Topsham Inventory and Analysis 2018

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Agriculture and Forest Resources

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of the agricultural and forestry capacity within Topsham and the surrounding region.

This Chapter is organized into five sections:

1. Agricultural Resources
2. Agricultural Product to Market
3. Local Agricultural Protection
4. Forestry Resources
5. Implications

According to the 2007 Natural Resources Plan, 82% of land cover in Topsham is characterized by forests, farms and wetlands (approximately 26 square miles). The 2012 Census of Agriculture, which was conducted by the United States Department of Agriculture, shows that while the number of working farms declined by 4% nationally, the number of Maine farms has increased slightly since the last census was done in 2007. In 2012, there were 8,174 farms operating in Maine, up from 8,136 in 2007 and 7,196 in 2002 (2002 being the data captured during our last comp plan). The number of Maine farmers under age 34 increased from 396 in 2007 to 551 in 2012. There were also more women farmers in Maine in 2012 – 2,381, compared with 2,043 in 2007.

This statewide trend reflects similar occurrences within the greater Topsham region.

AGRICULTURAL RESOURCES

The focal issue for farming operations in Topsham is their economic viability and the associated implications for land use and preservation of open space. New farms that are starting up tend to be smaller in scale and sell high-value products to the local market. The large land-intensive farms with woodlots and rolling pastures are becoming increasingly difficult to keep viable.

As of 2016, Topsham has nine working farms. In addition, Topsham has several landowners who devote acreage exclusively to producing hay, which is sold to horse owners and cattle operations. Topsham also has farm hobbyists and residents who live on farms but do not work the land. Topsham does not have any designated Forever Farms under the Maine Farmland Trust program.

Economically, agriculture is a minor component of the town's overall employment and output profile. Most of Topsham's farms are owner-operated and family run. According to census estimates, in 2010 there were almost 40 residents employed in agriculture, forestry, fishing and hunting, and mining. Though still a small number in 2010, it is clear that agricultural employment has dropped. Data collected from the Quarterly Census of Employment and Wages reports that in 2015, Sagadahoc County employed an average of 40 workers in "Agriculture, Forestry, Fishing and Hunting", earning a total of $771,088 and an average of $19,398 in annual wages.

The farms that persevere in Topsham are active and well known. Some farming operations have local retail components that are popular in the community. For example, Bisson Farms maintains a popular retail meat store, Fairwinds and Whatley Farms offer locals year-round CSA memberships and Sunset Farm sells products at stands in the Topsham Fair Mall. In 2006, Topsham added a seasonal retail provision to its code to offer the opportunity for local agricultural producers to seasonally sell their products in expanded areas which were previously restricted by zoning measures.

Through the Local Farms – Local Food initiative of the partnering regional land trusts, a list of working farms within the region was developed. It identified the following lands that are considered working farms:

1. The Imperial Hosta
2. Urban Garden Center
3. TOP-ME Gardens
4. Wakely's Greenhouse
5. Mums Plus
6. Favreau's Greenhouse
7. Sunset Farm Greenhouse
8. Weymouth Brook Farm
9. Jonaitis property
10. L & P Bisson and Sons Inc.
11. Utecht Farm
12. Whatley Farm
13. Bradley Pond Farm
14. Sandelin Farm
15. McManus Farm
16. Fairwinds Farm
17. Windward Farm

The list includes farms from Freeport to Dresden (including all towns within Sagadahoc County). There are nearly 200 working farms within this region.

AGRICULTURAL PRODUCT TO MARKET

The town supports natural resource based industries via the land use code through the following code chapters, both of which were added to the town's code in 2008:

- Rural entrepreneurial activities
- Reuse of agricultural building for nonresidential use

The town has developed and incorporated standards for "food processing" which address a proposed food hub that has not yet been established. The food hub was proposed to occupy the former naval commissary. The former commissary building has since been bought by local coffee roaster, Wicked Joes. Financing a food hub remains a challenge, but the town is well prepared to allow for this type of use.

The Sagadahoc Agricultural and Horticultural Society is a local non-profit that runs the Topsham Fairgrounds and holds a winter farmers market from 11am-4pm every Friday with music and food as well. The Fairgrounds are supported by the community in all of their event coordination.

LOCAL AGRICULTURAL PROTECTION

Today, Topsham relies upon both a suite of incentive-based zoning tools, acquisition of land and conservation easements to protect local agriculture. Though the town does not currently have an agricultural zoning district, there have been standards adopted within the zoning ordinance to encourage clustering and the protection of working farms and open fields when subdivision of land occurs. Land in the R3 Zone can be divided using one of three zoning tools, or a combination thereof: 1) as a conventional subdivision; 2) as a large-lot subdivision; or 3) as an open space subdivision. Furthermore, the Agricultural Land Conservation and Development standards work to protect open land of 10 acres or more by providing further incentives to the base Open Space Subdivision ordinance. Farms in Topsham are generally less than 100 acres and scattered throughout town, making it difficult to create specialized zoning districts. At this time, the majority of the rural lands are zoned R3 with a minimum lot size of 1.5 acres.

In 2010, a Development Transfer Overlay (DTO) District was added to Topsham's zoning code. The DTO District aims to encourage growth within the designated residential growth area and to minimize development in rural areas that are resistant to intense residential growth. In order to achieve this, the DTO District allows developments to build at higher densities with development transfer credits purchasable by paying a fee to the town. The money collected from these fees is invested by the town to acquire conservation land and/or easements and open space, which may often be critical forested and non-forested upland habitats or farmland.

Farmers and landowners in Maine are hesitant to enroll their properties into the Agricultural Tax Exemption program for a number of reasons including preservation of development rights, financial repercussions of un-enrolling property, land acreage (properties under 5 acres that do not qualify), or to avoid being on government lists. At the same time, new farms that are starting up tend to be much smaller in scale and sell high-value products to the local market. The Farmland Tax Law offers a tax exemption to tracts of land greater than five contiguous acres which generate an income of at least $2,000 from farming activities each year. In 2016, 60 parcels totaling 2,251 acres of land are enrolled in the Farmland Tax Program. Still, it is difficult to capture an accurate assessment of the contribution that agriculture has to the local and state economy when many farms are not being registered or do not meet the size threshold to qualify.

