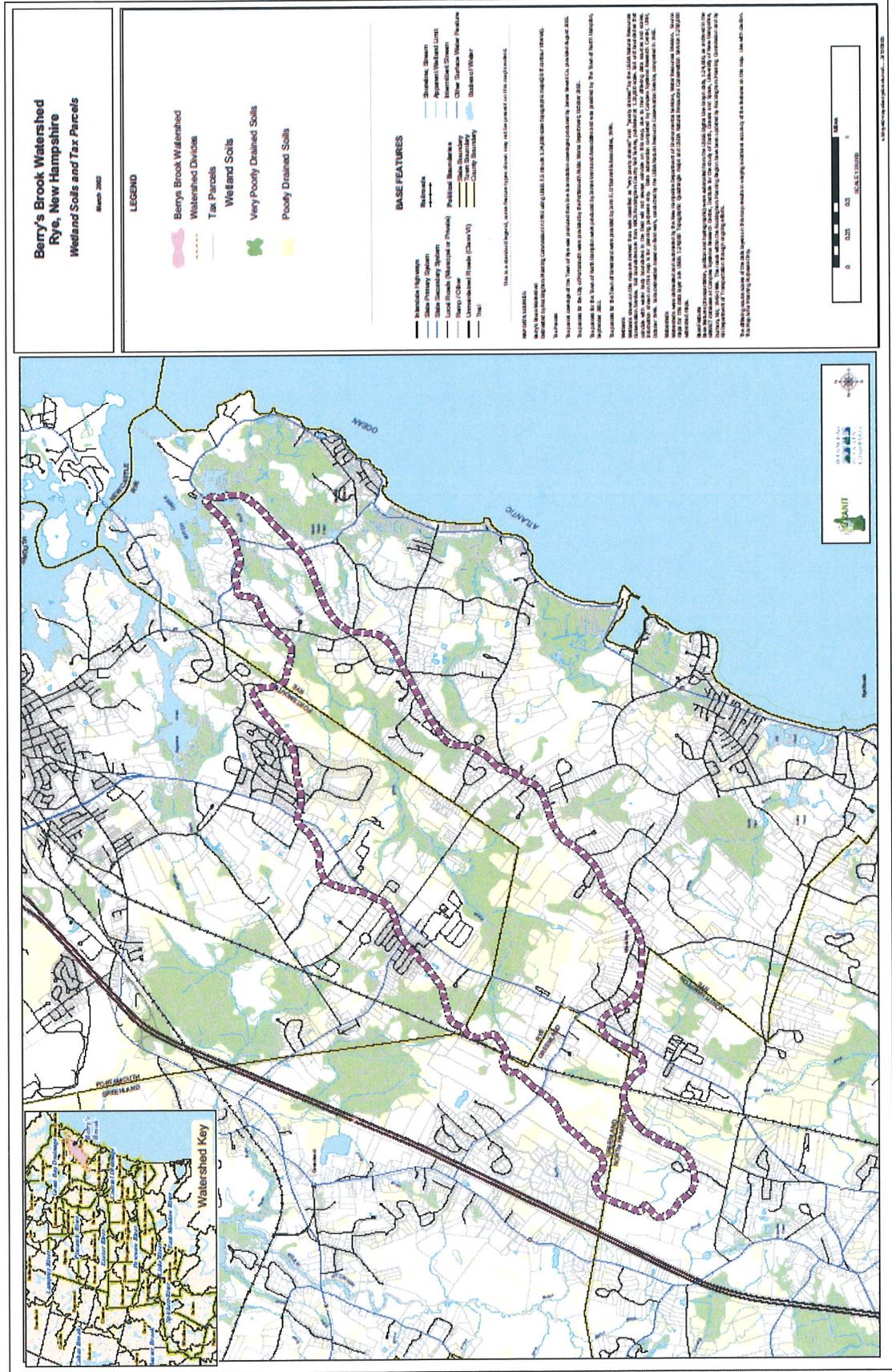




### Town of Rye, Town Owned Property



### Town of Rye, Berrys Brook Map Proposed Zoning Amendment Change



## CHAPTER 7 – ENERGY

### 7.1 INTRODUCTION

The use of energy - and its link with land use and resource protection - influences many facets of life in Rye today. Energy can affect municipal costs and operations, influence job growth and the local economy, and impact the natural resources and quality of life that are so important to Rye residents. This chapter in the Master Plan is an overview. The full report developed with assistance from the Rockingham Planning Commission, may be viewed on the Energy Committee's webpage at [http://www.town.rye.nh.us/Pages/RyeNH\\_BComm/Energy/index](http://www.town.rye.nh.us/Pages/RyeNH_BComm/Energy/index).

The overall vision for Rye is a community that supports and preserves its semi-rural character while simultaneously embracing 21st century technology, environmentally progressive strategies, and local business opportunities. Rye's energy policies will play a significant role in achieving this vision. Rye residents, land owners and business owners can benefit greatly by the Town becoming a more energy secure and sustainable community. Environmentally progressive policies with respect to energy generation, building standards, land use patterns, and transportation are critical to Rye's long term sustainability. Thus comprehensive policy decisions should be evaluated through the lens of energy and focused on efficiency, conservation and security.

Chapter 1 of the Rye Master Plan states, "*Our desires to see Rye altered are few.*" In order to preserve the quality of life in Rye, it is important to understand and plan for our future energy use. Not only do rising energy costs affect our Town's budgets and its economy, the use of non-renewable energy sources can adversely influence air and water quality and the health of Rye's residents. As energy costs rise, Rye can strengthen our local economy and preserve our environment by focusing on making better use of energy conservation, energy efficiency, our region's renewable resources, locally grown food, and sustainable land and water use.

### 7.2 VISION

This chapter of the Rye Master Plan was conceived to provide the guidance and tools required to increase energy efficiency and conservation, reduce the use of non-renewable fuels, lower greenhouse gas emissions, and reduce energy costs in Rye. The technology, equipment, and techniques to drastically reduce energy use are now readily available for our buildings, street lighting, and transportation. By reviewing all municipal decisions for energy efficiency and sustainability, Rye will not only reduce its operating expenses and lower its greenhouse gas emissions, but it will set an example for residents and business owners.

This chapter serves as an important first step to help the Town begin examining its energy usage, and develop and implement strategies to assist it in becoming a more secure and sustainable community. The overall vision of the energy chapter is to reduce the town's carbon footprint and to increase the town's energy security. This is accomplished through establishing a Town policy of energy-conscious decision making in every phase of municipal operations and capital improvements and by encouraging businesses and residents to do the same.

### Energy Efficiency and Conservation

Energy efficiency and conservation focuses on one main objective - reducing overall energy consumption across all sectors, thus reducing energy costs and environmental pollutants. Communities can achieve reductions in energy consumption by addressing the following:

- Efficiency of both existing and new buildings
- Transportation systems, choices and alternatives
- Street and outdoor lighting
- Municipal operations, such as water and sewer pumping
- Access to clean fuel choices
- Recycling, composting and reuse programs
- Consumerism of local products and services
- Healthy and locally grown food
- Community awareness and participation

This chapter supports the following vision statements relating to community energy security and planning.

- Provide outreach and assistance to homeowners and businesses on energy efficiency and reduction of carbon emissions
- Provide local examples as models for energy efficiency and improvement
- Promote useable public transportation for youth, seniors and local commuters.
- Promote use of bikes and walking for local errands and commuting
- Promote establishment and support of local meeting places and businesses to save on auto travel
- Promote building codes that include energy efficiency and smart growth principles
- Promote locally grown fruits and vegetables, locally raised meats, and locally caught seafood.
- Encourage organic gardening and lawn care using locally obtained soil amendments.

## **7.3 OVERVIEW/RATIONALE**

Like most towns in New Hampshire, Rye is heavily dependent on non-renewable energy sources, such as petroleum, coal, natural gas, and uranium. These fuels must all be imported, meaning that most of this money leaves the state and/or the country. Rye can improve its energy profile by using more native and renewable energy sources, like wood and other biomass, solar, wind, hydropower, and geothermal.

The increasing trend of carbon dioxide emissions to our atmosphere in recent decades has caused concern over its effect on public health, environmental ecosystems and climate worldwide. Concentrations of carbon dioxide, a byproduct of the burning of fossil fuels, have increased rapidly in the atmosphere as consumption of fossil-based fuels has also increased. Alterations to

Rye's climate will result in changes or decline in certain sectors of the economy, including winter tourism, agriculture, maple syrup production, coastal real estate values (due to sea level rise and increased storm intensity), and health costs associated with respiratory health and heat related illnesses.

*New Hampshire's "25 x '25" Renewable Energy Initiative*

Governor John Lynch announced the *25 x '25 Renewable Energy Initiative* in August of 2006. The Initiative's goal is for New Hampshire to obtain 25 percent of its energy from clean, renewable sources by the year 2025. New Hampshire's 25 x '25 Plan is being developed by the Office of Energy and Planning and the Department of Environmental Services. New Hampshire's renewable electricity is generated from a number of sources, mainly hydropower, wood-fired power plants, and landfill gas-fired generating stations

*NH Climate Action Plan*

The 2008 New Hampshire Climate Action Plan aims at achieving the greatest feasible reductions in greenhouse gas emissions while also providing the greatest possible long-term economic benefits to the citizens of New Hampshire. The most significant reductions in both emissions and costs will come from substantially increasing energy efficiency in all sectors of the economy by continuing to increase sources of renewable energy, and designing our communities to reduce reliance on automobiles for transportation. The NH Climate Action Plan calls for a reduction in emissions of 20 percent below 1990 levels by 2025, and 80 percent below 1990 levels by 2050.

*Climate Change*

Although this chapter is not specifically about climate change, its impact could affect quality of life in Rye. As Rye is a town with a long coastline, it is important to consider the potential future impacts of climate change including sea level rise, flooding, coastal erosion, increased intensity and frequency of storms, and the effects of changes in temperature and precipitation. Climate Change is addressed in Chapter 6, the Natural Resources Chapter.

#### **7.4 RYE ENERGY COMMITTEE**

There continues to be strong support for energy efficiency planning and implementation among Rye residents. In support of an effort lead by the Carbon Coalition in 2007-2008, 164 municipalities – including the Town of Rye - adopted the New Hampshire Climate Change Resolution that calls on the federal government to prioritize climate change policy and enables the formation of a local energy committee (LEC) to address energy efficiency and conservation, emission reductions, and other energy related issues. Town vote in March 2007 authorized the establishment of an energy committee, and the Selectmen established the Rye Energy Committee in July 2007 as "*a voluntary energy committee to recommend local steps to save energy and reduce emissions.*" After subsequent annual reinstatements, the committee was renewed for three years in 2013.

The Rye Energy Committee works in three main areas and has accomplished the following:

**A. Municipal Energy**

- Worked with town officials to have audits done of 7 major town buildings.
- Assisted town in procuring \$377,561 of EECBG grants for efficiency projects.
- Compiled 2011 Rye Energy Report of annual municipal energy use and costs.
- Initiated no vehicle idling initiative in town.
- Partnered with the Rye schools to run a Carbon Challenge resulting in an annual savings of over 600,000 lbs of CO<sub>2</sub> in 64 households.
- Partnered with the Long Range Planning Committee the Rockingham Planning Commission to create this Energy Chapter.

**B. Home Energy**

- Held annual art/energy projects as a means to promoting energy awareness.
- Organized talks on energy related topics by UNH professors John Carroll, Cameron Wake (two events) and environmental activist Bill McKibben.
- Launched the annual Stay Warm-Save Money program to inform residents of the latest techniques and financial incentives to save energy at home.
- Donated a Thermal Leak Detector to the Rye Public Library to be used along with the library's watt meters to evaluate home energy use and waste.
- Sponsored film series and book discussions.

**C. Local Food**

- Initiated the Rye Farmer's Market in 2008.
- Held home gardening workshop.
- Organized tree grafting workshop with Rene Gingras of UNH to preserve heritage apple trees from the Goss Farm.
- Worked with Conservation Commission on the Goss Community Farm initiatives and to establish a Community Supported Agriculture program.

## **7.5 ENERGY PROFILE OF MUNICIPAL FACILITIES**

### ***Why is it Important to Keep Track of Energy Use?***

Although the energy used in municipal operations is fairly small compared to that of the residential and commercial sector, Rye can lead by example and reduce the energy used in its buildings and operations, outdoor lighting, and vehicle fleet. Energy improvements will save taxpayer dollars, will create a model for businesses and residents to adopt, and will help to create the infrastructure needed for certain technologies to be viable.

Over a period of years, community energy profiles can offer a long term view of municipal energy use and costs. Rye began tracking energy use of its major buildings over the period 2007-2009. We now have our seven largest municipal buildings benchmarked in the EPA Portfolio Manager online tool.

***What Actions has the Town Taken to Date to Reduce Energy Use?***

As of 2012, Rye has taken the following steps to increase energy efficiency, resulting in 12-23% energy savings (through Dec. 2011) per building compared to the baseline year in Portfolio Manager.

- Performed energy audits on seven largest buildings in 2007-2009.
- Used federal EECBG grants to install a ground-source heat pump and a solar-powered attic fan in the town hall, to increase ceiling insulation in the library, and to replace the Rye Elementary School boiler with a more efficient one.
- Installed a waste oil boiler at Public Works to make use of 500 gallons of waste oil per year which was formerly donated to a greenhouse.
- Upgraded lighting in five municipal buildings through the PSNH Smart Start program, a pay-with-your-savings incentive.
- Improved lighting, insulation, and air sealing in the schools.
- Replaced an old refrigerator in the Town Hall.
- Instituted behavioral changes in the recreation buildings, eg. turning off lights when leaving.
- Insulated a sewer pump house to save propane for heating.

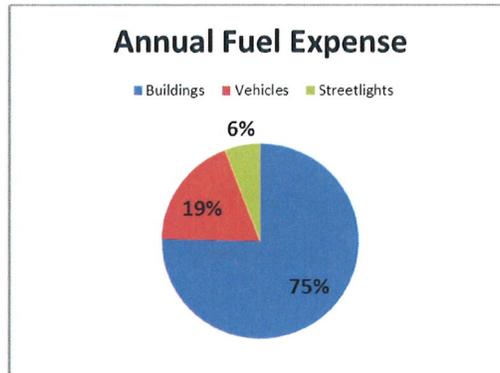
***Summary of Municipal Energy Use***

While it is difficult to quantify residential and commercial energy use in town, we have an accurate record of the town’s municipal energy usage. The Town of Rye uses fuel oil and propane to heat its buildings, electricity for outdoor lighting and indoor electric equipment, and gasoline and diesel for its vehicles. The Rye municipal sector’s energy cost, emissions, and usage for buildings, vehicles and streetlights is presented below. The municipal sector of Rye spent roughly \$424,273 on energy in 2011, and emitted 15,029 lbs. of carbon dioxide into the atmosphere. Seventy-five percent of Rye’s fuel expenses were for buildings, 19 percent for vehicles and 6 percent for streetlights. More information on Rye energy use is available in the 2011 Rye Energy Report on the Energy Committee page of the Town website.

**Figure7-1  
Rye Municipal Energy Use Summary\* (2011)**

	Buildings		Vehicles		Streetlights		Grand Total
	#	% of total	#	% of total	#	% of total	
Annual Fuel Expense	\$319,774	75%	\$79,849	19%	\$24,650	6%	<b>\$424,273</b>
Annual CO2 Emissions (lbs)	2138720	79%	518881	19%	54252	2%	<b>2711853</b>
Annual Energy Use (MMBtu)	11556.9	77%	3272.5	22%	199.5	1%	<b>15028.9</b>

**Figure 7-2  
Municipal Energy Costs by Sector\* (2011)**



\* Includes Rye Water precinct, Rye Beach precinct, Jenness Beach precinct, Water District, School District & Sewer District.

**Buildings**

In 2011, Each of Rye’s town buildings used energy as shown in Figure 7-3. The buildings with the highest energy usages (Elementary and Middle Schools, Public Safety, Public Library, Town Hall and Public Works) and the Recreation Building have had an energy audit done during the last 5 years and are benchmarked in Portfolio Manager.

**Figure 7-3  
2011 Rye Energy Usage and Intensity - Buildings & Operations**

<i>Building/District/ Precinct</i>	<i>Square Feet</i>	<i>Electricity (kWh)</i>	<i>Fuel Oil (Gal.)</i>	<i>Propane (Gal.)</i>	<i>CO2 Emissions (lbs)</i>	<i>Total Annual Cost</i>	<i>Energy Intensity (kBTU /sq ft)</i>
Jr. High School	52,155	221,760	22,999	364	698,418	\$92,402	107
Elementary School	50,467	280,720	18,716	342	651,356	\$91,877	111
Public Safety	19,818	148,480	6,323		264,466	\$37,196	130
Public Library	11,097	71,480	3,365		134,498	\$20,521	103
Town Hall	5642	33,590	1,945		71,335	\$10,906	112
Public Works	6596	36,570	810		48,409	\$8,737	79
Recreation	2452	5,820		947	16,814	\$3,853	70
Recycling		9,240			7,650	\$1,811	
Swap Shop		1,680			1,391	\$614	
Snack Shack		325			269	\$216	
Water District Office & Pumps		153,532		1,644		\$32,810	
Sewer Pump Houses		55,652		716		\$10,859	
Rye Beach Precinct House		854	1,400			\$5,214	
<b>Totals</b>		1,019,703	55,558	4,013	1,894,626	\$317,016	

***Vehicles/Transportation***

Town vehicles use diesel fuel and gasoline as shown in Figure 7-4, broken down by department.

**Figure 7-4  
Rye Energy Use – Vehicles**

<i>Department</i>	<i>Gasoline (gallons)</i>	<i>Diesel (gallons)</i>	<i>Co<sub>2</sub> Emissions (lbs)</i>	<i>Total Annual Cost</i>
<b>Police</b>	8,817		172,488	\$27,940
<b>Public Works</b>	559	8,810	208,141	\$30,933
<b>Fire</b>	847	911	36,971	\$5,701
<b>Ambulance</b>		1,220	27,300	\$4,037
<b>Cemetery</b>	416		8,141	\$1,319
<b>Beach Precinct</b>		116	2,592	\$383
<b>Transfer Station</b>		75	1,668	\$247
<b>Water Dept.</b>	2,956		57,822	\$8,681
<b>Miscellaneous</b>	192		3,760	\$609
<b>Totals</b>	<b>13,787</b>	<b>11,131</b>	<b>518,882</b>	<b>\$79,849</b>

***Street and Outdoor Lighting***

As a semi-rural town, it is important to be cognizant of how the effects of outdoor lighting influence the nighttime character of Rye and affect its energy costs. Good lighting design for our residences, businesses, municipal buildings, streets and parking lots not only saves energy, it protects wildlife and preserves our view of the night sky.

**Figure 7-5  
Rye 2011 Outdoor Lighting Costs**

<i>Building/District/Precinct</i>	<i>No. of Streetlights</i>	<i>Electricity (kWh)</i>	<i>CO<sub>2</sub> Emissions (lbs)</i>	<i>Total Annual Cost</i>
<b>Rye Water Precinct</b>	9 + 12 other area lights	14,557	13,324	\$5,949
<b>Jeness Beach Precinct</b>	69	35,113	32,574	\$15,000*
<b>Rye Beach Precinct</b>	68	8302	7702	\$3495
<b>Water District</b>	1	509	472	\$211
<b>School District</b>	1	509	472	\$206
<b>Totals</b>	160	58,990	54,544	\$24,861

\*estimate

Energy can be saved and light pollution can be avoided by choosing efficient lighting fixtures with full cutoff design. Full cutoff fixtures shine light in the only direction it is needed – downward – not sideways or upward. The International Dark Sky Association website, [www.darksky.org](http://www.darksky.org) is an excellent resource for finding efficient, full cutoff fixtures. LED lamps use up to 90% less energy and last 20 times longer than incandescent. Metal halide (MH) and high pressure sodium (HPS) lamps use about 50% less energy than incandescents.

Although only 6% of Rye's 2011 municipal energy budget was spent on outdoor lighting and streetlights, much of the \$24,861 spent can be saved by using more efficient lighting technology. Many of Rye's lamps are the mercury type, which are lower efficiency and contain hazardous material. PSNH offers significant incentives to switch outdoor lighting to LED, MH, or HPS lamps.

There are two sample lighting ordinances in the NH Office of Energy and Planning (NHOEP) Outdoor Lighting Technical Bulletin, one simple for a smaller town, and one more complex for an area with large amounts of development. Rye may want to consider these documents when updating its outdoor lighting ordinances.

### ***Indoor Lighting***

Switching to compact fluorescent (CFL), LED, or high efficiency fluorescent lamps and ballasts achieves significant energy and cost savings. The NHSaves catalog and PSNH offer financial incentives for making the switch. Commercial, municipal, and school operations can derive additional benefit from lighting controls such as timers, occupancy sensors, and motion detectors.

### ***Energy Star<sup>®</sup> Electronics and Appliances***

Rye can establish an Energy Star procurement policy for its municipal facilities. Energy Star ([www.energystar.gov](http://www.energystar.gov)) is a joint effort between the U.S. Dept. of Energy and the EPA to help consumers "save money and protect the environment through energy efficient products and practices." An item with the Energy Star rating uses at least 20 percent less energy than one without the rating. The website [www.energystar.gov](http://www.energystar.gov) lists the energy use by model number of thousands of electrically and fuel-driven products. Computers, copiers, electronic equipment, household appliances, HVAC equipment, and commercial equipment are available with the Energy Star rating. Even homes can be constructed to earn an Energy Star rating for the entire structure.

Energy bills can be substantially reduced through strict use of Energy Star products. Items can be replaced with Energy Star-rated products upon failure. Sometimes it pays to replace a piece of equipment, such as an old refrigerator, before the end of its life.

### ***Renewable Energy and Efficient HVAC Equipment***

Several renewable energy options are practical for Rye residences and businesses. Many of Rye's buildings are well-positioned with good southern exposure to benefit from solar photovoltaic (electric), solar thermal (hot water), and solar heating systems. Designing buildings to maximize passive solar heating and day lighting can reduce the structures' energy costs by up to 50% at little extra cost. Areas of the coastline may have a high enough average annual wind speed to benefit from electricity provided by a wind turbine. Renewable energy incentives are available at the local, state, and federal levels to encourage the adoption of these systems.

Wood is a local energy source, and many homes already take advantage of wood and wood pellet systems for heating. Ground-source and air-source heat pump systems can be up to 400% efficient and can greatly reduce heating and cooling costs.

## 7.6 LONG-TERM PLANNING FOR ENERGY SECURITY AND SUSTAINABILITY

### *Sustainable Community*

Sustainability is the ability to provide for present needs without damaging the ability of future generations to provide for themselves. The primary philosophy of sustainable growth and development is that new development and redevelopment can be done in such a way that they provide environmental, economic, and quality of life benefits to all members of the community. Without proper attention to the effects of unmanaged growth, communities are at risk of exhausting their environment of what makes them unique and desirable places to live, work and visit.

The built environment has a profound impact on our natural environment, economy, health and productivity. Sustainable development is a pattern of resource use that aims to meet the needs of the community today and protect its needs of the future, while preserving the environment. Sustainable development ties together concern for the carrying capacity of natural systems with the social challenges facing individuals and communities. Communities can achieve sustainable development by integrating land use and resource based strategies with economic development approaches that benefit the local environment and quality of life.

## 7.7 RELATIONSHIPS BETWEEN ENERGY AND COMMUNITY PLANNING

The infrastructure for energy use and delivery can influence land use decisions about where growth occurs and where we live, work and recreate. NH State law encourages energy efficient patterns of development through zoning that does not unreasonably limit development of alternative and renewable sources of energy. Reductions in energy consumption can also be achieved through implementation of conservation measures, smart growth, and development of alternative transportation systems. These concepts are described in the table below.

**Figure 7-6  
Integrating Energy Planning with Community Planning**

<b>Energy Conservation Measures</b>	<ul style="list-style-type: none"> <li>▪ Energy efficiency in buildings, fixtures and infrastructure.</li> <li>▪ Behavioral changes including trip consolidation, ride sharing, reduction in lighting and appliance use, efficiency in equipment and other products, recycling and composting (post-consumer waste)</li> </ul>
<b>Smart Growth Principles</b>	<ul style="list-style-type: none"> <li>▪ Incorporate a mix of uses to provide a variety of housing, employment, shopping, services, and social opportunities for all members of the community.</li> <li>▪ Preserve working landscape by sustaining farm and forest land and other rural resource lands to maintain contiguous tracts of open land and to minimize land use conflicts.</li> <li>▪ Provide choices and safety in transportation to create livable, walkable communities that increase accessibility for people of all ages, whether on foot, bicycle, or in motor vehicles.</li> <li>▪ Protect environmental quality by minimizing impacts from human activities and planning for and maintaining natural areas that contribute to the health and quality of life of communities.</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Involve the community in planning and implementation to ensure that development retains and enhances the sense of place, traditions, goals, and values of the community.</li> <li>▪ Manage growth respecting the local community tradition, but work with neighboring towns to achieve common goals and address common problems more effectively.</li> </ul>
<b>Alternative Transportation</b>	<ul style="list-style-type: none"> <li>▪ Public transit infrastructure including access, convenience, and competitive pricing</li> <li>▪ Voluntary actions such as carpools, rideshare programs, and park and ride facilities</li> <li>▪ Accommodations for bicycles and pedestrians.</li> </ul>

**Figure 7-7  
Examples of Sustainable Principles and Practices**

<i>Principles</i>	<i>Sectors</i>	<i>Practices</i>
Efficient use and production of alternative energy	<b>WATER</b>	<i>Indoor</i> Water Conservation Water Efficient Appliances and Fixtures Water Budget
Efficient use of water and other water resources		<i>Outdoor</i> Pervious Materials Xeriscape Greywater Irrigation Harvested Rainwater
Protect quality of the air, water, land and other natural resources	<b>ENERGY</b>	<i>Construction</i> Passive Solar Design Solar Hot Water Geothermal Heating and Cooling Systems Photovoltaic Systems Programmable Thermostats
Reduce waste, pollution and environmental degradation		<i>Outdoor</i> Energy Efficient Lighting and Landscaping
Protect human health and safety	<b>BUILDING MATERIALS</b>	Reduce, Reuse, Recycle Purchase local and regional materials
Minimize impacts on local and worldwide ecosystems	<b>SOLID WASTE</b>	Recycling and Compost Systems Construction Waste Recycling
Local Food Production	<b>FOOD</b>	Community and Backyard Gardens Farmers Markets Locally sourced products

Sustainable practices are aimed at guiding how new development is constructed to attain energy efficiency and conservation, and to promote use of sustainable materials and energy.

- Performance-based standards and building codes will ensure that all new buildings are constructed to a minimum efficiency level, for example using LEED standards or EPA Energy Star standards.

- Construction standards can ensure energy efficiency, use of products that provide long term durability, and use of sustainable and recycled materials (including salvaged, refurbished or reused materials).
- Site selection can focus preferentially on previously developed land to conserve historical properties, open space, and prime agricultural land.
- Site design techniques that take advantage of sun exposure, differences in microclimate, and landscaping reduce a development's energy demand and overall energy consumption.
- Energy efficient planning principles and provisions to allow for renewable energy generation can be implemented through subdivision and site plan review regulations, zoning ordinances and building codes.

### ***Energy Conservation and Renewable Energy***

Energy is central to sustainable development efforts. It affects all aspects of development -- social, economic, and environmental -- including livelihoods, access to water, agricultural productivity, health, population levels, and education. Energy efficient design and planning techniques can be used in constructing housing and non-residential developments, prescribing density limits, integrating land uses, and designing transportation systems and infrastructure.

### ***Building Efficiency***

Green building practices offer an opportunity to create environmentally-sound and resource-efficient buildings by using an integrated approach to design and efficiency. Green buildings promote resource conservation, including energy efficiency, renewable energy, and water conservation features; consider environmental impacts and waste minimization; create a healthy and comfortable environment; reduce operation and maintenance costs; and address issues such as historical preservation, access to public transportation and other community infrastructure systems. The entire life cycle of a building and its components is considered, as well as the economic and environmental impact and performance.

## **7.8 RECOMMENDATIONS**

In summary we offer recommendations for incorporation of energy efficiency and energy conservation into planning, community education and outreach, and municipal management practices. These may be viewed on our webpage on the Town website at: [http://www.town.rye.nh.us/Pages/RyeNH\\_BComm/Energy/2011report.pdf](http://www.town.rye.nh.us/Pages/RyeNH_BComm/Energy/2011report.pdf)

## CHAPTER 8 – CIVIC LIFE

### 8.1 VISION

We recognize that working together gives us our hometown feel. This takes many forms, such as encountering each other as we get our mail, visit the transfer station or do business at Town Hall. It is expressed through our involvements in social groups; supporting our children, addressing town issues, volunteering on Town boards/committees/commissions and participating in service organizations and other ad-hoc forums.

We recognize that it takes the energy and idealism of our young; as well as, the experience and wisdom of our elders to get things done well; and it takes the fresh eyes of our newcomers and the histories of our long-timers to create our future.

Thus our vision of civic life in Rye includes the following:

- Increasing cultural and recreational opportunities for our residents to share;
- Increasing voter turnouts;
- Expanding lists to serve on Town boards, committees and commissions;
- Recognizing residents of all ages will recognize that they have roles that are important in making their town their home; and
- Enhancing and preserving our out-of-doors through informed stewardship.

We want to protect, preserve, and reinforce the semi-rural character and integrity of our Town Center. Residents as well as visitors should feel a palpable identity that they are in a place that is uniquely Rye. To that end we will create an atmosphere that will welcome small locally owned retail establishments such as coffee shops and micro bakeries where people may congregate. It will be a physically welcoming part of Town characterized by human-scale design and architecture reflecting our historic roots.

### 8.2 Overview

There are many aspects that go into creating a sense of civic life within a community. Basically, it comes down to people. It is the coming and going of the many people that live in, pass through, do business, and visit that give a town its personality. It is people that give Rye its character. Every person, in some way, makes his or her mark.

### 8.3 CIVIC ENGAGEMENT

Rye has experienced a spectrum of views toward getting involved in local government. Residents want to maximize the extent to which its local laws, ordinances and regulations reflect their personal values and those that they hold of their community. The only means to that end is citizen involvement.

There are numerous ways for people to get involved. Some citizens of Rye are making it a better place through their professions and volunteer efforts. These include our teachers and librarians, nurses and doctors, police and fire personnel, Town Hall and public works employees. Our elderly citizens also bring a wealth of experience and history that helps narrow our focus on the past and guide us to better manage the future. All of our small businesses lend character and provide vital services that would otherwise require an out of Town trip.

There are numerous groups staffed by our volunteer neighbors who fill the boards, committees and commissions that help define this town. A partial list includes; the Beach, Sewer, Historic, Heritage and Mosquito Control Commissions. There are the trustees for the Town's trust funds, the cemeteries and library. Rye volunteers serve all the Rye Water District, Zoning Board of Adjustment, Planning Board, Budget and Capital Improvement Project committees.

However, there are also numerous groups not formally linked to Town government that help to shape the Town. Among these are; the Girl Scouts, Boy Scouts, school project groups and sports teams who make us proud. Also included but not limited to are the PTA and Eagle Scout programs. None of the above activities would be possible by devoted adult volunteers. Additionally our Churches remind us of Rye's historic roots and serve a vital spiritual role.

Rye SERVE (Serving Elder Residents through Volunteer Efforts), the Garden Club, the Lions Club, Historical Society, Civic League and all other volunteer entities as well. We have people involved with groups outside of Rye that provide services to our residents. This includes people involved with Families First, Red Cross, the Seacoast Land Trust, and UNH's Marine Research Program. There are many less visible contributors as well. Rye is what it is because of the efforts of many people through the years.

Many Rye residences commute out of Town and / or to other states to work. As a result, some newcomers may not have the same level of investment in their adopted community as long-time residents have had. The amount of time it takes for individuals to really feel ownership in the shaping of a community could be highly variable due to a variety circumstances.

This does not imply that newcomers are not involved. These individuals are more likely to become involved in more "immediate" efforts. For example, adults would volunteer for groups that focus on their kids' age groups, like sports or scouts. Individuals would join churches or conservation groups, gravitating toward established topical interests with which they are already familiar.

It is incumbent upon our well-established residents to extend their friendly, involved hands to newcomers and offer the hospitality that makes Rye "home". Increasing participation will rely on extending invitations to contribute. Personal introductions to community participation are most effective. Through experience and by example everyone will learn they are qualified to make a difference here by virtue of their residency, intelligence and experience.

We should also foster our involvement of children and youth in Town politics. These adults-in-training can learn at young ages that local politics is approachable and that their voices carry weight. We will welcome the attendance of our youth at the various regularly held board meetings.

The Town should also recognize the implications of changes in household characteristics. The assertion that we want to encourage younger people to live here carries with it the responsibility to provide the services they seek. The availability of jobs, affordable housing and other issues that affect the ability to live in Rye should be addressed. Because of the household dynamics we should also be aware that day care services should be studied and addressed; as well as, adequate safety should be an issue to ways for walking strollers and a need for playgrounds where children live.

In past visioning sessions there were further suggestions utilizing the library and the recycling center to disseminate news of interest to Rye residents. The suggestions were weighted towards posting all information on the Town web site. Other less popular suggestions were; a cable TV link to our meetings, increased frequency of the Town newsletter-and a Town "hot line". As of May 1, 2013, the Town provides broadcasts to meetings of Town boards at the Town Hall via the internet with live on-line streaming and on demand access to archived broadcasts including those per Article 9 of the 2013 Warrant.

In the decade since the survey was conducted, some of these recommendations have already been incorporated. Meetings are posted on the Town website, in addition to that required by State Law. The authors of the Town newsletter should be thanked for their good work. Relatively few people thought the newsletter format should be changed.

Communications with the Town is a two-way street. Citizenship is a valuable asset and should not be taken lightly. If the character of Rye is to be maintained while moving into the 21<sup>st</sup> century then the citizenry needs to be involved. There are various opportunities all of which are described on the Town web site. A more hands on approach is attendance at various meetings where the course of Rye is plotted. The most obvious and comprehensive is the deliberation meeting held each February.

All Rye residents should be encouraged to subscribe on the Rye website for e-alerts. This will provide timely information regarding Town events and meetings.

#### **8.4 TOWN CENTER**

Several recommendations for Rye's Town Center came from past visioning sessions. Participants embraced a vibrant center with small-scale local commerce to augment the government services already available. This vision includes increased pedestrian access and as mentioned in vision statement limited retail opportunities. Nobody wants to increase traffic or parking congestion, we recognize that we can plan wisely to avoid those consequences.

It is worth recognizing some of the opportunities:

- Safe walkways within the Town Center;
- Senior housing near the Town Center;
- Protect the scale, proportion and semi-rural character that exist;
- Increase recreational opportunities for all ages;
- Enhance the role of the library for communications on Town issues.
- Create a natural outdoor experience in Parson's field by adding more recreational opportunities for children; and
- Establish an internet "hot Spot" in our Town center. By doing so we encourage our citizens and visitors to enjoy the ambience of the Town center.