From an acquisition perspective, farmland preservation programs focus on medium to larger-sized agricultural properties, the ability to create networks of contiguous lands, and locations where revenues from local municipal and/or land trusts and other non-profits can leverage funds to make acquisition happen.

Pressure to Develop

The Natural Areas Plan, prepared as a result of the 2007 Comprehensive Plan, identified four focus areas: 1) the Ward Road area, 2) the Bradley Pond/ Western Cathance River Corridor, 3) the Eastern Cathance River Corridor, and 4) the Muddy River area. These areas contain significant natural areas such that the land within that area might be appropriate for special consideration, further study, or greater attention when considering town policy toward land conservation, land use, and information and outreach efforts. The plan also identified an ongoing, steady pattern of dispersed, one-off new residential houses being built in these focus areas. Looking at 2017 Building Permit (BP) data, this trend of dispersed residential growth has continued.

FORESTRY RESOURCES

Much of the land in rural areas of Topsham is covered by

forest. Commercial logging in Topsham is insignificant, except for a few properties that produce firewood for sale to the public. The biggest threat to forestland in Topsham is residential development.

The town owns several tracts of forest land, including a 160-acre tract of forest at the solid waste facility. The town's forest has a management plan, and was recently harvested. The Foreside recreation area owned by the town also has a forest management plan, and the town intends to do a light harvest there with a public educational aspect. There is a dedicated reserve account for the ongoing management of Topsham's forests, and the town intends to conduct forest management planning on parcels proximal to West Merrill Road.

The Cathance River Education Alliance (CREA) established a preserve totaling 235 acres. CREA's Preserve consists of forests, wetland areas, vernal pools, trails, and a bird sanctuary.

Local Initiatives

The town of Topsham continually applies for and is successful with receiving project canopy grants. Topsham has a street tree management plan that guides maintenance and long-term tree management planning efforts.

In Topsham, there is a Tree Committee dedicated to creating awareness about the value of forests, trees, and forest management in plans for parks, public lands and commercial property developments in order to improve the quality of life for the town's citizens. The Tree Committee acts as a resource for local government, citizens and businesses to facilitate the merging of man-made and natural environments so that both are accommodated and valued in the process. Currently, the Tree Committee and Public Works Department are working with State Officials as part of the monitoring of the invasive Emerald Ash Borer (EAB).

IMPLICATIONS

Rural landowners in Topsham have relied on the Tree Growth Tax Law to reduce their tax bills and help keep large areas of Topsham rural. Forestland that is enrolled in the program is assessed for its current use, as opposed to its potential fair market value for more intensive uses. The State reimburses the Town for the tax revenue that was lost because of the lower valuation. The per- acre reimbursement is 90% of the per acre tax revenue lost due to tree growth enrollment. In 2016, Topsham reported a total value of $1,344,481 on its Municipal Valuation Return. The local tax assessment for land in Tree Growth is mandated by the State of Maine on a per county basis. The revised value is distributed to municipalities by Maine Revenue Service annually. The method used by the State Tax Assessor to determine the per acre valuation is defined by statute and on the basis of the surveys of average annual growth rates applicable in the State made from time to time by the United States Forest Service or by the Maine Forestry Bureau. The growth rate surveys must be reduced by the percentage discount factor prescribed by section 576-B of Title 36 (Taxation) of the Maine Revised Statutes to reflect the growth that can be extracted on a sustained basis. The categories of enrolled parcels, hardwood, softwood, mixed wood are determined by the licensed forester hired by the property owner.

The Tree Growth Tax Law offers a tax exemption to tracts of land greater than 10 acres which are being used for commercial harvesting in accordance with a Forest Management and Harvest Plan. In 2016, 110 parcels totaling 3,339 acres of forestland are enrolled in the Tree Growth Tax Program, making it the most utilized current use tax program in Topsham. Most of the land enrolled in this program is in the more rural northern and western sections of town.

The town assessor perceives a trend of stability for the future of Topsham's current use tax programs. A new parcel or two enroll in the program in any given year. Parcels are seldom withdrawn completely from classification, and it is more typical that a small portion of a parcel is withdraw for development as a single-family home. The future legislative trend is harder to read, but actual changes to the adopted statute have been minor throughout the last decade.

Economy

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of economic development within Topsham and the surrounding region.

This Chapter is organized into three sections:

1. Economic Overview
2. Labor Market
3. Priorities

ECONOMIC OVERVIEW

Economic Shifts

Looking statistically at the period of time between 2010 and 2016, Topsham's economy as measured by income and employment levels, has experienced overall moderate growth with expected declines occurring during the recession. In the region during this time period, several notable changes and investments have occurred. The most notable change has been the decommissioning of the 3,200-acre Naval Air Station Brunswick (NASB) in 2011 and the recruitment of new businesses to Brunswick Landing. In 2005, when the decision was made by the federal Base Closure and Realignment Commission to close the station, the NASB employed 5,000 sailors and civilians (Bangor Daily News, June 23, 2016). Now called Brunswick Landing, economic development efforts have resulted in significant new developments, the largest including Pathways of Maine, Wayfair, SaviLinx, Mölnlycke Health Care and Southern Maine Community College Midcoast Campus.

According to Midcoast Regional Redevelopment Authority (MRRA) Marketing and Communications Manager, more than 1,600 jobs have been created by redevelopment efforts at the former Navy properties in both Brunswick and Topsham. MRRA's strategic business attraction plan focuses on several target industries, based partly on the assets the Navy left and on the available talent and workforce, including: aerospace/aviation, biotech/biomed, composites/advanced materials manufacturing, Information Technology (IT), clean technology/renewables, and education. MRRA reports success in drawing businesses engaged in activities in each of its target industries.

With MRRA's portfolio of businesses, economic clusters have emerged, mostly within its targets. There are currently five composites businesses in Brunswick Landing's technology accelerator, TechPlace, and a shared composites layup facility is slated to open soon in order to attract more composites businesses. TechPlace also houses a shared bioproduction lab. The Brunswick Landing site has seven aerospace companies, including two specializing in Maintenance, Repair, and Overhaul (MRO) and one aircraft manufacturer. Biotech wasn't initially a target sector, but once Mölnlycke opened, other companies followed, and now MRRA is actively recruiting other biotech businesses.