The combination of future Town Center amenities and its usage will provide opportunities for social interactions for all members of the Community. With increased resources, this will contribute to the social and economic vitality of Rye.

In achieving the desired results we will need to struggle with our resistance to change. We like our Town uncluttered. We associate retail with traffic. The creation of zoning was based upon the notion that uses should be separated. Large lots were thought desirable in order to protect personal space.

We have since learned that in Town, i.e., in our Town Center, it is appropriate to concentrate some residences and services both for convenience and to protect larger tracts of land away from the center. Providing housing over shops creates affordable housing. Low Impact development near services reduces traffic.

## **8.5 HISTORICAL AND CULTURAL RESOURCES**

### **Introduction**

We understand the importance of the implementation of effective policies and controls to protect the special character of the Town and preserve its historical, cultural and architectural resources. These resources, which include structures, farms, historic sites and seacoast, contribute to the community's quality of life and the Town's visual beauty. Historic buildings and sites are integral to Rye's semi-rural and seacoast character. Recent development in residential areas, particularly the coastal zone of the Town, has prompted renewed discussion of the value of historical structures and locations.

### **Vision**

It is in the public interest to protect the character and beauty of the Town of Rye, through both voluntary and regulatory measures. The challenge is to maintain Rye's semi-rural and coastal atmosphere by effectively managing growth and development. Historic, cultural and environmental preservation should be integral to land use planning for growth and change of all private and public development to insure that development is compatible with the desired semi-rural and coastal character of the Town.

## Overview

The Town of Rye is fortunate that many buildings, landscapes and seascapes, illustrative of all periods of town history, remain intact. The potential exists to preserve the fabric of this special semi-rural and coastal townscape for generations to benefit from and enjoy.

## Chronological Periods

*Native Settlement* – By 1600 tribes of the Penacook Confederacy (Algonquin stock), most notably the Piscataqua tribe, had been living in this seacoast area for approximately 1,000 years. Signs of human activity date back several thousand years before then.

*European Exploration – Settlement* – Itinerant fishermen and others used and explored Rye's shores especially in the 1500s and early 1600s. In 1605, Samuel de Champlain landed at Odiorne Point. In 1614, Captain John Smith landed at the Isles of Shoals. In 1623, David Thomson and ten others established the first permanent settlement at Pannaway Plantation, now Odiorne Point.

*Sandy Beach Settlement to 1726* – From 1675 to 1713 attacks and reprisals by Europeans and Indians made life precarious for the approximately 100 people living in Sandy Beach, c. 1700. In 1692, Indians massacred settlers in the location of what is 605 Brackett Road today. After many years of petitioning the Provincial Legislature, parish status was granted in 1726 and the name of Rye was adopted in honor of the ancestral home Town of Rye, England of the founding Jenness family.

*1726 - 1785* – After building its first church and developing a real community, Rye became incorporated as an independent town with officials and clear boundaries by the New Hampshire Legislature in 1785. During the Revolutionary War, thirty-seven Rye men, including two freed slaves, died in battle.

*Early national period – 1785 - 1830s* - Rye grew to over 1,000 residents and on April 3, 1814, as the War of 1812 ended, Rye fought off the British under the command of General Thomas Goss in the Battle of Rye Harbor. The citizens participated in active land and sea trading and interaction with other seacoast communities and beyond.

*Victorian Resort Era: 1830s - Civil War - late 1800s* - From early fish shacks and fish parties at Ephraim Philbrick's farmhouse to first hotels in the 1840s to the Golden Era of the 1860s, increasingly more summer guests found their way to Rye with its eight hotels and twenty-five boarding houses. Rye developed a national and international reputation as a summer resort area. Significant benefits flowed into the local economy from the resort activities.

The Civil War had a major impact on Rye as eighty-six men served and thirty-three paid a bounty to avoid service. Town reports from 1863 indicate the continuing challenge and expense of building, maintaining and clearing roads after storms. The Cable House (now privately

owned) on Old Beach Road in Rye was the office for the first undersea transatlantic telegraph cable run from Ireland through Newfoundland to Rye in 1874. The 1880s and 1890s saw greatly increasing summer populations enjoying the beauty of Rye's natural coastline and the amenities of its fancy hotels and boarding houses.

*Early 20<sup>th</sup> century through World War I* - A well-established Town government functioned at the renovated Town Hall. Rye adjusted to and benefited from long-established regular railroad service, the advent of the trolley in 1899 and the registration of the first automobile in 1913. In 1902, Ocean Boulevard was the last of Rye's original roads to be completed. Residents experienced change and growth with early 20<sup>th</sup> century electrification and new opportunities with regular employment at the Navy Yard. In 1905, Rye Beach separated as a Village District/Precinct. Thirty-nine Rye residents served in World War I and three died.

*The 1920s, the Great Depression, World War II* - The end of the Victorian Era, World War I and its aftermath, and Prohibition combined to create Rye's version of the Roaring 20's. New improvement groups such as Rye Harbor and Jenness Beach emerged. The fabulous resort hotels: the Farragut, the Drake House, the Ocean Wave, and the Wentworth were still going strong.

In 1934, the consolidation of Rye's four schools into one new center school was a major change.

The new jetties in 1939 made Rye Harbor a safe haven.

During the Great Depression, Rye did not hit 25% unemployment in 1933 but many were out of work and needed new public assistance from the federal government. Steady population growth continued because of military job opportunities in the seacoast. As World War II came on, it boosted the local economy. Two hundred and forty-four Rye residents served in World War II with only one death.

*Midcentury through the 1960's* - Post-War growth resulted in growing pains, including refuse disposal and unregulated building. In the 1950s and 1960s the advent of planning/zoning boards, the Historic District Commission and the Conservation Commission helped Rye to meet preservation and conservation challenges. These town groups demonstrated the need for organized citizens' boards to preserve the Town from rampant growth and environmental degradation. Beach issues emerged as the expanding population jostled for finite space. The Rye Civic League, with its monthly Town News, gave citizens a voice and a chance to engage in town issues. The first Master Plan was adopted in 1964 with citizen input.

*The 1970s* - In the midst of war and national recession, Rye was at its best. The citizens and the Town helped to defeat the Onassis Oil Refinery proposal. A great three-day celebration to honor the 250<sup>th</sup> anniversary of its parish status and the national Bicentennial was held. Citizens formed the Rye Historical Society. The Town pioneered the establishment of a recycling center. Citizens also worked together to form the Parsons Park Corporation which preserved fifty acres at the center of Rye.

*The 1980s to the present* –The current period is characterized by significant struggles with growth, housing developments and pollution, with resulting growth of town government and continued citizen participation in Town issues through informal and formal groups. Conservation work moved forward in the areas of salt marsh restoration and the purchase of land and easements. The Zoning Ordinance was amended to protect buildings over fifty years of age. Public buildings were expanded as the population broke the 5,000 mark. Many initiatives for private and public building and land and water preservation occurred through easements, purchase, and restoration. Rye has grown five-fold from the early 1800s and has managed to preserve many of its historical and cultural sites and vistas. There is legitimate concern, however, that the pressure to build more and bigger buildings will deprive the Town of its scenic beauty and semi-rural coastal character.

### **Significant Properties and Resources**

In Rye, there are approximately 350 buildings built before 1950. Some of these will require considerable care. Some of these are located in proximity and together could constitute an historic district. Among them are the oldest houses and barns from the 18<sup>th</sup> and 19<sup>th</sup> centuries: the Town Hall, Sugden House (part of the Seacoast Science Center), three surviving 19<sup>th</sup> century village school houses (which are now privately owned), the Library, and the Junior High School. The Drake House and Locke Bathing Pavilion/Beach Club are two Rye Beach examples.

There are many sites and landmarks around Town whose preservation would educate the public about Rye's past: Grange Park, Rye Harbor, the Veteran's Memorial in Rye Center, historic graveyards, Central Cemetery, buildings which have served as businesses over many years (Tate and Foss is the fourth occupant of their building since 1870 when it was a general store; Christine's Crossing is also the fourth to use that early 19<sup>th</sup> century building.)

*Rye Harbor* – In active use from the earliest times of Rye's settlement, the harbor was originally dug by hand in the 1790s and dredged by machines in the 1930s and the 1960s and the 1990s. It has been a bustling port since the 1800s. The jetties were built in 1939. The state pier was built in 1962. The south side fishing shacks were landmarks for years and houses continue to be built along the southern edge of the Harbor. Moss Cottage was the original Saunders Restaurant from the early 1900s to late 1960s. Expanded under new ownership, it remained open until the fall of 2010 when, after significant local opposition, it was torn down for housing.

### **The Churches of Rye –**

*Rye Congregational Church* at 580 Washington Road in the Historical District is the fourth church to be erected on the site, originally known as Rye's Meeting House Hill. The first meeting house was erected in 1725, after a petition of the local inhabitants to the Governor of the Province of New Hampshire to establish a parish. The meeting house was built by the Town and used for public worship and for Town meetings. "The Church of Christ in Rye" was the second meeting house. Constructed in 1755, it was 40' by 60' with a tower. In 1836, the Congregational Society formed to erect the third structure. In 1891, extensive changes were made including seven outside steps and the installation of pews. The Rye Christian Church merged with the Congregational Church in 1945 to form the Bethany Congregational Church. In 1957, a Parish House connected to the church was built. Fire completely destroyed the third church on the

night of March 19, 1959. With strong congregational and community support the church was rebuilt in 1960 and the first services were held at Easter in 1961. In 2000, the Rye Congregational Church organization purchased the buildings from Bethany Church. It is a Rye historical and cultural landmark.

*St. Andrew's-by-the-Sea* is located on Church Road in Rye Beach. In the late 1800s, Rye was a summer destination with grand hotels and rooming houses filled with vacationers. Church services were important. In 1876, land for a new Episcopal church was given to the Bishop of New Hampshire by Frank and Lizzie Philbrick. The first service in the chapel was held on August 4, 1876, before the chapel was completed in 1877 with the bell tower. St. Andrew's is an example of a rural stone chapel embellished by wood trim, of the late Gothic Revival style. A significant architectural detail of the interior is the first window on the south side created in memory of Ogden Nash, a renowned poet and a member of St. Andrew's for 25 years. St. Andrew's was placed on the National Register of Historic Places by the US Department of Interior in 2002.

*Gosport Chapel* is located on Star Island at the Isles of Shoals. Gosport was incorporated on December 24, 1715 and annexed to Rye on March 14, 1876. The stone church, built after fire ravaged several wooden churches on the site, was dedicated on November 29, 1800.

*St. Theresa's Catholic Church* located at 820 Central Road in Rye Beach was built in 1947. It is part of the Manchester Catholic diocese.

*The Town Hall* was originally a Methodist church built in 1839 sold to the town in 1873 for \$1,000 and opened for Town business in 1874.

### **History of Preservation Activity**

#### ***Zoning***

The Town of Rye enacted its first zoning ordinance in 1953. It has been amended a number of times, as recently as March of 2013. The stated purpose of the ordinance is to promote "the health, safety and general welfare of the community." Preservation of the historic and cultural resources of the community is not specifically set forth in the purpose statement. The section describing the Historic District does state the goal of maintaining visual harmony of the buildings and structures in that specific district.

#### ***Farms and Agricultural Buildings***

Agricultural buildings are significant to Rye's history. The preservation of the barns in Rye is critical to preserving the Town's semi-rural character. State of New Hampshire RSA 79-D was passed in 2002 to provide Discretionary Preservation Easements. The Selectmen should publicize and grant these easements which provide property tax incentive as a mechanism to save historic agricultural buildings. Rye tax payers support preservation efforts as demonstrated by passage of the March, 2013 warrant article which will fund the renovation of the barn at Goss Farm.

### ***Rye Historical Society***

The Historical Society is a tax exempt organization whose membership is open to all. Founded in 1976, as an off-shoot of the Rye Bicentennial Celebration, the Historical Society owns and operates the Rye Town Museum. The mission of the Rye Historical Society is to preserve the Town's past and appreciate its heritage by collecting and displaying hundreds of artifacts, documents, photos and oral histories at the Rye Town Museum. The museum houses significant primary source material including tavern ledgers, diaries, town government records, news clippings and other 19<sup>th</sup> and early 20<sup>th</sup> century items.

The Society has documented and restored old graveyards. Through on-going and special exhibits, regular public programs and museum hours, the society aims to engage people in the vital aspects of Rye's history so that current issues may be better understood and future plans respect the natural and human history of the Town. RHS is in the early stages of writing a new history of Rye which will utilize all of these resources.

The society has also created a road-by-road historic and cultural inventory of the Town which includes the location of many former buildings and much of the Town's human and natural history. It has also photographed most of the approximately 350 buildings and barns built prior to 1950 and is in the process of identifying specific addresses and histories of these structures. This initiative will contribute to the necessary project of a Historical Resources Inventory. This inventory will be overseen by the Rye Heritage Commission and will enhance preservation efforts.

### ***Rye Historic District Commission***

The Rye Historic District Commission was created by a vote of the people in 1966. The Commission is a land use board with members appointed by the Board of Selectmen. The HDC is committed to promoting preservation and maintenance of properties within the Historic District of Rye Center from the Veterans' monument to Grange Park and within 500 feet on either side of the centerline of Washington Road. Any visual modifications, improvements or other changes within the District must come before the Commission. Other properties included under HDC oversight are the 1874 Cable House at 20 Old Beach Road, the 1691 Brackett Massacre Site at 605 Brackett Road, and those islands of the Isles of Shoals annexed to Rye in 1876 (Lunging, Star, White and Seavey). See the Historic District's website for HDC goals at: [http://www.town.rye.nh.us/Pages/RyeNH\\_BComm/Historic/index](http://www.town.rye.nh.us/Pages/RyeNH_BComm/Historic/index).

### ***Rye Heritage Commission***

Establishment of the Rye Heritage Commission was in large measure the result of a need to provide an appropriate means for transfer of the historic World War II Pulpit Rock Tower from the New Hampshire Fish and Game Department to the Town of Rye, if and when conditions of transfer are met. A selectmen's article on the March 2011 ballot to establish a Heritage Commission was approved by voters. The Commission consists of five members appointed by the Board of Selectmen, one of whom shall be a Selectperson, plus five alternates.

The RHC promotes the proper recognition, use and protection of resources, tangible or intangible, primarily man-made, that are valued for their historic, cultural, aesthetic, or community significance within their natural, built or cultural contexts. The RHC has the authority to survey and inventory cultural resources conduct research and publish findings, assist the Planning Board, as requested, to review cultural or historic resource related sections of the Master Plan and advise, upon request, local agencies and boards on matters affecting or potentially affecting cultural and historic resources.

The RHC can also publish its activities, hire consultants and contractors, receive gifts of money and property, hold meetings and hearings as necessary and consult and collaborate with the Historic District Commission. A number of concerns brought forward during the 2005 Visioning Sessions fall under the purview of the newly established Heritage Commission. Unlike the HDC which has a finite area of responsibility, Heritage Commission powers apply to the Town as a whole.

Since holding its first meeting in November of 2011, the Heritage Commission has developed a program with goals to undertake: the updating of the Town's Historic Resource Inventory; the Old House Project; the Graveyard Project; preservation/restoration discussion of Town Hall; and continued interest in Pulpit Rock Tower. Collaboration with the Rye Historical Society and the State of New Hampshire Division of Historical Resources, as well as the use of its archives will provide important background and documentation.

#### ***Demolition Review Committee***

Section 509 of the Zoning Ordinance of Rye, NH provides for a review prior to demolition of any building fifty years or older and five hundred feet or larger. The review focuses on criteria to determine if a building is "significant" as follows:

- A. The building is of such interest or quality that it would meet national, state or local criteria for designation as an historic, cultural or architectural landmark.
- B. The building is of such unusual or uncommon design, texture or materials that it could not be reproduced or could be reproduced only with great difficulty and expense.
- C. The building is of such historic, architectural or community value that its removal would be to the detriment of the public interest.
- D. Retention of the building would help preserve and protect an historic place or area of historic interest. The implementation of this review guarantees that if a significant structure is allowed to be demolished the committee will be able to photograph and even save features for posterity.

#### ***State Register of Historic Places***

At present, three properties are listed on the NH State Register of Historic Places (site, date of listing, ownership): 10 Central Road Rye Town Hall RYE0016 04/29/2013; 251 Harbor Road Goss Farm Barn RYE0017 04/25/11 and 505 Ocean Boulevard Odiorne Farm RYE0005 7/30/2007. A number of other properties and districts in Rye would likely be eligible for the

State Register if application were to be made: Seavey Creek and Odiorne Park District, and Abenaki Country Club, for example.

### ***National Register of Historic Places***

The National Register properties in Rye are the Isles of Shoals, the Elijah Locke House, the Parsons Homestead, Pulpit Rock Base End Station, and St. Andrews by-the-Sea. The Elijah Locke House, 5 Grove Road, was the first Rye property to be listed on December 19, 1979. The Parsons Homestead, 520 Washington Road, came next on December 5, 1980. The Isles of Shoals was entered as a district on the Register on December 10, 1980. St. Andrews-by-the-Sea Church, an architectural jewel in Rye Beach, was listed on December 13, 2001. Recently, the Pulpit Rock Base-End Station of World War II, 9 Davis Road, received the recognition on April 16, 2010.

### ***Land Conservation***

The Rye Conservation Commission is committed to the protection and proper utilization of Rye's natural resources. In keeping with its mission one of its primary goals is to conserve open space and protect the wetlands. The Town of Rye voted five million dollars to the Open Space Fund in 2003. Over the past ten years those funds were used to acquire land and easements on 625 acres and protected over 1,219 acres in Rye. The Commission has assumed responsibility for developing a community garden at the Goss Farm and planning the reconstruction of the Goss Barn which is on the New Hampshire State Register of Historic Places.