A surprise cluster emerging has been food and beverage production. MRRA has attracted a brewery, a liquor distillery, a coffee roaster (in Topsham), a restaurant, and a spice wholesaler.

Other regional companies experiencing economic changes include:

- Bath Iron Works

  With approximately 6,000 employees total, BIW jobs represent about 82 percent of all private-sector shipbuilding jobs in the state in 2014, according to federal data (Bangor Daily News, September 16, 2016). According to Bangor Daily News, Maine's shipbuilding jobs represent an annual average wage of $64,340 (before taxes or deductions). That's

compared with an average wage of $41,548 for all payroll workers in Maine.

- Midcoast-Parkview Health

In 2015, Midcoast Hospital purchased the bankrupt Parkview Medical Center, merging to form Midcoast-Parkview Health. Midcoast subsequently invested $6.2 million to renovate the Parkview facilities resulting in expansion of primary care, cancer care, outpatient clinical services and community health and wellness programs. The added wellness center includes expanded medical oncology practice, fully integrated and aligned with MaineHealth/Maine Medical Center and Dana-Farber Cancer Institute of Boston (MaineBiz, September 14, 2016).

In Topsham proper,

- Expanded Lee Toyota and Nissan automobile dealerships were developed. Lee Auto Group is a Maine-based company.
- Environmental and engineering services companies, Stantec and Wright Pierce. Wright Pierce was founded in Topsham and now has offices in New England and Florida, while Stantec is an international company. Stantec has two offices in Topsham, which support an average of around 60 staff members, five administrators, college students as summer interns, and five or more seasonal technicians. Stantec's presence in Topsham has retained this approximate number of employees, fluctuating according to workload, approaching 75+ employees at times.
- Crooker Construction, LLC has experienced overall company growth, according to CEO Tom Sturgeon, and is currently looking to rezone property at their quarry to move its entire operations to one location and expand. If an operations move is completed, Crooker's operations would join the national scrap metal company, Grimmel in the Pejepscot Village off Route 196.
- Bowdoin Mill Island

In this same time period, the regional retail center in Topsham has both expanded and contracted. National big box retailers Bed, Bath and Beyond and Best Buy have closed. The shopping centers, which are predominantly leased by New England-based companies, have experienced steady, high levels of occupancy even during the recession. Commercial property owners and managers are keenly aware of the resiliency of local businesses during down economic cycles. Furthermore, owners recognize the need to be flexible to attract new tenants and uses to retail spaces. For example, a medical tenant has replaced Best Buy.

LABOR MARKET

Employment Numbers and Earnings

In 2016, an estimated 4,867 Topsham residents were employed, according to the Maine Department of Labor. This figure has risen by 3.7% since 2010, when Topsham's labor force totaled 4,692 workers. Comparatively, in 2010 the median household income was $65,071, and the median income for a family was $72,655 (ACS, 2016).

The median income for a household in Topsham in 2016 is $69,132, and the median income for a family is $78,429. Both numbers dipped during the recession. In 2010, the per capita income was $31,965, growing slightly to $33,339 in 2016 (ACS, 2016).

Of the 4,867 employed workers in Topsham in 2016, the largest percentage, about 29%, were employed in educational services, and health care and social assistance. The next largest percentages of Topsham workers, about 14%, were employed in retail trade, and 14% in manufacturing. The distribution of the top employers in Topsham has remained relatively the same since 2010, with 25% of the workforce employed in educational services, and health care and social assistance, 17% employed in retail, and 16% employed in manufacturing (Maine Department of Labor, 2016).

According to the American Community Survey (ACS), the employment sector with the smallest percentage of workers in 2016 in Topsham was in agriculture, forestry, fishing and hunting, and mining. ACS data shows 0 employees in 2016, while in 2015, 8 people (.17%) were employed in this sector. This data is an estimate which does not reflect the actual number of people employed in agriculture, forestry, fishing and hunting in Topsham. As listed in the Agriculture and Forest Resources chapter of this Inventory, there are currently 17 working farms in Topsham that have been identified through the Local Farms – Local Food initiative of the partnering regional land trusts. Town assessor data also supports the fact that there are people employed in this sector in Topsham. In 2016, 60 parcels of land totaling 2251 acres benefitted from the Farmland Tax Law, according to the Topsham's assessor's database. To benefit from this tax exemption, a property must be greater than 5 acres and generating an income of at least $2000 each year from farming activity.

Unemployment and Poverty

About 4.4% of families and 7.2% of the total population were below the poverty line (American Community Survey 5-Year Estimates). According to the US Department of Labor, Topsham's unemployment rate has dropped over recent years. In 2010, Topsham's unemployment rate was 6.2% and by 2016, its unemployment rate had dropped to 2.8%. The drop in unemployment in Topsham is reflective of a larger downward trend in unemployment in the county and state as well. In Sagadahoc County, the unemployment rate from 2010 to 2016 decreased from 6.5% to 3.0%. In Maine, the unemployment rate from 2010 to 2016 decreased as well, from 8.1% to 3.9% (US Dept. of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics (LAUS) program).

PRIORITIES

Priorities for Economic Development, Locally and Regionally

Topsham is prioritizing local and regional economic development in a number of ways. First, the town has the benefit of having an economic development corporation called Topsham Development Inc. (TDI). The corporation has an appointed board and is supported by the Town's Economic Development Director. Each year TDI

generates a strategic plan that summarizes its economic development priorities. The Town Selectmen provide oversight in TDI's appointment processes and have the ability to discharge the board, but the Selectmen do not shape the strategic plan or vote on Board matters.