### ***Preservation Issues and Challenges***

The Rye Town Hall is an historic resource. It is also the building within which the Town conducts the business of the citizens of Rye. Built as a Methodist Episcopal church in 1838, it was purchased by the Town and dedicated as the Rye Town Hall in 1873. It served as the Town Meeting location through nearly three quarters of the 20th century; but gradually as population increased, Town affairs became more complicated and technology brought rapid changes, the meeting space was increasingly taken over by offices. Selectmen throughout this period were mindful of the historic significance of the building; thus, the Great Hall with its proscenium arch, tin ceiling, wainscoting and the twin winding staircases, although nearly hidden, all remain intact. Because of these significant features, Rye's Town Hall has been placed on the State Register of Historic Places. This designation does not restrict addressing the needs of that building for safety and maintenance upgrades. The Town Hall should be in the center of Rye.

The Rye Memorial Library is an historic building, dating from 1911, as well as a resource of historical information. Books about Rye and its history, documentation of individual families and Annual Reports of the Town of Rye are part of the Library's historical resource collection. The State of New Hampshire Division of Historical Resources records also contain a significant collection of materials on the history of Rye and its buildings and sites.

## 8.6 NEXT STEPS

While some proposals derived from the 2005 Master Plan Visioning Sessions have come to fruition, such as the establishment of a Heritage Commission, and progress has been made on others, some suggestions of merit remain on the to do list. Among them:

- Creating a map of key sites in Town and interpretive signs for each location;
- Offering an historic homes walk-through;
- Publicizing that the Isles of Shoals National Historic District is a Rye historic asset; and
- Encouraging land use boards to consult with the Heritage Commission on historic, cultural and aesthetic matters.

The establishment of a Heritage Commission and dialogue concerning the future of the Town Hall has inspired renewed interest in historical resources. The Heritage Commission has set out new goals for its Commissioners and also for the community. These may be viewed on the Town website at: [http://www.town.rye.nh.us/Pages/RyeNH\\_BComm/Historic/index](http://www.town.rye.nh.us/Pages/RyeNH_BComm/Historic/index).

## CHAPTER 9 – MUNICIPAL SERVICES

### 9.1 VISION

We recognize that as a community, we have many components working together that make up our municipal services to the residents of Rye and the surrounding areas. They comprise of the Police Department, Fire Department; Department of Public Works; Water District; Rye Sewer Commission; Recreation and Schools.

### 9.2 POLICE PROTECTION – PLANNING FOR THE FUTURE POLICE DEPARTMENT

The challenges facing society today are enormous: financial uncertainty, personal and property security, environmental sustainability, quality of life issues. Planning allows an organization to concentrate its attention and resources on the most important issues.

The Rye Police Department is dedicated to promoting and ensuring the safety, education and welfare of all people throughout the Town of Rye. We hope to accomplish this through a variety of partnerships with the community and other service providers in the State of New Hampshire.

The plan items are:

- High visibility traffic enforcement needs to remain a top priority. Responding to the population increase of the entire Seacoast area and the increases in the number of tourists brings more traffic to the secondary roads of Rye.
- Preparation for large scale emergencies, whether natural or manmade, is a priority. This preparedness will include planning, training/recruitment of personnel, and the procurement of the equipment/technologies necessary to achieve a satisfactory level of preparedness.
- Coordination between the lifeguards and the police department has been enhanced through the Fire Department. Although the “life-saving” mission does not align perfectly with the police mission, the maintenance of order on the beach dictates the inclusion in the police department. Each lifeguard station will have to be equipped with appropriate radio communication equipment.
- Optimizing deployment of all personnel to minimize overtime expense and with no compromise in service level to our town.
- To keep pace with emerging practices and technologies we will use technology to improve work efficiency and effectiveness, such as: increase officer technological independence, increase the time spent by the officer on the road, and improve quality of reports, track problem solving efforts and increase access to information. Technology is simply one more tool, which if properly used, can save police officers time and effort.

The Rye Police Department provides the Town with around the clock coverage seven days a week with a Police Chief and eight full-time officers and five part-time officers.

These uniformed personnel are supported by a full-time clerk, on-call animal control officer and an attorney serves as the department's part-time prosecutor. The department's personnel resources are augmented by mutual aid agreements with neighboring departments. The Town contracts with the regional Emergency Response Team for tactical situations. Parking enforcement duties are handled by civilians working part time during the summer months.

There are two primary personnel management challenges. The first is to provide adequate around-the-clock coverage with the personnel we have without incurring high overtime costs. Currently this is accomplished by using part time officers as the second "day care" on weekends and as replacements when available. Since only one Rye officer is on patrol during the late night shift we are totally dependent on assistance from surrounding communities when assistance is needed. The second challenge is to meet the demands created during the summer tourist season and when the day to day population increases drastically. This daily influx of transients creates a significant demand on resources which remain generally the same from season to season.

The Police Department is headquartered in the Rye Public Safety Building. The Police Department is equipped with five cruisers. These vehicles are "recycled" to other departments when their five-year life as a cruiser is completed, giving the Town an actual vehicle life of eight years and 150,000 miles on average. Routine maintenance and other non-warranty services are performed by the Town mechanic at the Department of Public Works. (More details on service maintenance are mentioned in the DPW section of this chapter). Other equipment includes: office equipment; mobile data terminals, enforcement equipment; and communications equipment.

Rye makes use of the statewide E-911 facility for police, ambulance, and fire emergency reporting. The Police Department is dispatched by the Rockingham County Dispatch Center in Brentwood N.H. The police radio net-work provides effective coordination of resources and a safety link for police officers working in the field.

Lowering crime rates and creating a safe environment is a top priority for the Rye Police Department. We combine suppression of crime through focused enforcement efforts with community education aimed to build cohesive neighborhoods that are more resistant to crime and disorder. Studies have shown that in suburban environments the vast majority of burglaries are perpetuated using an automobile both to "case" the potential targets and to assure quick exit from the burglary scene, while drug dealers tend to drive to and park near where they do business. Criminals strive to avoid any contact with police who may observe contraband in their vehicle or run their names through a computerized identification system. Thus, a highly visible police force makes us an unattractive target for criminals in spite of our very attractive demographics.

As in many other communities, alcohol and drugs have become the most common causes of arrests. In Rye, this probably represents a high level of interdiction from the transient population more than any extraordinary level of use within our community. The summer beach patrols (uniformed and plainclothes) have proven especially effective in controlling both drugs and alcohol along the beaches, where they are most commonly abused. Drug and alcohol arrests are followed in frequency by arrests for traffic infractions and trailed by all others.

Growth related factors affecting our police force are summer population increases, seasonal tourist influx, commercial development, coastal development policies, age composition of our citizens, income composition of the population and spatial distribution of the population. Most people understand the high correlation between size of population and size of police force. Generally the recommended ratio of police officers is approximately 2.0 per thousand populations. For smaller towns, forecasting future needs based on such formulas is not a realistic approach to determining need because both the size of the population and the force are small. Other factors have a greater impact on both actual and perceived service levels than in municipalities with larger populations. With respect to force size, the master planning perspective must consider the types of service being requested as well as population growth. In the last six years there were two shootings and five night time residential burglaries reported when one police officer was on duty. To ensure a quicker and efficient response to these types of investigations the police force should increase to two officers 24 hours a day.

The workload of our current police force can be seen in Figure 9-1.

**Figure 9-1**

<b>Police Force Workload</b>							
<b>Police Activity</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Calls for Service	8,825	8,665	8,777	8,562	8,792	8,342	8,531
Vehicle Stops	1,989	1,931	2,037	1,648	1,692	1,429	1,327
Arrests	273	220	238	193	141	119	181
M.V. Accidents*	150	127	134	139	118	142	97
Alarm Responses	292	346	359	347	402	400	316
Suspicious Activity	408	400	537	549	461	448	478
Animal Control	455	392	459	396	422	465	489
911 Hang Ups	151	110	65	68	66	71	60
Medical Aid	294	337	305	362	294	325	265
Domestic Disputes	48	43	53	44	40	28	23
Residential Burglaries	10	11	9	12	7	8	3
Juvenile Offenses	31	31	44	19	25	19	13

**(This table does not include all activities and all categories but is meant to be representative sample of police activities.)**

**\*This category represents only those accidents which require a police investigation/report.**

Rye’s land use policies could also affect the level of required police service. As noted in the Land Use Assessment, lot frontage on existing roads is nearly all “built out” today. Most of Rye’s additional homes will be built in small residential subdivisions which increases the number of homes and road miles patrolled. More importantly, any change in the coastal land use policies away from the “family-oriented” concept or commercial/retail development would dramatically affect police service requirements.

### **9.3 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES – PLANNING FOR THE FUTURE FIRE & RESCUE DEPARTMENT**

#### **A. Vision**

Our Rye Fire & Rescue delivers and will continue to deliver optimal public safety services and public education through maximum utilization of all available resources. Planning for the Fire and Emergency Medical Service future is a process that is ever-evolving and is constantly reviewed and amended as necessary given the needs of this community. The plans will lay out the course for the department including recruiting and training a highly skilled, motivated and diverse workforce. Items to be considered are:

- Monitoring town and area growth;
- Updating the vehicle replacement program;
- Requesting an Insurance Services Offices, Inc., (ISO) reevaluation;
- Refining the staffing plan; and
- Increasing Advanced Life Support (ALS) capabilities.

#### **B. Historical Perspective**

The Rye Fire Department was organized in 1947 and incorporated the Rye Beach FD to provide fire suppression services to both Rye and Rye Beach. Over the past fifty-eight years, our department has grown to an organization of nine full-time personnel and as many as twenty paid-on-call personnel. It provides us with a full range of services 24/7 with a minimum of two career firefighter/emergency medical technicians on duty at all times. With over fifty years of service, the department is steeped in a rich tradition of the fire service and dedication to the community.

In 1992, the fire department took on the operation of the community's emergency medical services from the Rye Ambulance Corps and became Rye Fire & Rescue. This was a logical extension of the fire fighters' basic mission, which is to save lives. From this beginning, our delivery of emergency medical services expanded to the advanced life support level in 1994 with the introduction of paramedic service.

#### **C. Buildings and Equipment**

Rye's Fire & Rescue service is housed and operates out of one location, a public safety facility opened in 2006 at 555 Washington Road in Rye center. In addition to the administrative offices, this facility houses two pumping engines, one "quint" pumper/aerial ladder, one brush fire truck and an ambulance.(see detailed equipment list in Figure 9-2) This equipment supports the fire suppression mission and the extension of our department's mission to both emergency and non-emergency services. Emergency services include: emergency medical service, vehicle extrication, water rescue, technical

rescue, hazardous materials response, and air quality identification and monitoring. The non-emergency services include: fire prevention and code enforcement, public fire and safety education, fire investigation, residential lock-out, water extrication, and any other related needs of the community as described in Figure 9-3

The department also houses and operates assets of the Seacoast Chief Fire Officers Mutual Aid District and responds to regional mutual aid requests as needed.

**Figure 9-2**

<b>Rye Fire &amp; Rescue Vehicles</b>						
					<b>REMAINING LIFE EXPENCTANCY</b>	
<b>TYPE**</b>	<b>MODEL</b>	<b>CALL SIGN</b>	<b>YEAR</b>	<b>ORIGINAL PRICE</b>	<b>FRONT -LINE</b>	<b>RESERVE (Back Up)</b>
Engine	E-One	Engine 3	2003	\$274,000	5	5
Engine	KME	Engine 1	1993	\$126,000	5	5
Quint	LTI	Ladder 1	1988	\$243,000	1	0
Ambulance	Chev/Life Line	Ambulance 1	2008	\$93,000	5	5
Forestry/Utility	Chevrolet	Utility 1	2006	\$15,200	4	0
Command Vehicle	Ford Crown Vic	Car 1	2008	\$0	2	0
<b>** - Average "Life" Per Type of Apparatus:</b> Engine                    20 Years Quint                      25 Years Ambulance                10 Years Forestry/Utility        12 Years Command Vehicle        2 Years (Used police cruisers)						

Source: Rye Fire Chief William H. Sullivan

**Figure 9-3**

<b>Fire Department Services to the Community</b>	
<p><b>Public Education</b></p> <ul style="list-style-type: none"> <li>• CPR/AED Classes</li> <li>• School Programs</li> <li>• Station Tours &amp; Children Education</li> <li>• Annual Fire Prevention Open House</li> <li>• Speakers for Civic Organizations</li> <li>• Child Safety Seat Inspections</li> </ul>	<p><b>Fire Protection</b></p> <ul style="list-style-type: none"> <li>• Plans Review</li> <li>• Occupancy Permit Inspections</li> <li>• Heating System Inspections</li> <li>• Flammable Materials Storage Inspections</li> <li>• Place of Assembly Inspections</li> <li>• Fire Alarm Inspections</li> <li>• Annual Safety Inspections</li> <li>• Assembly Permit Inspections</li> <li>• Large Event Fire Watch Programs</li> <li>• Emergency Pre-plan Activity</li> </ul>
<p><b>Fire Suppression</b></p> <ul style="list-style-type: none"> <li>• Building Fires</li> <li>• Wildland/Brush Fires</li> <li>• Vehicle Fires</li> <li>• Alarm Activations</li> </ul>	<p><b>Hazardous Materials Response</b></p> <ul style="list-style-type: none"> <li>• Level C Entry</li> <li>• Level B Entry</li> <li>• Carbon Monoxide Alarm Investigations</li> <li>• Hazard Investigations</li> </ul>
<p><b>Rescue Services</b></p> <ul style="list-style-type: none"> <li>• Vehicle Extrication</li> <li>• Industrial Accidents</li> <li>• Water Related Incidents</li> <li>• Lifeguard Supervision</li> </ul>	<p><b>Emergency Medical Response</b></p> <ul style="list-style-type: none"> <li>• Basic Life Support</li> <li>• (ALS) Life Support</li> <li>• Event Stand-By Services</li> </ul>
<p><b>Disaster Management/Preparedness</b></p> <ul style="list-style-type: none"> <li>• Blizzards/Ice Storms</li> <li>• Floods</li> <li>• Hurricanes</li> <li>• Severe Storms/Tornadoes</li> </ul>	<p><b>Emergency Communications</b></p> <ul style="list-style-type: none"> <li>• E-911 Answering Point (Concord)</li> <li>• ANI/ALI EMD Capabilities</li> <li>• Alarm Monitoring</li> <li>• Dispatch Capabilities (Rockingham County)</li> </ul>
<p><b>Property Management Mitigation</b></p> <ul style="list-style-type: none"> <li>• Cellar Water Problems</li> <li>• Occupant Lock-outs</li> <li>• Unsafe Conditions</li> </ul>	<p><b>Fire Cause and Origin Determination</b></p> <ul style="list-style-type: none"> <li>• Coordination With Fire Marshall's Office</li> <li>• Coordination With Rye Police</li> </ul>
<p><b>Miscellaneous Services</b></p> <ul style="list-style-type: none"> <li>• Hanging Patriotic/Holiday Decorations</li> <li>• Crowd Management at Large Gatherings</li> <li>• Ambulance Hardship Program</li> <li>• State EMS Committees</li> <li>• Regional EMS Task Force Involvement</li> <li>• State/Seacoast Fire Chief's Association Involvement</li> <li>• Regional Hazardous Material District</li> <li>• Highway Safety Committee</li> </ul>	<p><b>Off-Duty Citizens Assistance</b></p> <ul style="list-style-type: none"> <li>• Rye Firefighter Association Support</li> <li>• Smoke Detector Program</li> </ul>

**D. Fire Suppression--Personnel**

The department’s work schedule consists of four duty shift with one shift being on duty at all times for a twenty four hour period. Each shift is made up of a Fire Lieutenant/EMT and a minimum of one Firefighter/EMT. This around the clock staffing level allows for the immediate response of the ambulance to a request for medical aid or in the case of a fire incident, the response of a fire engine. Like most small departments, Rye Fire & Rescue relies heavily on the back-up response of our off duty and call force personnel along with a mutual aid response from neighboring towns for major fire incidents or simultaneous ambulance calls.

The distribution of services provided is shown on Figure 9-4. The following breakdown by National Data Classification shows the number of calls to which our fire teams responded between 2003 through 2006:

**Figure 9-4**

<b>Fire Department Emergency Activity</b>				
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Medical Emergencies</b>	478	425	470	426
<b>Structure Fires</b>	2	2	2	3
<b>Chimney Fires</b>	7	4	5	5
<b>Outside Fires</b>	9	9	10	5
<b>Vehicle Fires</b>	1	3	0	2
<b>Motor Vehicle Crashes</b>	38	46	30	42
<b>Alarm Activations</b>	75	73	68	78
<b>Hazardous Condition Calls</b>	45	50	41	42
<b>Search &amp; Rescue Calls</b>	4	3	4	3
<b>Odor / Smoke Investigations</b>	9	15	8	8
<b>Water Problems</b>	2	3	5	4
<b>Public Assists</b>	48	53	51	45
<b>Wires Down</b>	10	32	14	11
<b>Mutual Aid Given</b>	41	65	61	60
<b>Total</b>	<b>768</b>	<b>783</b>	<b>760</b>	<b>703</b>
<b>Fire Department Non-Emergency Activity – 2012</b>				
<b>Commercial / Residential Inspections Performed</b>				<b>167</b>
<b>Permits Issued: Occupancy, Oil, Assembly</b>				<b>162</b>
<b>Burning Permits Issued</b>				<b>927</b>
<b>Child Passenger safety seat Checks / Installations</b>				<b>22</b>

**E. Organizational Structure and Response Times**

Our organization reflects the efficient assignment of responsibility and authority. We achieve effectiveness by optimizing the distribution of workload. The lines clearly communicate accountability, coordination and supervision. Detailed job descriptions for each position ensure that each individual's specific role is clear and centered on our overall mission.