Second, Topsham participates in the Midcoast Economic Development Council (MCEDD), a municipally-led economic and community development organization. MCEDD covers the midcoast region including all of Sagadahoc and Knox Counties, and the towns of Brunswick, Harpswell, Lincolnville, Searsmont, Belmont, Northport, and Wiscasset. MCEDD provides guidance and assistance to businesses and communities in efforts to stimulate the regional economy and spur job creation including:

- Developing and delivering a Comprehensive Economic Development Strategy (CEDS), which incorporates the economic, community and workforce development, education, transportation and environmental efforts and initiatives of the Midcoast region;
- Identifying, seeking and implementing opportunities that build the capacity of the region to successfully expand economic opportunity, competitiveness and strategic advantages;
- And partnering with communities, businesses, non-profits and other regional development organizations to support the delivery of those economic and community development programs and services that will further identified goals and objectives.

Third, though independent of the town, the Midcoast Regional Redevelopment Authority (MRRA) is a public municipal corporation by State law established in 2009 by the Maine State Legislature to implement the Reuse Master Plans for both NASB and Topsham's Annex as they have been set forth by both the Brunswick Local Redevelopment Authority (BLRA) and the Topsham Local Redevelopment Authority (TLRA). MRRA strives to manage the transition and redevelopment of these base properties from military to civilian uses in the form of high-quality jobs. MRRA has succeeded in achieving its short term goal of recovering civilian job losses in the primary impact community resulting from the base closure (700 jobs). MRRA is now progressing on its intermediate goal of recovering economic losses and total job losses in the primary impact community resulting from the base closure ($140 million in payroll) and its long-term goal of facilitating the maximum redevelopment of base properties (12,000+ jobs). MRRA is overseen by an 11-member board of trustees appointed by the Governor and confirmed by the legislature.

While the Town and other entities are prioritizing economic development, state funding support affects the ability for municipalities to work together and share resources. A new focus on what is already at play on the ground has been incorporated into a shift in the strategy of Comprehensive Economic Developments (CEDs) over the last seven to eight years.

A Developing Downtown

While Topsham has benefitted from its connection to downtown Brunswick, there is the potential and interest for the Lower Village to support more mixed-use development as a means to attract activity and community engagement. Properties located in the Lower Village have the possibility of generating high tax revenue per acre for the town, similar to properties located on Maine Street in Brunswick.

Regional Service Center

In the fourth quarter of 2016, Topsham hosted five of the top 25 private employers in Sagadahoc County. When the 2010 census was conducted, Topsham had a total employment of 3,673 jobs, of which 3,007 were held by non-residents. In addition to the draw Topsham attracts as a service center, the town's employment prospects are also supported by its close proximity to top paying regional employers.

Employment in Topsham relies greatly on service sector jobs, which represented 26.7% of total employment in 2010. As 80% of employees in the county are traveling to work by personal automobiles in 2015, this influx of daytime workers likely has the most impact on Topsham's street network.

Currently, Topsham sees increased seasonal activity due to its status as a regional service center. With more lodging properties such as hotels and inns, Topsham may benefit even more from the influx of seasonal population and visitations.

The Role of Home Occupation in the Community

Home occupations are welcome in Topsham and are acknowledged for their role as economic activity drivers. Nationwide, trends of employment are growing to include an increase of home occupations. In 2015, Topsham's workforce included approximately 6% home-based workers, slightly higher than the 5% estimate for home-based workers in Sagadahoc County and the State of Maine.

Performance Standards for Commercial/Industrial Compatible Development

Topsham is divided by a multitude of zoning districts that permit business and or industrial types of uses. Each district has specific objectives and permitted uses. The zones related to commercial and industrial development include:

- Commercial Corridor Zones

  Creates a tree-lined corridor with developments portraying smaller-scale commercial development than is found in the Mixed-Use Commercial (MUC) Zone.
- Rural Commercial Use Zones

  Protects the rural character of these areas while allowing a range of development to create a mixed-use, farmland and forested gateway to Topsham.
- Mixed-Use Limited Zones

  Protects the rural character of the Coastal Connector corridor while allowing a range of mixed residential

and commercial development to create an attractive gateway to Topsham.

- Mixed-Use Commercial Zones

Provides for a mixed-use district that can absorb new growth in the town.

- Industrial Zones

Provides areas for light and heavy manufacturing.

- Mixed-Use Commercial One Zone

Provides an area where high quality, mixed-use development can occur in a manner that is compatible with the existing natural environment while protecting adjacent residential areas.

- Business Park Zone

Provides an area for the development of a business park to accommodate the growth of office, research, service, light manufacturing, and similar uses in a well-planned environment with access to public water and sewer service and the arterial road system.

- Commercial Corridor Route 196 Zone

Provides an area to accommodate the growth of office, research, service, light manufacturing, and similar uses as an extension of the Business Park Zone while allowing small retail uses and motor vehicle sales and service in a way that maintains the livability of the area for existing residential uses.

- Limited Industrial Zone

Creates more flexibility for existing businesses, while minimizing the impact on the adjacent educational and residential uses with appropriate performance and dimensional standards.

- Business Park 2 Zone

Allows for a level of business, commercial and office development that will be compatible with the adjacent higher density residential zone and the adjacent civic uses.

- Residential 2 Zone

Allows limited commercial opportunities for the existing uses with frontage on Route 196, which addresses the commercial marketability of the parcels, and ensures that residential abutters are protected through appropriate development standards.

Currently, Topsham has specific performance standards for commercial and industrial developments. The performance standards for planned commercial developments establish goals of encouraging development patterns that make appropriate use of the area in an integrated design manner. Design standards emphasize a unified character that includes a pedestrian-friendly scale, with pedestrian and bicycle linkages where appropriate. The commercial development should invoke a sense of community through the use of common elements, such as signs, lighting, and furniture. The site plan should minimize direct access of driveways onto existing public roads and the principal roads within the development. The performance standards for industrial developments focus on minimizing and controlling the byproducts of such activity being released into the surrounding area. Engineering designs are required detailing the treatment of industrial waste, and the handling of industrial byproducts such as traffic congestion, noise, odor, heat, glare, air pollution, fire hazards, and safety hazards. Architectural designs are required to create unity within an area.