The department currently maintains collective bargaining agreements (CBA) with employees that specify the salary, benefits and working conditions under which the employees will operate.

The National Fire Protection Association (NFPA) Standards use the guideline of seven minutes to reach a fire. This time is based upon data that indicate that a structure and its contents will typically be fully in flames in this time. This time includes detection and reporting the fire, dispatch of fire equipment, travel time to the fire scene and set up time at the scene. In order to achieve the seven minute standard, travel time should be 3-4 minutes. This is possible only if a fire station is located within one and one-half to two miles from the fire site. At present approximately 60-70% of all structures in the Town are within this distance from of the fire station. Given the Town's geography, response times to the north and south ends of the Town can exceed this standard.

**F. Insurance Services Office Rating**

Another measure to evaluate a Town's ability to suppress fires in larger residences and commercial structures is through standards set by the Insurance Services Office, Inc. (ISO) for fire insurance rates. ISO grades fire departments looking at several factors: fire station location, and water supply. The most recent grading by ISO was in 2007 and the town's public protection classification remained at class 5 for those properties within 5 road miles of the fire station and within 1,000 feet of a fire hydrant; and class 9 for those properties outside of hydrant protection.

**G. Mutual Aid**

The department is an active member of the Seacoast Chief Fire Officers Mutual Aid District, a New Hampshire municipal corporation whose membership consists of Forty communities in New Hampshire, Maine and Massachusetts as well as the fire departments of Pease ANG Base and the Portsmouth Naval Shipyard. The member departments train and work together and in time of a major fire incident, town boundaries are erased and command and control personnel work together seamlessly. The mutual aid district also provides a hazardous materials team that is on call at all times and can be mobilized to contain and mitigate any sort of spill or leak of a hazardous substance.

## **H. Emergency Medical Services (EMS)**

The Fire & Rescue Department supplies both basic life support and advanced life support services, depending on the certification level of the on-duty personnel. There are six paramedics (3 full-time and 4 on-call) who are cross-trained in fire, rescue and hazardous materials handling. In addition to the ambulance, the primary fire engine is also equipped with advanced life support equipment. Providing emergency medical assistance represents the highest call volume for the department, according for 426 calls or 60% of all responses in 2012.

At present our equipment is adequate, but the department will attempt in 2014, to acquire a second ambulance. This would reduce the workload on the present ambulance thereby extending its service life and reduce the number of times that a mutual aid ambulance would be required thus keeping more revenue within the town.

The department's plan is to encourage current personnel to become Paramedic level trained and as senior personnel retire from the department, Paramedic level firefighters will be hired to take their place in order to increase the emergency medical services capabilities. Our target is to provide advanced life support to every call for emergency medical care.

All of the revenue generated by the emergency medical services is returned to the town's general fund and in 2012 the emergency medical services generated a total of \$183,160.00 for the Town of Rye.

## **I. Fire and Rescue Training**

The department must train its staff in routine and advanced operational procedures for fire, rescue and emergency services. Our whole team must keep up with the new and changing laws and regulations training. They take advantage of off-site locations such as the NH Fire Academy in Concord. The time commitment for our personnel to attend necessary courses has increased since September 11, 2001.

By 2015, the present EMT-Intermediates must complete a course of study and successfully pass an examination for a new level of care known as "Advanced EMT" as the intermediate level is done away with by the National Registry of EMT's.

## **J. Fire Prevention and Public Safety Education**

The department has an active program of fire prevention and education. We work closely with businesses to address potential fire and life safety issues and problems. We support the Town's Planning and Zoning department with reviews of all new buildings to ensure compliance with the town's codes. Finally, the department has a rigorous policy to investigate all fires and identify issues that can be used in future public education programs.

The department has a proactive fire prevention program that reaches a wide range of residents from school groups to businesses to senior citizens. Programs have been developed for a variety of media including: speaking engagements, hand outs, open houses, and outreach to the schools that have been undertaken to educate the public. The department works with the school department and area day care centers to implement fire safety programs.

We are currently developing a comprehensive fire and life safety ordinance which will guide property owners and contractors to conform to the latest standards in recognized Life Safety Code and Fire Prevention practices. This is a tool which will additionally be used by the Building Inspector and the Planning Board in accepting new construction and renovations.

#### **9.4 DEPARTMENT OF PUBLIC WORKS – PLANNING FOR THE FUTURE DPW**

The Department of Public Works (DPW) provides road maintenance, solid waste management, stormwater management, beach management, and vehicle management. The priority items in DPW planning are:

- Ensure that the replacement of the existing roads is performed in the most efficient and cost effective manner, based upon a priority sequence established by continuous visual inspections and traffic counts.
- Balance funding to assure that both maintenance and improvement are timely while addressing the needs caused by our ever higher density of development.
- Develop programs to maintain skills and develop new productivity skills in staff.
- Specify systematic replacement and upgrading of DPW equipment in the Capital Improvement Program.
- Improve the human factors in the recycling center to serve the users better while controlling the labor costs to the town.
- Monitor all work assignments to assure compliance with the spirit of the Collective Bargaining Agreement (CBA).
- Address construction and improvement projects through a well thought out and prioritized list.
- Advise the Land Use Boards on factors which may adversely affect the existing town infrastructure.

##### **A. Buildings and Equipment**

The activities of the DPW are headquartered at 309 Grove Road at the intersection with Washington Road. The 7.4 acre site contains the DPW maintenance garage, the recycling center, salt shed, fuel station, auxiliary storage buildings, and the brush dump.

The Town anticipates the construction of a new salt shed on the site. However, prior to these improvements a Master Plan is anticipated to address site traffic and safety deficiencies.

There is a variety of equipment necessary to perform the various tasks associated with maintaining the roads and servicing the recycling center. The complete list of DPW equipment is given in Figure 9-5.

**Figure 9-5**

<b>Public Works Equipment</b>		
<b>Description</b>	<b>Year New</b>	<b>Replacement Year</b>
Chevrolet 2500 ¾ T	2003	2012
Chevrolet 2500 ¾ T	1989	2005
Chevrolet 2500 1 T	2003	2011
Chevrolet 2500 1 T	1999	2010
International 4900 2 T	1998	2013
International 4900 2 T	1996	2008
International 7400 2 T	2003	2015
Freightliner M2106	2005	2019
Caterpillar Dozer/Loader	1986	2016
John Deere Backhoe	2001	2011
Case Skid Steer	2003	2018
Caterpillar Loader	1996	2016
John Deere Mower	1980	

All the public works equipment is stored in the highway garage located on Grove Road. The highway garage was built in 1981. It is currently barely adequate to house all of the public works equipment. Current land space will facilitate only minimal future expansion. There is also a need for additional interior space for offices and storage of files.

The Town has established a CIP committee and plan which has identified all the Town owned equipment with corresponding replacement years and costs.

The DPW employs a full time mechanic for inspecting, maintaining and servicing the Town’s equipment. Additionally, DPW provides service to police vehicles and the fire utility vehicle so cross department efficiency is achieved. The current system allows for equipment to be cared for by longer-term employees who are familiar with the equipment.

**B. Personnel**

The work of the DPW is performed by eight full-time employees, two permanent part-time employees and a Public Works Director. The Director also fulfills many of the duties of Town Engineer for the Board of Selectmen and the Planning Board. Four of the full time staff are assigned to the Highway Department, two of the full time staff and two of the part timers are assigned to the recycling station. One full timer is the Highway Foreman supervising the Highway Staff and the remaining full timer is the mechanic, operating out of the highway garage.

The key tasks of the DPW staff and management are: the maintenance and improvement of the streets and storm drains, the prompt clearing of snow and ice from the roadways, providing assistance to all other Town departments where and as needed and operation of the recycling center.

Duties associated with road maintenance are patching of roads, road re-surfacing, snow plowing, street sweeping, street sign maintenance, mowing, brush and tree trimming, removal of roadside litter, and many others. Major resurfacing projects are contracted out but managed by the DPW Director.

Almost all the Public Works Department workload is directly related to the amount of development area in Rye. Land use decisions have a direct impact on this department. Additionally, as noted in the Transportation Assessment, increased conversion of seasonal houses will lead to increased demands for upgrading some of the substandard coastal streets.

The DPW, advises the Planning Board, making sure that new streets are laid out maximizing efficiency and usefulness to the Town. The proper layout also minimizes plowing and maintenance costs. The review process and follow-up inspections prior to Town acceptance of new streets are critical as the cost of new road construction, paid for by the developers, can be dwarfed by the Town's costs if they are built incorrectly.

To ensure that the Town optimizes road maintenance funds, a road inventory is kept. This also requires which roads are Town-owned and which are privately owned as well as the classification of each Town road. The current road inventory and management system is in need of updating.

The highway aspects of the DPW's role are further discussed in the Transportation Chapter.

### **C. Solid Waste Management**

The Town handles all solid waste out of the Transfer Station located on Grove Road adjacent to Washington Road. There is no Town provided curbside collection of any rubbish. Mandatory recycling of the most common categories of recyclables is required at the Transfer Station in order to minimize the amount of trash transported to the landfill.

The Selectmen approved the creation of a Rye Recycling Education Committee (RREC) in 2013. Its purpose is to educate Town residents on recycling and maximizing the effectiveness of the Town's source separated recycling drop-off facility at the Transfer Station. Source separated recycling drop-off just describes the way the Town presently recycles. This committee will operate as a subcommittee of the Rye Energy Committee.

Tonnage associated with the Transfer Center is provided in the following tabulation.

**Figure 9-6**

<b>Transfer Center Statistics</b>					
<b>Year</b>	<b>Pop.</b>	<b>MSW</b>	<b>Recycle</b>	<b>Rate</b>	<b>Revenue</b>
2000	5182	950	975	51%	\$105,000
2001		1090	1100	50%	\$110,000
2002		1050	910	46%	\$105,000
2003		1250	900	42%	\$110,000
2004		1350	990	42%	\$125,000
2005		1359	617	31%	Unknown
2006		1413	697	33%	Unknown
2007	5490	1467	1036	41%	Unknown
2008		1700	1117	40%	Unknown
2009		1476	903	38%	\$40,000
2010		1206	550	31%	\$70,000
2011	5300	1235	686	36%	\$80,000
2012		1213	604	33%	\$83,000

The Town is one of ten members of the Southeast Regional refuse Disposal District 53B. This organization is a consortium of ten local communities which pool their anticipated rubbish and then contract for disposal of the rubbish at a common disposal site. Currently the Town is in the twelfth year of a fifteen year contract with Waste Management Inc., for disposal of the districts rubbish at the Turnkey Landfill in Rochester, NH. The contract is scheduled to expire in 2015.

A brush dump is also operated at the Transfer Station for receipt of Town generated yard waste. Said waste has been land applied at the facility; however, land application has currently been suspended to allow time for removal of accumulated compost associated with the breakdown of the land applied yard waste.

**D. Drainage**

There was no concept of a drainage plan when Rye was settled. As the Town grew no plan was ever put into place. Stormwater drains have been constructed in Rye over the years to correct for drainage problems inherent in the topography as well as those caused by development. As the amount of land, capable of absorbing stormwater is reduced, by building and surfacing for vehicles, the need for storm drainage facilities increases. One property owner’s good drainage system can result in problems for his neighbors. For this reason, all proposed subdivision and site plans are carefully studied by the Planning Board to avoid storm drainage problems to downstream properties.

Rye is currently in the process of contracting for an engineering firm to provide a stormwater infrastructure analysis in order to develop a “Master Drainage Plan” encompassing the entire Town. Problem areas will be identified and listed by priority, and the department will complete improvements as funding permits. As development expands and intensifies, the stormwater drainage system will need to be improved. In

addition, there has been a move away from the old storm water runoff retention pond and towards low intensity development which endeavors to slow storm water runoff and return more of the runoff directly into the ground.



## **9.5 RYE WATER DISTRICT**

### **A. System Background and Water Sources**

The Rye Water District (RWD) was established in 1947 as a Village District (Regional Water District) under the provisions of State of New Hampshire rules for establishment of such Districts. Initially the RWD serviced only the northern portion of Rye. Since the time of inception the distribution system has been expanded to cover in excess of  $\frac{3}{4}$  of the Town of Rye, providing service to over 1,550 customers. The RWD obtains its water from three wells, all located in Rye. Two well are deep drilled bedrock wells, Bailey Brook Well and Cedar Run Well, capable of providing approximately 325 and 340 gallons per minutes (GPM) respectively. The third well is a gravel-packed well, Garland Well, capable of providing approximately 400 GPM. The water that is ultimately delivered to the customers is a mix, or blend, of water from these three wells. For a small number of customers on Wentworth Road, to include the Wentworth by the Sea Golf Course, water is purchased from the City of Portsmouth and is used to service those customers. The District distribution system consists of approximately 33 miles of mains (water pipes), 500 control/distribution valves, 260 hydrants, one booster station, and three storage tanks. Two tanks are located on Washington Road along with the booster station and the third just south of Breakfast Hill on Route 1.

### **B. Water Quality**

The RWD supplies water that meets all State and Federal drinking water quality standards to its customers. Water quality is sampled monthly and the results are provided to the New Hampshire Department of Environmental Services (NH DES), Water quality data is also report to all District customers in the annual Consumer Confidence report.

The RWD has established a comprehensive program to certify, twice yearly, that back-flow devices installed in all commercial locations are operating properly. RWD personnel have been trained and qualified to perform this certification. Additionally, the RWD requires back-flow prevention devices be installed in all residential locations. Back-flow devices prevent potential contamination of the distribution system in the case of a loss of positive pressure in the system.

The RWD conducts a Wellhead Protection Program, consistent with NH DES guidelines, which manages the areas within a 4,000 foot radius of each well. Commercial customers within the 4,000 foot radius are inspected every three years and the RWD advises of the best management practices for handling, control, and disposal of hazardous materials that could, if not properly managed, affect our water-sources. Additionally, the RWD restricts all activities within a 400 foot sanitary radius around each well. This restriction is accomplished by either the RWD owning the property within the 400 foot radius outright or by placing restrictive covenants in deeds of private property owners for those portions of their land lying within the 400 foot radius.

Residential customers, within the Wellhead Protection Area, are advised to dispose of household chemicals and hazardous material collection day. Flyers are distributed in advance of the collection date to all customers.

The aquifers that supply the three RWD wells are an irreplaceable asset to the Town of Rye. Protection of these aquifers can be enhanced via appropriate and consistent enforcement of Town ordinances. The RWD does not have the authority to implement or control the Town of Rye's ordinances. This authority is located within the jurisdiction of the Town's various Boards.

### **C. System Maintenance, Operations and Improvements**

The RWD Staff and Commissioner's review operational and yearly maintenance needs during development of the RWD's annual operating budget. As part of the budget development, funds are designated for capital improvement accounts for future year expenses. In the past, whenever possible, the RWD funded expansion or replacement projects from a current year operating budget in lieu of long term bonding. However, the number of smaller projects and growing replacement needs that can be completed within a single years operating budget has basically zeroed out.

In order to facilitate better budget planning for a current year needs and out year recurring or new requirements, the RWD has initiated activities to develop and implement an Asset Management Program. The basic objectives of this program are to provide a structured asset management approach for both near term and long term requirements of the RWD. It is expected the Asset Management Program will maximize efficiency of services provided to RWD customers and optimize use of available funding through a combination of new software, organized data management, living asset inventory, matrixes of near term and long term operation, maintenance and capital improvement requirements to include projected funding estimates. (Additional details of the Asset Management Program is provided in the "Next Steps" paragraph below)

The District has developed and maintains a comprehensive mapping of the distribution system using Geographic Information System (GIS) computer program. This GIS mapping data will become part of the Asset Management Program discussed above.

Based upon the result of an engineering study conducted in 2005, the RWD at its Annual Meeting in 2009 received approval to proceed with engineering and design of a Central Water Treatment Plan (CWPT). The goals of the are: provide treatment of high iron and manganese in the two bedrock wells, provide ability to operate with continuous chlorination if mandated, provide the ability to supply the distribution system from any combination of RWD's three wells, removal of all operational equipment from the Garland well site, provide flexibility to easily and quickly adjust to the new regulatory requirements such as Radon removal, provide permanent back-up power to at least one well and the CWTP, centralize operational and maintenance activities, and improve system security. Initial engineering activities were initiated in 2009. In 2010, the process to be used to reduce iron and manganese levels was determined and a five month pilot

study of the proposed process was conducted to validate the process selection. In 2011, the Pilot Study report was reviewed, preliminary design was completed and reviewed, and 60% design was completed and reviewed. Currently, the 90% design is being finalized.

#### **D. Next Steps**

Complete the final design of the CWTP. As part of the design completion process a final construction cost estimate will be prepared, permitting and NH DES approval process initiated, and meeting with appropriate Town of Rye boards. Finally, consistent with the concepts of the RWD's developing Asset Management Program, if the CWTP proves necessary. Plan the project funding mechanisms, construction start year, and prepare a Warrant Article to present to the RWD for CWTP construction approval at an Annual Meeting.

Continue with activities to establish an Asset Management Program. The following provides an overview of the Asset Management Program which will consist of three major components:

- Asset Management Plan
- Asset Inventory System
- Computerized Maintenance Management System (CMMS)

As a pre-requisite to the development of the Asset Management Plan a Water Distribution System Master Plan will be generated to evaluate the RWD's existing water distribution infrastructure and provide a plan for piping and associated components improvements or replacement. Elements of the distribution system master plan include: developing a hydraulic model based upon the existing GIS database, identify areas of the system having "aging water infrastructure" in need of possible replacement, identify areas where hydraulic deficiencies exist, perform hydraulic model scenarios, evaluate possible system improvements, review current and future demand projections, review water main interconnections with Portsmouth and Aquarion systems, develop a list of prioritized infrastructure improvements, and create a system distribution map showing needed infrastructure improvements. This information from the distribution system master plan will feed into the development of the Asset Management Plan. The Asset Management Plan will provide a multi-year implementation program for adopting asset management best practices and technologies to include: a structured asset inventory system, methods for critical analysis for evaluation system improvements, and enhancement of data for long-term financial planning.