Public Facilities Needed to Support Economic Activity

A lack of broadband coverage in Topsham has come up as an ongoing issue, especially as certain areas in town are still out of reach of the broadband system. There has been sporadic interest in increasing broadband access or providing townwide wireless internet access, especially in the Lower Village. Research has been conducted to support these initiatives, but an affordable and effective solution has not yet been reached. As of now, there is free public internet access available at the town library and the town office.

How Topsham Uses its Unique Assets for Economic Growth

According to the Economic and Community Development Director, Topsham's ability to maximize its unique assets is a work in progress. Topsham is a commercial center, with focus on its regional retail center, and so must balance this asset with other economic interests in the more historic areas. Nationally, retailers are reducing both the number and size of their brick and mortar stores as online shopping for basic commodities increases. In addition, although visitors are coming to the town to access its retail center, they are not staying due to a lack of hotels and other accommodations. Provision of such amenities would help maximize economic generation from Topsham's role as a commercial center.

Over the years, trails and accessible recreational open spaces have increased. The Cathance River has sections of the river that reach whitewater class 3 - 4 during spring flow, drawing paddling enthusiasts. Historically, duck hunting camps were located along the Androscoggin River. Today, the town is not actively marketing its outdoor recreational amenities to promote economic growth.

Fiscal Capacity and Capital Investment Plan

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of the fiscal capacity within Topsham and the surrounding region.

This Chapter is organized into three sections:

1. Taxation and Revenue
2. Funding for Future Capital Investments
3. Regional Efforts in Shared Investments

TAXATION AND REVENUE

Topsham's most recent financial audit, performed on June 30, 2017, shows gains in the town's total net position, or the residual difference between assets and liabilities. In FY 17, Topsham reported total assets of $26,486,075 and total liabilities of $11,868,661. Topsham's total net position increased by $1,596,540, indicating a strong overall financial position for the year. The town department budgets were underspent by $1,027,553 and revenues were above budgeted estimates by $328,744, largely due to increases in excise taxes collected (Topsham Financial Audit Report, June 30 2017).

The assessed valuation of Topsham is the basis on which its mill rate is multiplied and property taxes are established. With a higher assessed valuation, property taxes can be lowered to raise the same amount of money for the town, provided there is a relatively stable tax rate. With a larger tax base, the town collects more money for its given tax rate, which helps fund capital investment. In 2017, Topsham's assessed valuation has reached $885,550,000, an increase of 10% since 2010. (Topsham Annual Report, 2017).

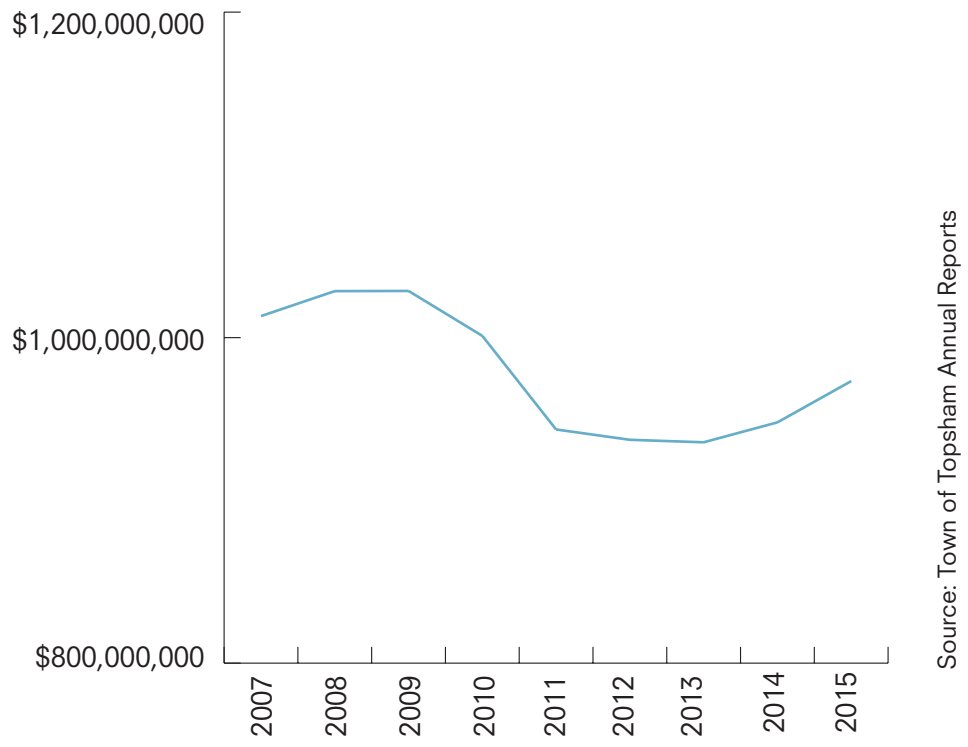
Between 2013 and 2017, Topsham's mill rate has slightly increased, from $16.21 in 2013 to $17.99 in 2017. This increase could be due to the corresponding decreases in municipal revenue sharing. Maine's state municipal revenue sharing program distributes revenue monthly to each municipality based on a formula whose variables include municipal populations, state valuations and tax assessments. According to Topsham's FY 17 financial audit, the town manager reports that historically, the State has paid 5% of income and sales tax revenues to communities. However, over the past six years, that percentage has been reduced to 2%. This can be seen by comparing revenue sharing from FY 08, totaling about $950,000 to FY 17, which totaled $451,839, a reduction of approximately 50% over those ten years. Had the State adhered to its historical level of funding, the revenue sharing total in FY 17 would have been approximately $1,126,000, or $677,000 more than was actually received. Over the past six years, Topsham taxpayers have had to make up this difference (Topsham Financial Audit Report, June 30, 2017).

FUNDING FOR FUTURE CAPITAL INVESTMENTS

Topsham's general fund has seen healthy growth, totaling $5,579,139 in FY 17, an increase of $608,717 from the previous year. The general fund's increase for this past year is primarily due to the operating transfer of the unexpended balance of this year's equipment bond fund to a separate capital projects fund, plus the unexpended portion of the current year's Tax Increment Financing (TIF) appropriation.