The Asset Inventory System will provide an all encompassing matrix listing all RWD items, such as water mains, valves, wellhead components, pumps, structures, equipment, etc. The asset inventory is planned to be a secured web-based application, linked to the RWD's current GIS and have a query tool enabling quick accessing and review of asset inventory information.

The Computerized Maintenance Management System (CMMS) will be a software application that can track service requests and scheduled maintenance work orders for a current year and project (schedule) future year system maintenance and/or replacement requirements. This ability to better project future work requirements will aid in projecting future budgets demands and facilitating the leveling of future budget cycles.

## **9.6 OTHER WATER PROVIDERS**

Not all areas of Rye are served by the Rye Water District. The City of Portsmouth provides water to properties along Pioneer Road and to the north of Pioneer Road, including the Wentworth By The Sea Country Club development. Properties in the Rye Beach and Jenness Beach Precincts are served by Aquarion Water Company of New Hampshire, which is a subsidiary of Aquarion Water Company, the largest private water company in New England and among the ten largest private water companies in the United States. Aquarion Water Company of New Hampshire provides water to about 9,100 customers in Hampton, North Hampton and Rye and is regulated by the NH Public Utilities Commission.

## **9.7 SEWERAGE**

The Town of Rye has a public sewer system managed by a three person Board of Sewer Commissioners. The public sewerage served about 350 customers located in the Rye Beach-Jenness Beach area. Sewage is pumped to Hampton via a force main owned by the Town of Rye, in accordance with an Inter-municipal Agreement between Hampton and Rye. The agreement limits the quantity of sewage which Hampton is obligated to treat to 190,000 gallons per day as an arithmetic average daily flow calculated on a calendar year basis, with a further limit on peak hourly flow of 500 gallons per minute. Current flows are well within the flow limitations of the agreement.

In 2012, the Sewer Commissioners signed an agreement with Hampton and the State of New Hampshire which allows a new bathhouse at the North Hampton State Beach to be connected to Rye's force main. The new bathhouse opened in June 2013.

In 2010, Rye town voters approved the extension of the City of Portsmouth's sewerage to Foyes Corner, and in 2012, the Sewer Commissioners signed in Inter-municipal Agreement within the City of Portsmouth relative to the sewerage extension. The Inter-municipal Agreement is subject to the approval of the NH Public Utilities Commission, which is pending as of the date of this Master Plan. The Inter-municipal Agreement limits the expansion of the Portsmouth system in Rye to properties at Foyes Corner and properties which abut Sagamore Road north of Foyes Corner.

The City of Portsmouth also provides sewerage service to the Adams Mobile Home Park via a private force main which runs along Lafayette Road to a connection at the city/town line. This service is administered by the Rye Sewer Commission.

## 9.8 SCHOOLS

The Rye School District has an elementary and a middle school. The Rye Elementary School was built in 1955 on a site off Sagamore Road just north of the Wallis Road intersection. A four room addition was made in 1965, and in 1984 kindergarten was added. The Town owns total of thirty eight (38) acres at the elementary school as the site extends westward to the Portsmouth City line. Rye Elementary School is a public elementary providing quality education to students from Kindergarten through Grade 5 and houses 318 students. Rye Elementary School was chosen by the U.S. Department of Education as a Blue Ribbon School of Excellence for the 1998-1999 school years. Rye Junior High School (a middle school) is located in the center of Rye, New Hampshire in the midst of the Historic District. The immediate area includes historic homes dating from 1739, Parsons Park (Town field area forest saved for community use through community effort). The Rye Junior High School occupies a site of 3.8 acres just north of Lang Road. It was built in 1933 and had major additions in 1949 and 1997. The school is a sixth through eighth grade facility and houses 185 students from the Town of Rye and New Castle. The Rye Junior High Schools staff demonstrates a commitment to the middle school concept by placing emphasis on positive student/teacher relationships and responds to the interest and needs (academic and emotional) of young adolescents. Rye Junior High is accredited by New England League of Middle Schools (NELMS).

Both schools are fully accredited by the New England Association of Schools and Colleges (NEASC) and other comprehensive educational programs including the basic discipline areas of mathematics, language, arts, social studies and science. In addition, French/Spanish, art, music, physical education, life skills and industrial arts/technology (RJH) education are available.

The school district has 64 full-time and part-time professional staff, as well as, support from the SAU staff of 4 professional staff members and 5 administrative personnel. The school system has a strong reputation, ranks high among schools throughout the state and demonstrates a positive effect on real estate values. High school students attend the Portsmouth High School.

For more information on the school system, visit the school's websites:

Rye Elementary <http://sau50.org/rye/res>

Rye Junior High <http://sau50.org/rye/rjh>

### Mission Statements

Rye Elementary School believes, "Learning is a journey, not merely a destination. It is our mission at RES to provide a safe, caring, supportive environment in which students are encouraged to acquire knowledge, skills, and attitudes necessary to become lifelong learners and responsible citizens. We strive to actively involve parents, teachers, and community members on this journey".

Rye Junior High School will provide appropriately responsive school programs, policies, and practices to meet the particular intellectual, physical, social and emotional needs of each middle level learner. Young adolescents are talented in unique ways with a personal mix of diverse intelligences. Everyone within the community shares a responsibility for developing and nurturing the whole child. We resolve to make that learning a reality.

#### **A. SCHOOL DISTRICT GOALS (2013-2014)**

The Rye School District's mission is to provide an outstanding learning and teaching environment that meets every child's academic, social, physical, and personal needs. The standards and measurements for excellence that guide our District are stated in the New England Association of Schools and Colleges Standards for Accreditation.

We are taking significant efforts for continued school improvement. Our action items support the SAU's overarching goal of improving the personal, social and academic growth for every student and the guiding principle of improved student outcomes and high levels of learning for all.

#### **FOCUS AREA: CORE CURRICULUM**

Action Items for this year to enhance our current program:

#### **1. Lessons and units will follow a full implementation of the Common Core State Standards (CCSS).**

*Implementation Strategy:*

- a. CCSS Pacing guides in English Language Arts will be created to drive the instruction for each grade.
- b. CCSS will be posted and/or verbalized in student-friendly language during each lesson for students. Walkthroughs will document this practice.
- c. Lesson plans will outline the CCSS targeted for each lesson.

#### **2. Target instruction to challenge students and differentiate. Design professional development to enhance teacher skill in this area.**

*Implementation Strategy:*

- a. Oct. 11<sup>th</sup> Professional Development will focus on Webb's Depth of knowledge (DOK). Teachers will score classroom assignments for DOK to get baseline data. They will then score materials in the winter and at the end of the year to measure progress with creating higher DOK assignments.

3. **Review assessments given at each grade to determine purpose and effectiveness of data gathered.**

*Implementation Strategy:*

- a. Schools will compile a list of assessments administered in each building and tams will evaluate for effectiveness based on measuring student learning and teacher usability. A list of effective assessments that inform our instruction and measure student growth will be formulated.
- b. Rationale will be formulated for each assessment given.

4. **Keep parents us to date with changes in curriculum and instruction including examples of differentiation of instruction.**

*Implementation Strategy:*

- a. Curriculum guides will be updated and available to parents at Curriculum Nights as well as posted on the SAU website.
- b. Math In Focus Informational night will be held in the fall for parents.
- c. Monthly newsletters will inform parents about changes and how they can help their child.

**FOCUS AREA: TEACHER EVALUATION AND SUPERVISION**

Action Items for this year to enhance our current program:

5. **Staff will be provided training on the new supervision and evaluation plan focusing on teacher reflection and student learning.**

*Implementation Strategy:*

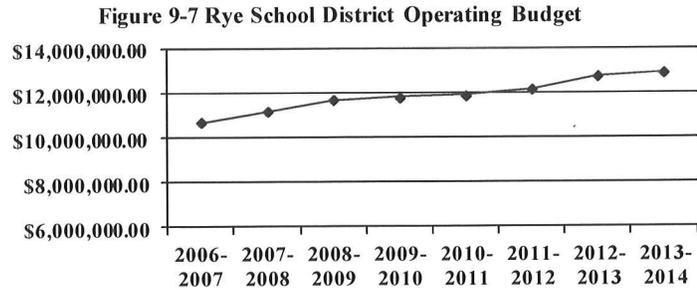
- a. Teachers will create Student Learning Objectives based on the Common Core Standards and submit for administrator approval by Oct. 15.
- b. A self-evaluation based on the SAU 50 Plan for Effective Teaching\* rubrics will be completed by each teacher at the beginning and end of the year to monitor teacher growth.
- c. Classroom walkthroughs, staff meetings, observations, and collaborative conversations will demonstrate the shift to an evaluation system based on student learning.

**B. FINANCIAL CONSIDERATIONS**

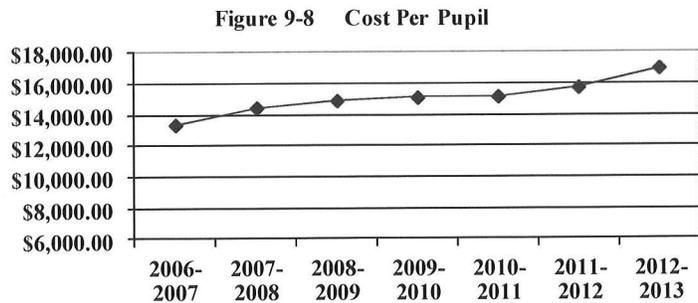
In regards to operating expenses, Figures 9-8 and 9-9 show the growth in operating budget and costs per student in the Rye School system. These operating expenses (capital expenditures were not included in this analysis) have run ahead of the inflation rate since the early 1980's. There are causes for this which are common to the public

education environment. Perhaps the most significant nationwide phenomena are the rise of the cost of “Special Education” programs, increases in the tuition rate to Portsmouth High School, the recent increases in health care costs and the fact that teacher salaries have consistently risen faster than the inflation rate as measured by CPI.

<b>Figure 9-7 Rye School District Operating Budget</b>	
2006-2007	\$10,774,720
2007-2008	\$11,226,739
2008-2009	\$11,743,809
2009-2010	\$11,838,517
2010-2011	\$11,922,195
2011-2012	\$12,212,449
2012-2013	\$12,794,784



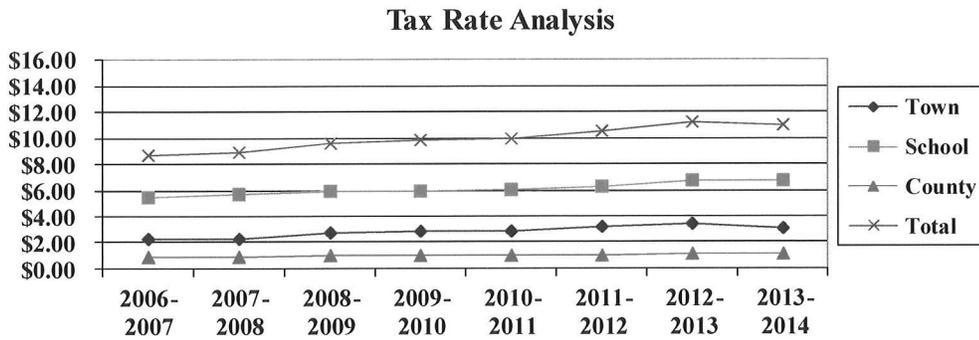
<b>Figure 9-8 Cost Per Pupil</b>	
2006-2007	\$13,406.90
2007-2008	\$14,499.92
2008-2009	\$14,953.07
2009-2010	\$15,146.37
2010-2011	\$15,216.26
2011-2012	\$15,796.56
2012-2013	\$17,024.07



Comparing the tax rate contributions for town, school and county tax assessments, the percentage of school taxes to the total tax rate has remained fairly constant over the past five years with the percentage being consistently between 59% and 61% of the total taxes.

Figure 9-9

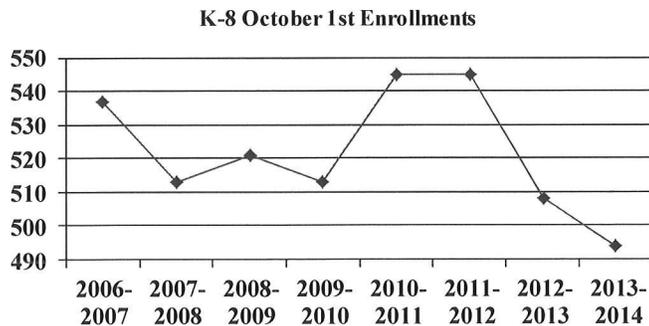
Tax Rate Analysis					
Year	Town	School	County	Total	% School
2006-2007	2.31	5.50	0.85	8.66	63.5
2007-2008	2.25	5.76	0.90	8.91	64.7
2008-2009	2.74	5.91	0.97	9.62	61.4
2009-2010	2.87	5.99	0.96	9.85	61.0
2010-2011	2.88	6.07	1.04	9.99	60.8
2011-2012	3.24	6.31	1.04	10.59	59.6
2012-2013	3.44	6.70	1.07	11.21	59.8
2013-2014	3.12	6.72	1.12	10.96	61.3



Finally, the student population in K-8 has been decreasing over the past several years. The school board will be watching this trend and making appropriate adjustments.

Figure 9-10

K-8 October 1 <sup>st</sup> Enrollments	
2006-2007	537
2007-2008	513
2008-2009	521
2009-2010	513
2010-2011	545
2011-2012	545
2012-2013	508
2013-2014	494



## 9.9 RECREATION

The Town of Rye Recreation Commission (RRC) has updated and published its official master plan, titled Recreation Department Master Plan 2011, which can be found in full detail at URL [http://www.town.rye.nh.us/Pages/RyeNH\\_Recreation/index](http://www.town.rye.nh.us/Pages/RyeNH_Recreation/index). That planning document is incorporated by reference and highlights provided below.

### A. Background and History

Vision: Rye Recreation Commission Vision: “Recreation provides a critical foundation for the quality of life that makes Rye unique. Recreation is essential to the health and well-being of the individual residents and the community of Rye. Recreation activities and services have far-reaching personal, social, economic and environmental benefits. The role of the Rye Recreation Department is to ensure that a broad range of recreation opportunities are available and accessible for all residents and that these are consistent with the needs and interests of the community and the space and resources available”.

Authority: The Recreation Department of the Town of Rye operates under the direction of the Rye Recreation Commission (RRC) founded in 1964. The RRC has jurisdiction under RSA Title III, Chapter 35-B, Public Recreation and Parks. It is responsible for land and facilities reserved for recreational use and providing leisure-time services to the residents of Rye. The RRC develops and enforces policies and procedures as well as plays a strong management role within the Recreation Department. The Commission is comprised of an active group of seven volunteer citizens that meet monthly to conduct business. Each meeting is open to the public and interested persons are welcome to attend and encouraged to contribute thoughts and ideas toward making Rye a more vibrant community.

Overall Planning Objectives: A large part of the Commission’s duties involves overseeing operations and making budget and policy decisions to support the current active recreation services and activities. A planning role is also important to ensure the current and longer term service objectives are and/or will be met. The Commission initiated an extensive survey of citizen’s interests, wants and needs in 2007, the summary of which can be found in the Rye Recreation Department Master Plan 2001 document to be found as detailed at the beginning of this 6.0 section. During the four years following the survey, the Commission has formulated plans and taken actions toward achieving many of those services that were requested by the citizens.

This Recreation Department Master Plan 2011 is intended to review and publish the Rye Recreation Department (RRD) short and long term goals, based on overall objectives established in this Town’s Master Plan (2006) and as suggested by citizens. This Master Plan will also benchmark participation and achievements towards those goals and confirm priorities. All of this must be viewed in context with the local economic, social and political realities of the community.

**Figure 9-11  
Recreation-1**

	<b>Rye</b>	<b>New Castle</b>	<b>Greenland</b>	<b>North Hampton</b>	<b>Portsmouth</b>
Population	5,169	1,031	3,442	4,565	20,579
Med. Age	44.4	49.6	38.1	42.3	38.5
Med. Income	\$75,195	\$100,997	\$75,013	\$80,471	\$58,417
Crime Rate	.590	N/A	.722	.991	.1977
Officers/K-1 Pop.	1.75	N/A	2.03	2.65	3.04

<ul style="list-style-type: none"> <li>• After School Program</li> <li>• Tennis</li> <li>• Summertime Horyezons</li> <li>• Babysitter Course</li> <li>• Art in Bloom</li> </ul>	<ul style="list-style-type: none"> <li>• Soccer</li> <li>• Golf</li> <li>• Yoga</li> <li>• Basketball</li> <li>• Skiing/Snowboarding</li> </ul>
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The Community: When evaluating the effects of recreation on the citizens, in part, one should consider recreation and youth programs – activities as playing an important role in child development. We believe that RRD has a positive impact on the development of the Rye youth program. These services and programs also encourage a sense of community and neighbor support among adults.

Core programs: Have been in place for at least 10 years, are well attended and the community has become accustomed to having these programs offered on a regular basis. The Rye After School Program (RAP) is a flagship program and a good example of core services and activities allowing adult parent residents flexibility to develop daily work-life schedules extending beyond a typical school day. The school aged youth population of Rye is expected to gradually decline through 2021, as it have over the past ten years. The kindergarten through fifth grade (K-5) is where the largest decline is expected, while the 6<sup>th</sup> grade through 8<sup>th</sup> grade (6-8) and the 9<sup>th</sup> grade through 12<sup>th</sup> grade (9-12) groups will decline at a much slower pace.

These are important groupings for recreation services and programs. As will be pointed out later, the K-5 grouping are heavy user of RRD services and programs, particularly the After School Program and Summertime Horyezons Program. These two programs made up 76% of paid fees received in 2010 and included 67 and 274 enrollees, respectively. The market penetration for the After School Program is 22% of available population and as explained later in more detail, this program is limited by space and staff to a maximum of 60 participants daily. This anticipated decrease in K-5 population should have little effect on the ability to fill this program each year. The Summertime Horyezons Program, on the other hand, includes 6<sup>th</sup> graders and it is estimated that this program had more than a 60% market penetration. This is a very popular program indeed and may experience some decline in participation as the student population continues to decline.

Town-wide Survey (2007): RRD mailed survey forms to all Rye households and received 242 responses, covering a total of 684 citizens. Respondent age dispersion was reasonably flat from age 35 to over 65 suggesting that the survey provided a balance of views between young families and retirement aged individuals. The complete discussion of data and results of this survey are contained in the full Recreation Department Master Plan. In summary, there were 10 questions that: 1) determined pas usage; 2) obtained preference ranking of existing programs and services; 3) asked for suggestions; 4) explored on Town Master Plan specific directions; and 5) satisfaction or preferences concerning administration of RRD.

**B. Connecting Present Day Operations with Survey Results**

Physical Resources: The laws of New Hampshire provide “All public property may be used for leisure time activities, provided that approval for its use has been granted by the appropriate authority in charge of that property. A cooperating agency may establish its own system of just compensation for the use of such properties. Similarly, any authority or body in charge of any public property may refuse use of its property for leisure services activities if interference in the intended use of the property would result.” (RSA Title III, Section 35-B:6)

There are a number of public facilities (and authorities) involved in the recreational activities in Rye, by a number of organizations including the Rye Recreation Department. The full Recreation Department Master Plan 2011 contains a complete discussion on this aspect, including a diagram that describes the complex interaction and interconnection governing use of these public facilities. The facilities under discussion are as follows:

Indoor facilities: under the authority of RRD are very limited, and only consist of:

- Recreation House (1,152 square feet) with rated occupancy of 45, has two restrooms.
- A modular building (52’ x 14’ = 728 square feet) has no restrooms.
- An unheated equipment storage shed, used as a snack shack on a limited basis.

Outdoor facilities: for RRD services and programs make good use of Town building assets – the Elementary and Junior High School buildings as well as the Rye Public Library are used for numerous services and programs. Significant plots of public lands and facilities are available for recreational use, including (governing authorities identified in brackets):

- Flash Jenness Memorial Little League Field (Recreation Commission)
- Ralph Morong Athletic Field (Recreation Commission)
- Ralph Morong Baseball Diamond (Recreation Commission)
- Recreation Playground (Recreation Commission)
- Recreation Area Basketball Court (Recreation Commission)
- Outer Marker Building and Land (Recreation Commission)
- Rye Elementary School Gymnasium (School Board)

- Rye Elementary School K-3 Upper Playground (School Board)
- Rye Elementary School 4-5 Lower Playground (School Board)
- Rye Elementary School Lower Baseball Field (School Board)
- Lang Corner Athletic Field (School Board)
- Lang Corner Baseball Diamond (School Board)
- Rye Junior High School Gymnasium (School Board)
- Rye Junior High School Athletic Field (School Board)
- Town of New Castle Recreational Facility (New Castle Board of Selectmen)
- Town Forest Trails (Conservation Commission)
- Parsons Field (Selectmen)
- Cable Road Extension Beach (Beach Commission)
- Sawyers Beach (Beach Commission)
- Wallis Road Extension Beach (Beach Commission)

Conservation Land Recreation Opportunities: For outdoor recreation, Rye has acquired a number of land parcels under the supervision of the Town Conservation Commission with community funding of \$5 million from a Warrant Article from 2003. Numerous plots of land have been purchased and/or easements obtained under this funding and are defined by their deeded terms to community service for several purposes, including recreation. The following section discusses some of those parcels and their possible uses:

Parcels acquired with support of federal funding under the “Coastal and Estuarine Land Conservation Program (CELCP) which was established in 2002 to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical or aesthetic values. The program provides state and local governments with matching funds to purchase significant coastal and estuarine lands, or conservation easements on such lands, from willing sellers. Lands or conservation easements acquired with CELCP funds are protected in perpetuity so that they may be enjoyed by future generations”. Below is a list of properties that have recent deeds recorded s purchases under this program:

- 12 Acres at 200 Locke Road
- 22 Acres at 40 Wallis Road
- 23 Acres at 309 Washington Road

Additional conservation land purchased outright by the Town of Rye recently, without federal funds and without any deeded use restrictions may also be opportunities for additional recreational activities:

- 2.8 Acres at 60 Ocean View Avenue
- 0.6 Acres at 47 Appledore Avenue
- 2.0 Acres at 643 Washington Road
- 12 Acres at 75 Recreation Road
- 8 Acres at 485 South Road
- 12 Acres at 42 Morgan Court
- 10 Acres at 15 Airfield Drive

10 Acres at 674 Washington Road  
5 Acres at 540 Washington Road  
14 Acres at 59 Spring Road

There are other Town properties acquired under Conservation or other provisions dating from before the 2003 Warrant Article that also may be available for recreation purposes. These land resources are generally passive opportunities – that is, available for those inclined to venture on their own for a nature walk, a bike ride or just to sit and watch birds and other wildlife. They may also be available for use in organized activities or active opportunities – noted herein as “services and programs”, so long as “...they do not interfere in the intended use of the property ...” (RSA Title III, Section 35-B:6).

Staffing Considerations: To execute services and programs staff is required (employees or volunteers) to lead a specific activity. In the area of services and programs for youth, the Recreation Department’s policy is to utilize some full-time but mostly part-time employees.

Budgets and Funding: The funding for RRD activities are accounted for in three distinct funding pools as follows:

- Recreation Budget – General Fund – Funded from Taxes
- Patriotic Purposes Budget – General Fund – Funded from Taxes
- Recreation Revolving Budget – Revolving Fund (authorized under RSA Title III, Section 35-B:2). Revenues received from fees and charges for recreation program cost are expended from this fund. The monies are able to accumulate from year to year are not deemed part of the general fund. Most importantly the fund has to be self supporting.

For more complete discussion and examples of the most recently included financial information see the annual Rye Town Report and the Recreational Department Master Plan 2011.

Seasonality of Programs and Services: Most of the services and programs are seasonal offerings in summer, winter, fall or spring. The Rye After School Program (RAP) is an exception that spans Fall, Winter and Spring and is, by far, the most resource intensive program. For analysis, we have separated the paid fees coming from RAP from that coming from all other services and programs because of the obvious heavy weight the RAP plays in the paid fees and expense. A snapshot of three year paid fees history follows:

**Figure 9-12  
Recreation-2**

<b>Programs</b>	<b>2010</b>	<b>% CH</b>	<b>2009</b>	<b>% CH</b>	<b>2008</b>
RAP	\$ 128,589	18%	\$ 109,454	39%	\$ 79,034
Summertime Horyezons	28,750	33%	21,626	6%	20,407
Skiing	9,995	-11%	11,175	23%	9,060
Soccer	9,040	8%	8,355	-22%	10,654
Tennis	7,093	-14%	8,218	176%	2,975
Basketball	5,790	15%	5,058	-41%	8,518
Surfing	3,600	-22%	4,635	122%	2,090
Lego	2,395	11%	2,165	-30%	3,096
Yoga	2,057	42%	1,447	-58%	3,404
Swimming	1,834	-19%	2,274	102%	1,128
Babysitter Course	1,750	84%	950	46%	650
Skateboard	1,740	-27%	2,380		
Golf	1,700	45%	1,172	111%	555
Baseball	1,625	44%	1,130	-68%	3,560
All other	852	-12%	973	-	4,881
<b>TOTAL</b>	<b>\$ 206,810</b>	<b>9%</b>	<b>\$ 181,011</b>	<b>21%</b>	<b>\$ 150,011</b>

Each of these programs and services are described in more detail in the Recreation Department Master Plan 2011.

Registration Process: Each quarter, RRD publishes the programs and services offered in the Town Newsletter and makes available the registration form and information on the Town website. Until online registration can be implemented, the process will remain intensive for brief periods each quarter.

Value of Program and Services: In an attempt to prove a measure of community impact or “value” of the services and programs, the Recreation Master Plan 2011, developed a measurement called “Resident Service Hours” or “RSH”. This measurement is calculated as the number of hours that a service or program lasted multiplied by the number of participants. This measure provides a common denominator and bottom line impact on the community – it provides the hours that residents were being served. The chart below summarizes the RSH values for each service and program conducted in 2010. Also provided are the aggregate hours of the offerings during the year for each service and program.

The hours included below are only the time during which residents are actively participating in the service or program. It does not include the training, program documentation and preparation effort that is required to execute successful programs. In some cases the materials are developed and maintained by community partner organizations. In other cases, such as the RAP and Summertime.

**Figure 9-13  
Recreation-3**

Program or Service	Hours	RSH	Program or Service	Hours	RSH
<b>RAP</b>	555	33,300	<b>Babysitter Course</b>	12	198
<b>Summertime Horyezons</b>	327	8,513	<b>Baseball</b>	15	198
<b>Soccer</b>	34	1,515	<b>Surfing</b>	18	156
<b>Basketball</b>	58	1,308	<b>Bicycle Rodeo</b>	6	120
<b>July 4<sup>th</sup> Celebration</b>	2.5	1,250	<b>Swimming</b>	22	115
<b>Art in Bloom</b>	12	866	<b>Speaker Series</b>	4	100
<b>Tennis</b>	48	508	<b>Skateboard</b>	53	97
<b>Skiing</b>	34	398	<b>Dance</b>	16	96
<b>Lego</b>	20	270	<b>Golf</b>	29	70
<b>Memorial Day Ceremony</b>	1.5	263	<b>Music</b>	24	24
<b>Yoga</b>	47	202	<b>Knitting</b>	4	8
			<b>TOTAL</b>	<b>1,333</b>	<b>49,075</b>

Horyezons Program, the continually changing materials are produced by the RRD and represent a substantial investment of additional hours. The program materials for the highest RSH programs (RAP and Summertime Horeyzons) needs to be continually renewed because many of the participants return year to year. The materials used to reflect new learning activities that will effectively hold participants attention and learning capacity.

Validating to Mission Statement: Using the mission statement as a guide and considering the 2007 Rye Recreational Survey, the following evaluation matrix offers a “bird’s eye” view of past services and programs.

**Figure 9-14  
Services and Programs Evaluation Matrix**

Objective/Program	H E A L T H	W E L L N E S S	P E R S O N A L	S O C I A L	E C O N O M I C A L	E N V I R O N M E N T A L	S U R V E Y R A N K	2 0 0 8 C O U N T	2 0 0 9 C O U N T H	2 0 1 0 C O U N T	Y E A R S R U N N I N G
Rye After School Program	x	x	x	x	x	x	4	52	77	67	>8
Summertime Horyezons	x	x	x	x	x	x	7	195	209	277	>8
Soccer	x	x	x	x		x	2/5	235	201	222	>8
Skiing	x	x	x	x		x	14	37	39	42	>8
Tennis	x	x	x	x			6	76	121	127	>8
Basketball	x	x	x	x			8	173	126	116	>8
Surfing	x	x	x	x		x		11	21	21	3
Lego		x	x	x				42	29	27	4
Babysitter Course	x	x	x	x	x			14	19	32	>8
Skateboard	x	x	x	x				0	28	16	2
Golf	x	x	x	x		x	17	24	18	20	>8
Baseball	x		x	x		x		52	20	20	7
Yoga	x	x	x	x			10	36	17	30	>8
Art in Bloom		x	x	x				59	47	61	6
CPR/First Aid	x	x	x	x	x		18	1	2	0	8
Gymboree	x	x	x	x				3	0	1	3
Bike Rodeo	x	x	x	x		x		40	50	40	3
Knitting		x	x	x				7	1	2	8
Pottery		x	x	x			16	6	0	0	5
Dance – Jazz, Ballroom, Hip Hop	x	x	x	x				0	10	6	4
Culinary	x	x	x	x			22	0	0	0	3
Speaker Series	x	x	x	x	x	x	13	125	125	125	>8
Arts & Crafts		x	x	x			12	0	0	0	3
<b>Totals</b>								<b>1,188</b>	<b>1,160</b>	<b>1,302</b>	

**C. Going Forward Strategy**

The Recreation Commission has worked hard to bring a broad spectrum of recreational opportunities to the community and for the most part the success rate has been very high. Participation in services and programs has increased in each of the past three years. The Recreation Commission and staff are constantly reviewing services and programs to make them better. But where are we going in the years to come?

Direction Set by the Public: To paraphrase the most significant points of the Community Survey of 2007, the RRD planning will consider the following: With Parsons Field events offering the widest possible contact exposure to the public (question 1), RRD will consider venues for better communication (questions 6 & 10) on services and programs and no solicit feedback.

The six most requested development areas (referencing questions 2 & 5) will be revisited with: a) trail and path development in partnership with the Conservation Commission and other Town Departments; b) outdoor ice skating rink and tennis courts are currently in the Town’s Capital Improvement Plan; and c) a Community Center is also in the Town’s Capital Improvement Plan for 2014.

Maintaining and Improving Facilities: In addition to those items reference above, the RDD has provided the Capital Improvements Planning (CIP) Committee with planned project submissions for Town consideration that address a number of deficiencies with current operations (See Appendix 3 of the full Recreation Department Master Plan 2011).

The new Playground project (submitted for CIP in 2009) was completed in 2010, a “top-10” item in the survey. The list of projects submitted to the CIP Committee in 2010 is shown in the table below, along with their estimated cost and expected funding year.

**Figure 9-15  
Recreation-4**

<b>Recreation Dept. Projects</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Septic System	\$10,000					
Website/e-commerce		\$10,000				
Parking Lot Expansion		\$22,500				
Community Center				\$350,00	\$341,250	\$341,250
Tennis Courts				\$90,000		
Outdoor Ice Rink					\$15,000	

The first three on the list (septic system, website/ecommerce and parking lot expansion) are intended to correct conditions that are not adequately supporting the current activity levels. The website/e-commerce project addresses a priority set in Survey question #7, with most respondents referring to register for services and programs online. The final three in the list above (community center, tennis courts and outdoor ice rink) are additional facilities that will fulfill some of the higher priority items seen in the survey.

The Community Center is the largest and most exciting project the Recreation Commission proposes to undertake and is still in the early planning stages. The funding shown in the CIP chart above represents estimated bond payments of a theoretical investment on \$1.5 million – simply a “place-holder” amount with the true development costs to be determined. It is of great interest to note; however, that, with the potential

renovation and/or replacement of Town Hall in the future, there might be a great opportunity to join the Town Hall and Community Center projects to produce a more flexible space that is greater than the sum of the parts.

Strengthen Alliances: Recreation Departments in a number of communities are recognizing the synergistic uses of assets shared between school and community recreation. In Rye, we have exercised that model with the After School Program with great success. With schools not in session from mid June to late August and every day after 4, the assets provide great recreational value to the citizens. Conversely, children and young adults are the most enthused users of recreational services and programs. In towns like Mason, OH, community centers were joined with high school facilities making assets, like indoor swimming and diving pools, available for school as well as community activities. Sharing and partnerships makes good sense for all concerned, therefore, the Recreation Commission intends to continue building relationships and partnerships with public and private organizations to build community recreational opportunities. Some of the active and successful partnerships currently being used by RRD are:

- |                    |                      |
|--------------------|----------------------|
| Town of New Castle | Rye Public Schools   |
| Rye Public Library | Webster at Rye       |
| Rye Airfield       | The Rye Garden Club  |
| American Red Cross | Seacoast Family YMCA |
| Rye Art Study      | McIntyre Ski Area    |

Balancing Priorities and Managing Expectations: The reality of life in a small New England “bedroom community” like Rye is that financial resources are constrained to a large degree by the tax base, which is tied to home valuations. With the economic downturn in home values across America for the past several years, Rye has also been impacted by stable to slightly declining values. This necessitates moving forward cautiously with large financial commitments. The good news over the same time period is that existing recreational services and programs are successful and growing, within a model of self funding. The citizens of Rye are finding good value in these services and programs as is reflected in responses to question 9 and in the growth of enrollments. There is more that we can and will do within this successful model.

Since the survey was taken in 2007, much has happened and the “recreational landscape” has changed dramatically. The number of persons served by the services and programs has grown by nearly 30%, the investment in public land has grown significantly and surely citizen expectations have evolved with changing times. The Recreation Commission plans on initializing additional survey and opinion gathering tools in coming years to refresh the “view”. While the current success suggests staying on course as planned, the Recreation Commission stands ready to adjust the Master Plan as dictated by the public needs and wants.

The following schedule will assist in the timely and consistent evaluation and renewal of RRD priorities:

**D. Planning Timetable**

**Figure 9-16  
Recreation-5**

<b>Planning Action</b>	<b>Periodic Schedule</b>	<b>Next Date for Completion</b>
CIP project submissions	Annually	Early summer 2012
Budget Review	Annually	Late summer 2012
Program feedback questionnaire	Ongoing	Start spring 2012
Survey mailed to households	Every 5 years	2012 then 2017
Update Master Plan	Every 5 years	2013 then 2018

Building the Future: This Master Plan concludes the following key building blocks will be exercised to advance the RRD forward and in support of the Town Vision:

- Extending useful recreational value for existing assets (trails, bike paths, program expansion were interest warrants)
- Expand key assets to fulfill citizen’s continuing interests (tennis courts, outdoor ice rink, community center).
- Expand community value added relationships and partnerships in order to increase a broader offering as stated in the RRC Vision.