The town has an Economic Development (ED) fund which is growing with remaining revenues from the TIF districts. The ED fund has been growing steadily, and in 2017 contains nearly one million dollars. Some of this money will be going towards the relocation of public facilities and services and necessary repairs to the drainage system crossing under Main Street. In addition to its ED

Total Valuation Base, 2007-2015



fund, Topsham also has a reserve fund, which allows the town to set money aside for major projects over multiple years, instead of borrowing funds through bonds, which comes with added interest costs.

Tax Increment Financing Districts

Tax Increment Financing (TIF) is a flexible finance tool used by Topsham to leverage new property taxes generated by a specific project or projects within a defined geographic district. Any portion of the new taxes may be used to finance public or private projects for a defined period of time up to 30 years. Topsham has eight TIF districts, which provide ample proceeds that the town is then able to use to fund future capital investments. The eight TIF districts include two strictly municipal districts, one downtown district, and one affordable housing district. Topsham's TIF districts provide dedicated funds to the town, which are currently being used for the replacement to the Main Street drainage system, the demolition of the old fire station on Green Street, the Economic Development Department and associated costs, and portions of other departments and capital expenses.

Capital Investment Plan

The town has a 25-year Capital Investment Plan (CIP), which is a long-range budget for capital expenses, including vehicles, major equipment, roads, debt service and facilities maintenance. The parameter for this plan is set around the Fire Department's ladder truck, as it is currently the most substantial piece of town equipment. The oldest facility in town is the waste transfer station, which was constructed in the late 1980's. All other town facilities have been built in the last 17 years, and so are in good shape. Two bonds have been invoked for this CIP, and no future bonds are being planned. As the bonds dwindle over next nine years, Topsham will be able to maintain its budget. Currently, Topsham has an AA bond rating.

For capital investments, Topsham also actively applies for grant funding. In the past ten years, Topsham has collected several million dollars in grant money, which has gone to improvements ranging from the implementation of new bike paths to updates to the police department.

Impact Fees

In 2004, Topsham adopted a Traffic Impact Fee ordinance, which imposes an impact fee on land development requiring review under the Town's subdivision, site plan or conditional use regulations. These fees are used to provide new roads and related facilities necessitated by new development that impacts traffic in the Topsham Fair Mall Area. The imposition of impact fees is a preferred method of insuring that new development bears a proportionate share of the cost of capital investments necessary to accommodate such development.

Tier One Pine Tree Zone

Topsham is designated for Tier One Pine Tree Zone tax relief. The Pine Tree Development Zone Program (PTZ) offers eligible businesses the chance to greatly reduce, or virtually eliminate, state taxes for up to ten years when they create new, quality jobs in certain business sectors, or move existing jobs in those sectors to Maine. Currently, the eligible sectors are:

- Biotechnology
- Aquaculture and Marine Technology
- Composite Materials Technology
- Environmental Technology
- Advanced Technologies for Forestry and Agriculture
- Manufacturing and Precision Manufacturing
- Information Technology
- Financial Services

In the past ten years in Topsham, the Tier One Pine Tree Zone tax relief program has been utilized by Northern Pride Communications, a communications services business.

REGIONAL EFFORTS IN SHARED CAPITAL INVESTMENTS

The Town of Topsham has spoken in the past with neighboring communities about whether to consolidate or share public departments such as Police and Fire. There is particular interest in the feasibility of sharing fire services with the Town of Brunswick. However, due to differences in the structures of these departments, consolidation has not proven feasible. In Lisbon, public meetings are currently being held to vote on whether to bailout Lisbon Emergency Inc., the town's non-profit ambulance service. It is feasible that Topsham could provide such services to Lisbon, and the parameters to do so through a mutual aid framework have been laid out by Topsham's Town Manager. A similar mutual aid approach has been discussed between Topsham and Bowdoinham, but discrepancies over pricing have stalled the conversation.

Historic and Archaeological Resources

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of the historic and archaeological resources within Topsham.

This Chapter is organized into three sections:

1. Prehistoric and Historic Archaeological Resources
2. Historic Resources
3. Protective Measures

Topsham has achieved notable preservation of its classic New England village character and history. Beginning with its inhabitation by Native Peoples, Topsham gained significant archaeological sites along the banks of its rivers. Topsham's layout as a village began with the earliest permanent European settlement in and a continuous pattern of related development was sustained into the twentieth century.

Today, Topsham's character reflects the architectural styles of several periods that arose during the history of its development. Along the upper portion of Main Street there is a significant concentration of early 20th century residential development, with a smaller number of older buildings remaining. Upper Pleasant Street has the only concentration of post-WWII houses in the area, primarily on the west side of the street. Commercial buildings are concentrated on Main Street below the intersection of Elm and Winter streets. Lower Pleasant, Perkins, Elm, Green, Winter, and Summer streets have heavy concentrations of historic residential structures. Overall, the buildings in the village area retain a high degree of architectural integrity, with a few buildings on the edge of "non-contributing".