**9.10 PUBLIC LIBRARY**

**A. Vision and Mission Statements**

Vision –

The vision of the Rye Public Library is to be the cultural heart of Rye by facilitating the free flow of ideas and information for all members of our community.

Mission –

The Rye Public Library will be a friendly and inviting place providing unrestricted access to an array of materials, programs, and technologies that inform, educate and entertain. We will promote the value of reading and encourage the quest for knowledge and experience, to enrich lifelong learning, discovery and creativity. The Library will be a *mine of good* and a *foundation of help* in the guiding spirit of our original benefactor, Mary Tuck Rand.

*-- Adopted by the Rye Public Library Board of Trustees, February 9, 2012*

Having long recognized the need for the development of a comprehensive strategic plan outlining future directions and service priorities, the Board of Trustees and staff of the Rye Public Library, with wide scale community involvement, have worked over the last

two years to develop a Three-Year Strategic Plan. With the stage set by earlier research such as the detailed Library customer satisfaction survey conducted in 2005, and smaller scale planning projects in the intervening years, our current Strategic Planning Committee took on a fully integrated planning project. This included the formation of focus groups of all interested stakeholders, including townspeople, community organizations, and local schools. Throughout 2011, this document will begin to guide the Library's direction in conjunction with the Town of Rye Master Plan.

A guiding committee was first established to design the planning process. This committee then made wider invitations to establish our full Strategic Planning Committee with the charge of working in advertisement to the Rye Public Library Trustees in helping undertake the many aspects of developing a Three-Year Strategic Plan for the Rye Public Library.

Work began in spring 2011 with monthly meetings of our Planning Committee to implement the plan design which incorporated a public visioning session, and library technology summit discussion to draw wider community input to the steady background work of the Planning Committee. Consulting firm Opus Advisors was brought onboard to assist with the public visioning session component of the plan. The entirety of 2011 was spent in developing our plan, along with the important work of honoring and commemorating the Centennial anniversary of the Rye Public Library.

The results of Committee research along with public, Trustee and Library staff input, were compiled to formulate the goals and objectives presented here. Assessments of current conditions in Rye along with future possibilities were considered by these capable groups during the planning process. Service responses were determined to direct the priority of the multitude of inputs considered in the planning process. Expanding on the existing Town of Rye Master Plan, our planning work centered on developing roles for the Rye Public Library in helping further the visions of the Master Plan. In this way, our planning builds harmoniously on the community standards established in the Master Plan, and continues to enhance the Town of Rye through further integrating the role of the Rye Public Library.

Once a strategic plan is developed and implemented, the process has really just begun. While every effort was made to capture an accurate baseline during the planning process, unforeseen changes are inevitable. Our plan will remain dynamic through regular assessment of progress and reporting throughout its duration. Vital to successfully fulfilling the monitoring and assessment of our Strategic Plan was the assignment of measurement methodologies to each goal, objective and activity contained in the plan. Our Strategic Planning Committee will reconvene at intervals during the duration of the plan to compare metrics and contribute to reporting on the progress of our Three-Year Strategic Plan.

The Rye Public Library Three-Year Strategic Plan 2012-2015 can be assessed in its entirety through our website [www.ryepubliclibrary.org](http://www.ryepubliclibrary.org) or in print at the Library. Please

use these resources to consider the content of this important document as an adjunct to the full scope of the Town of Rye Master Plan.

The Rye Public Library continues its hundred-year tradition of serving Rye with outstanding community engagement and satisfaction. With a population just 20% of the average across the state, RPL tabulates rates of service and attendance at a statistical level rivaling much larger communities. We accomplish this proud record by offering the wide variety of resources and experiences community input indicates as most important to delivering relevant service in a contemporary public library.

A pioneer in the state of New Hampshire in the provision of electronic reading devices to our patronage, RPL continues to adapt to the realities of today's library service and to lead in innovation through the ongoing expansion of electronic media offerings in many formats to enhance our outstanding print collection. Our planning indicated the importance and value of both offering varied cultural programming at the Library in its expanding role as a community gathering place, and subsequent communication of our offerings. Our busy schedule, developed in recognition of this input, can be viewed at our website, through our expanding social media presence and in our electronic newsletter distribution.

Even as we have expanded our hours of operation and schedule of services in reflection of planning input, we have continued to streamline our operations and maximize cost efficiencies. We look forward to working with the community of Rye to enlist adequate resources to allow for the fulfillment of our current goals as set forth in our Three-Year Strategic Plan. We also look to our recent planning process as a model for the continued assessment and adaption of our services to best fulfill our role as your public library and to cooperatively work toward the objectives of the Town of Rye Master Plan.

In 2005, the Rye Public Library, in conjunction with the University of New Hampshire Survey Center, conducted a comprehensive customer satisfaction survey of all Rye residents, both year-round and seasonal. An analysis of the survey results and comments resulted in the implementation of many immediate service improvements, including greater outreach to senior residents by providing home deliveries of library materials and transportation to the library for programs via the Rye Senior SERVE van. The Rye Public Library also has strengthened its presence in the community by conducting a library card drive at the 2006 election polls, and by offering welcome packets with pertinent information outlining town services for new residents. The Library has greatly increased the number of computers available to patrons, in a Wi-Fi environment, and is currently exploring adaptive technology enhancements that will offer senior greater access to our electronic resources. Conclusions drawn from survey data have resulted in the realignment of collection acquisition priorities to accommodate the community's request for additional DVD's, large print and audio books.

In 2007, the Rye Public Library received a grant to participate in the New Hampshire State Library's downloadable audio book program. This will further satisfy the need for additional audio books by providing 24/7 access to a digital media collection of more

than one thousand titles for all ages on multiple genres. In addition, based on programming preferences identified in the 2005 community survey, the Rye Public Library plans to offer a year-long genealogy lecture series during 2007-2008. Due to the popularity of the Friends of the Rye Public Library's annual lecture series and children's programming, and with their continued support, we hope to increase the number of educational, cultural and musical programs, offered throughout the year. Additional improvements underway for 2007 include the launch of a professionally-designed new website and thanks to the generous support of the Friends of the Rye Public Library, a significant upgrade to the audiovisual equipment and versatility of our well-used Community Meeting Room.

## Appendix 1

### Functional [Federal] Road Classifications

Map 1 shows the distribution of Rye's roads according to their functional classifications. Higher order roadways (arterials) are more oriented towards moving traffic, and lower order roadways (collectors and local streets) are oriented towards providing access to land uses adjacent to the roadway (see Concordance). These distinctions are important because functional classes are used to determine whether and under what conditions Federal highway funds may be utilized: roads that have a class of Collector or higher are eligible for Federal highway funds. In addition, understanding the function of each roadway is important in setting policy and for designing improvements. In Rye, our major roads are classified as follows:

- *Principal Arterial*: Serve major centers of activity, the highest traffic volume corridors, and the longest routes. In addition, they generally carry the major portion of traffic entering and exiting the community. Route 1 performs that function through Rye and is connected directly to the town via Washington Road as well as via Lang and Elwyn Roads through Portsmouth. This highway provides connections to Interstate 95 and the Spaulding Turnpike.
- *Minor Arterial*: Links and supports the principal arterial system. Minor arterials are roads which place a greater emphasis on land access than the principal arterial and therefore offer a lower level of mobility. They serve as links between larger and smaller towns or as connections between collectors and the primary arterials. These routes can also serve as commercial corridors with a wide variety of businesses along their lengths. NH 1B performs this function through Rye and connects Newcastle to Portsmouth via NH 1A (Ocean Boulevard) and Elwyn Road.
- *Collector*: Provides both access to land uses along the roadway and circulation within residential neighborhoods, and/or to commercial and industrial areas. It differs from the arterial system in that the facilities on the collector system may penetrate residential neighborhoods. Conversely, the collectors also collect traffic from the local streets in residential neighborhoods and channel it into the arterial system. This classification can be further divided into major and minor collectors. Outside of urban compact areas, those routes that serve as arterials become collectors. Ocean Boulevard (NH 1A) is considered a Major Collector due to its rural setting, while Elwyn Road is considered an Urban Collector due to its proximity to Portsmouth and connection to US 1. Washington, Wallis, and Sagamore, and several other roads are also considered more minor Rural Collectors.
- *Local Roads*: Comprise all facilities not on any of the three systems described above. Their function is to primarily provide direct access to abutting land and access to the higher order systems. They offer the lowest level of mobility, and service to through traffic movement is usually discouraged. Local roads are generally not eligible for federal funding for improvements or maintenance. In Rye, these local roadways account for over 70% of the total roadway miles.

## Appendix II

### Current Zoning Parameters in Rye, New Hampshire

The information is derived from the build out study completed in 2002 for the town of Rye by the Rockingham Planning Commission. The districts discussed are as shown on the zoning map on the next page. Below are brief descriptions of Rye's zoning districts. Further elaboration can be found in Rye's Zoning Ordinance.

The majority of Rye is zoned for residential use and falls into one of two districts. The **Single Residence District (SRD)** is approximately 5268 acres in size, covering roughly 70% of the town. Permitted uses include single-family homes, farms, and limited home occupations. Current zoning also allows the following uses by special exception\*: mobile homes, condominium conversions, hospitals, convalescent or nursing homes, and homes for the elderly.

The major difference between the **General Residence District (GRD)** and the SRD is that in the GRD, dwellings consisting of two single-family units are allowed provided that such units are used by no more than two families per dwelling. Approximately 450 acres of land are zoned for this use.

**Conservation Districts** have been so zoned to "permanently preserve unique natural resources from inappropriate development." There are currently approximately 650 acres of land zoned for conservation in Rye. Among permitted uses are open space and forestry, trails, picnic areas, minimal walkways and structures to support the same.

The **Business District (BD)** is a zone for the location of small retail and service enterprises. It is approximately 55 acres in size and is interspersed throughout town. It allows all the uses permitted in the SRD plus small retail enterprises, limited professional businesses, and lodging establishments as articulated in the Ordinance. The Zoning Board of Adjustment may allow by special exception\* other expanded uses (including the sale of petroleum products) as outlined in the Ordinance.

The **Commercial District (CD)** is a general district allowing a wide range of commercial activity. Approximately 221 acres of land located in the US Route 1 corridor are zoned for commercial use. Generally, our Ordinance allows in the CD any uses permitted in the BD and any residence district except single- or 2-family dwellings; vehicle salesrooms, lumberyards and building supplies; professional offices, financial institutions, and the retailing of goods and services. Other uses may be allowed by special exception\* provided that they are not detrimental or injurious to the neighborhood

The **Public Recreation District** includes all lands owned by the Town of Rye, the Rye School district and the State of New Hampshire reserved for recreational purposes. The district includes approximately 443 acres of land throughout town.

#### Single Residence District

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\* The zoning terms "special exception," "variance," and others are defined in the Concordance.

The majority of Rye is zoned for residential use. The Single Residence District is approximately 5268 acres in size and is roughly 70% of the town. As listed in the Zoning Ordinance, permitted uses in this district include:

- Single-family homes.
- Home occupations of persons residing in buildings in which businesses are located.
- Public schools education use.
- General municipal recreational use.
- Churches.
- Aquaculture (within the Wetlands Conservation District).
- Farm, including the sale of products grown on premises only.
- Golf courses.

The following uses are allowed in the Single Residence District by special exception granted by the BOA:

- Cemetery.
- Greenhouse or horticultural enterprise.
- Hospital, convalescent or nursing home, home for the elderly.
- Religious or educational institution.
- Municipal Use.
- Public Utility Use.
- Condominium Conversion.
- Mobile Homes.
- Quarries pits and turf farms.
- Bed and Breakfast Facilities.
- Business Use of a Residence.

General Residence District

General Residence District is a residential district that allows all of those uses allowed in the Single residence District as well as dwellings consisting of two single family units to be used by not more than two families per dwelling. The following uses are allowed by special exception granted by the BOA:

- Cemetery.
- Greenhouse or horticultural enterprise.
- Hospital, convalescent or nursing home, home for the elderly, religious or educational institution.
  
- Municipal Use.
- Public Utility Use.
- Condominium Conversion.
- Mobile Homes.
- Quarries pits and turf farms.
- Bed and Breakfast Facilities.

### Conservation District

Areas in the Conservation District “permanently preserve unique natural resources from inappropriate development.” The following are permitted uses:

- Open space, forestry, conservation areas.
- Aquaculture that does not involve any construction of buildings or structures.
- Hiking trails, nature trails, picnic areas, bicycling trails, cross country skiing trails, and horseback riding trails, including bridges and wooden walkways appurtenant thereto.
- Nature centers, interpretive centers.
- Blinds for observing or photographing wildlife, birds and waterfowl.
- Uses accessory to any of the above permitted uses provided no buildings are constructed.

### Business District

The Business District is a zone for the location of small retail and service enterprises. It is approximately 55 acres in size and is interspersed throughout town. The following uses are allowed in the district according to the zoning ordinance:

- Any uses permitted in the residential district.
- Retail establishment for the sale of groceries, dry goods, and other items commonly related to the retail grocery business.
- Drug stores, barber shop, beauty parlor, tailor shop, TV service, retailing of toys and hobby crafts, bicycle shop and other similar uses.
- Gift, novelty, and sports shops.
- Restaurant, tearoom, ice cream shop, or similar place serving food or beverage.
- Motel, tourist camp, lodging house, and hotel.
- Business, financial, professional or government offices.

The following uses are allowed by special exception granted by the BOA:

- Greenhouse or horticultural enterprise.
- Hospital, convalescent or nursing home, home for the elderly, religious or educational institutions.
- Municipal Use.
- Public Utility Use.
- Membership club.
- Condominium Conversion.
- Mobile Homes.
- Quarries pits and turf farms.
- Any use of the same general character as any of the uses herein allowed.
- The sale of gasoline, diesel fuel, kerosene products and liquefied petroleum gas is prohibited in the business District.

### Commercial District

The Commercial District is a general district allowing a wide range of commercial activity. Approximately 221 acres of land are zoned for commercial use in this district that is located along the US Route 1 corridor in town. The following uses are allowed in the district according to the zoning ordinance:

Any uses permitted in any residence district except single family and two family dwellings.  
 Any use permitted in the Business District.  
 New automobile salesrooms, new boat salesrooms, new trailer salesrooms, farm machinery salesrooms, lumberyard and building supplies.  
 Professional offices, financial institutions, general retailing of goods and services.

The following uses are allowed by special exception granted by the BOA:

Any use of the same general character as any of the uses herein allowed.

The following uses, provided that the use shall not be detrimental or injurious to the neighborhood by reason of the emission of odor, fumes, smoke, vibrations, or noise of any other cause, to wit: wholesale establishments for manufactured solid materials, gasoline stations, public garages, diners.

- Cemeteries.
- Greenhouse or horticultural enterprise.
- Hospital, convalescent or nursing home, home for the elderly, religious or educational institutions.
- Municipal Use.
- Public Utility Use.
- Membership club.
- Condominium Conversion.
- Mobile Homes.
- Quarries pits and turf farms.

Public Recreation

This district includes all lands owned by the Town of Rye, the Rye School district and the State of New Hampshire reserved for recreational purposes. The district includes approximately 443 acres of land throughout town.

ZONE	ZONING DISTRICTS	MINIMUM LOT SIZE	FRONTAGE	SETBACKS		
				SIDE	FRONT	REAR
SR	Single Residence	66,000	200	20	40	30
GR	General Residence	44,000	150	20	30	30
B	Business	44,000	150	20	30	30
C	Commercial	44,000	150	20	30	24
REC	Public Recreation					
CON	Conservation District					

## Appendix III

### State of New Hampshire, NH Office of Energy and Planning Regional Planning Commissions

#### County Population Projections, By Municipality Fall 2013

The attached tables present county level population projections by municipality for the period 2010 through 2040. The projections are done in five-year intervals, and are consistent with the county population projections in the report titled: State of New Hampshire, Regional Planning Commissions, Office of Energy and Planning - County Population Projections, 2013 By Age and Sex.

The method used to develop these municipal level projections starts with the above forecast for total population for each county in New Hampshire. Because these numbers are controlled to the county and state projections, these numbers are considered reasonable in the aggregate as well as at the local level. Next, the town/city share of county population in the 2010 Census (with the Census revisions) was developed and compared to the 2000 Census share of county population for each town/city in that county. This analysis revealed that the share of each municipality's population (relative to the county) has been changing over time. To confirm the observed trend, municipal shares of the county population were examined for the Census years 1970, 1980, and 1990. That analysis confirmed the observed trend in changing shares over time.

The methodology used to allocate the county population projections to the municipalities assumes that the 2000 to 2010 shift in share (municipality as a share of the county) will continue into the year 2020. The method attempts to account for a community's share of the county's recent population change, rather than assuming an unchanging share of the county's total population.

Next, that share of the municipality's population relative to the county's population is frozen at the 2020 share level (held constant) through the remaining 20 year projection period (2020 to 2040).

The Office of Energy and Planning, the Regional Planning Commissions and the Projections Committee encourage the use of these projections as a point of departure for users to establish their own projections and/or for evaluating other projection efforts. Users of these projections are cautioned about placing strong confidence in very small projected changes of population. Small changes, up or down, essentially mean that a community is expected to be "stable" for the involved time period. Small changes in population may simply be the result of controlling to county totals or rounding.

Finally, the Office of Energy and Planning wishes to acknowledge the efforts of Robert Scardamalia, the consultant on this project, and the Projections Committee, comprised of the nine Regional Planning Commissions, Dennis Delay from the Center for Public Policy, and Russ Thibeault of Applied Economics Research, for their valued assistance in producing these projections.