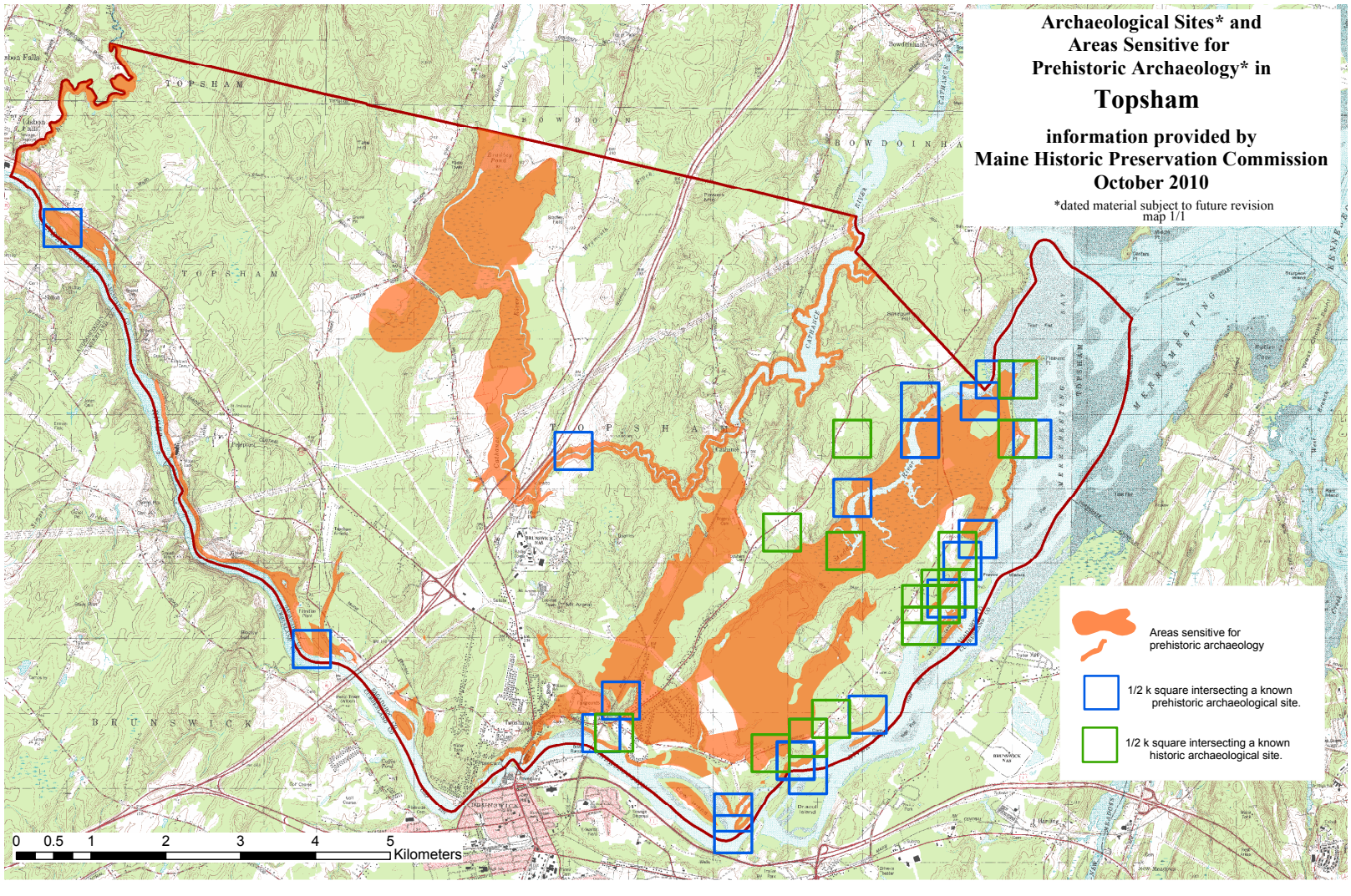
The majority of buildings determined to be non-contributing have been given that designation due to being built after the end of a determined period of significance (1784-1932). This period of significance was established by the Historic Resources Survey conducted in Topsham in 2010. 1784 is the built date of the oldest building in the village and 1932 is the year that the Frank J. Wood Bridge was built and Main Street was realigned off the Mill Island – causing the last major reorientation of the village street pattern in the historic period (more than 50 years ago).

Throughout this period of significance, there was a continuing pattern of development, with commercial uses concentrated along Main Street between Elm Street and the Mill Island, Significant industrial uses concentrated on the island and along the Granny Hole Stream mill race channel, and residential development in the remainder of the area. In the residential areas, there was a consistent pattern of the earliest buildings being spread some distance apart, with infill development increasing the density along the streets as time passed.

PREHISTORIC AND HISTORIC ARCHAEOLOGICAL RESOURCES

For centuries the town's waterways were its first highways; Native Americans and early European settlers used the nearby rivers, bays, oceans, and lakes as their major transportation corridors. Topsham's location at the juncture of two of the state's largest rivers (the Kennebec and Androscoggin rivers) as well as the smaller Cathance and Muddy River is the context in which the town's Native American history can be examined.

Prehistoric archaeological resources are largely Native American sites that predate 1700 – about the time of large-scale colonization by Europeans. Historic archaeological resources are largely European Colonial sites. It is difficult to 'see' the resources in the same



manner that one 'sees' a historic building, but a properly excavated archaeological site can speak volumes about the area's earliest residents.

Much work has been undertaken to understand the prehistoric and historic archeological resources present in Topsham.

In 2010, the Maine Historic Preservation Commission released a map overlaying areas sensitive for Prehistoric Archaeology with 1/2 km areas intersecting known prehistoric and historic archaeological sites. As of October 2015, the Maine Historic Preservation Commission has identified a total of twenty-three known historic archaeological sites in Topsham. Sites range from farmsteads to bridges to blacksmiths. The twenty-three sites are:

- Bay Bridge #1
- Mustard Farmstead
- Bay Bridge #2
- Gore/Purinton Homestead
- Lilac Foundation
- Bay Bridge #3
- Bay Bridge #4
- Bay Bridge #5
- Henderson
- Gray #1
- Hackett #1
- Pleasant Point #1
- Trafton Field
- Paine
- Hunter #1
- Hunter #2
- Hunter #3
- Ambrose
- Smith
- Hertlein
- D. Scribner Homestead
- Topsham Schoolhouse – Town Hall
- Cathance River Farmstead

HISTORIC RESOURCES

Historic resources as a rule date after European settlement (around 1700) and include villages, historic districts, buildings, cemeteries, roads, bridges, and other similar resources.

As of 2015, Maine Historic Preservation Commission documents seven districts, properties, or sites containing buildings, structures and/or objects placed on the National Register of Historic Places. The seven National Register listings include:

- The Pejepscot Paper Company, located on the mill island beside the Androscoggin River, and listed on the National Register in 1974.
- Topsham Historic District, spanning the area from the intersection of Main and Elm Streets along Elm Street to the railroad tracks. The District also reaches up portions of Pleasant Street, Perkins Street, Town Landing Road, and Green Street. It includes 58 homes

and buildings, ranging in style from Federal, Greek Revival, Italianate, Queen Ann, Colonial Revival, Eclectic, and Contemporary. In their many and varied styles, orientations to the street and each other, the buildings in the Topsham Historic District reflect the growth of the village as it occurred during its most important period of development.

- Hunter Site has a restricted address (to protect it from vandalism) and was listed on the Register in 1984.
- The Pejepscot Site also has a restricted address and was listed in 1987.
- The Purinton Family Farm, located at 65 Elm Street and was listed in 1989.
- The Topsham Fairgrounds Grandstand, which has been substantially updated, listed on the National Register in 1992.
- The Cathance Water Tower off of Cathance Road, listed on the National Register in 2001.

In addition to the seven National Register listings, numerous locally significant historic sites were identified in the 1992 Comprehensive Plan, including:

- Lover's Lane, one of Topsham's earliest roads, assumed to have been laid out sometime before 1764. Half of the original road is lost; one-quarter is a graded gravel road; and one-quarter is a two-wheeled path. Despite these changes, the look and feel of the original road is still very much in existence.
- First Parish Meeting House (demolished) on Middlesex Lane. While the building no longer exists, it is important because it was the first public building in Topsham and the locations of very few original meeting houses have been located statewide. In addition, the adjacent graveyard has many historically significant grave markers. Many of the grave markers are showing signs of age, sometimes caused by poorly repaired grave markers and sometimes by the effects of acid rain.
- The Cathance Mill area was the focus of significant interest for mill development back to 1717, there are no historical records indicating when mills were first constructed on this site. This is now the site of a public park.
- The Pejepscot Mills area is of particular interest for industrial historians and archaeologists. Much of the village still exists, which provides a good microcosm in which to study small mill village development. Mill workers' living conditions are an area of interest, given the number of boarding houses still standing and the archaeological remains of others.
- Pleasant Point Road was one of the first areas settled, and the early homes that have survived that period of development remain to be researched and documented. In addition, the Hunter Farm is significant primarily because the parcel is still intact from the water to the back lot, while many of the neighboring properties have been subdivided over the years.
- Further out on Foreside Road, the Randell-Hildreth House of 1800 is a transitional Georgian-Federal design, exhibiting high style Georgian quoins, a low hipped Federal roof, and an added Greek Revival doorway. It was listed on the National Register in 2004.
- The site of the Bisson Farm on Meadow Road clearly shows a substantial family farm. The acreage of the fields, the location of the farm buildings, and the clear pattern of use are reminders of the town's history. The original settler, William Wilson, built a hip-roof Georgian farmhouse that was moved to its current location early in the 19th century, and remodeled under the Greek Revival influence.
- The Topsham Fair, owned and operated by the Sagadahoc Agricultural Society, has been operating since 1855 and remains a significant annual social and recreational event. The Grandstand is listed on the National Register. The fair has a wide range of exhibits and livestock on display with awards to the best in each class. The fairground is used for numerous other activities throughout the year.

PROTECTIVE MEASURES

Local Historic Entities

Topsham hosts several entities, both municipally-appointed and non-profit, helping to ensure the protection of prehistoric, historical and archaeological resources. The current entities include:

- The Topsham Historical Society, incorporated as a non-profit corporation in April 2012, has served as a valuable resource in collecting and preserving historic information and artifacts as well as through hosting various forms of historical education and outreach. The Topsham Historical Society is currently composed of an eight-person Board of Trustees.
- The Pejepscot Historical Society, has been serving the Topsham/Brunswick region since 1888. Its mission is to collect, preserve, and interpret history within the Pejepscot region, which includes Topsham, Brunswick, and Harpswell. The Pejepscot Historical Society's collections include many Topsham documents and artifacts.
- The Town of Topsham History Committee, engaged in the process of archiving the Town's historic records. Members of the History Committee are appointed by the Town Selectmen.
- The Topsham Historic District Commission, composed of five residents of Topsham and is charged with:
  - Local informational and advisory functions:
    - Inventorying cultural resources in Topsham,
    - Recommending methods and procedures to preserve historic sites and properties owned or operated by the Town, and reviewing the alteration, relocation, or demolition of historic sites.
    - Reviewing development proposals that affect properties within the Historic Overlay District or that are on the National Register of Historic Places.

- Recommend ordinances and provide information to the Town.
- Advise other officials and departments regarding protection of cultural resources.
- Act as a local liaison on behalf of local government.
- Promote and conduct educational and interpretive programs.
- Cooperate with federal, state and local governments in objectives of historic preservation.
- Participate in conduct of land use and other planning processes.

- State Historic Preservation Commission advisory functions:
  - Review all proposed National Register nominations
- Review of applications for certificates of appropriateness:
  - Establish written guidelines for conservation of designated historic districts and designated landmarks.
  - Review applications for certificates of appropriateness.
  - Review all regulated activities affecting historic and prehistoric properties outside of the Town's historic overlay district.

Local Regulatory Measures

Topsham has local regulatory tools in place to assist with the preservation of historic and archaeological resources. One zoning district has been established in Topsham, the Historic Overlay District. Topsham's Historic Overlay District promotes the "educational, cultural, economic and general welfare of the public through the preservation and protection of buildings, sites, monuments, structures and areas of historic importance or interest…." The Historic Overlay District includes most of the older buildings in the heart of Topsham Village. In addition to regulatory measures, the town takes a flexible approach to allowing different ways to restore, rehab or renovate historic structures and provides assistance to property owners with the necessary paperwork.

- If a building, site, or structure is located in the Historic Overlay District, the town has historic preservation standards to review renovations and rehabilitation of structures within the district. To retain the historic character of the Village, major renovations or improvements to buildings within the Overlay District must apply to the Historic District Commission and receive a certificate of appropriateness.
- This certificate ensures that renovations or improvements are completed to The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings standards.
- In addition, Topsham's Building Code allows for flexibility when renovating and rehabilitating a historic structure.

Topsham participates in the Certified Local Government (CLG) program through the National Park Service. As one of ten municipalities with this distinction in the state of Maine, Topsham qualifies for technical support and matching grants to undertake a variety of projects, including studies, inventories, publications, and design guidelines. Topsham has taken advantage of its CLG status to inventory and preserve archaeological and historic resources in the community.

Local Incentives for Historic Protection

The town encourages the protection of historic properties and resources and takes proactive steps by:

- Maintaining a webpage that has links to many different documents and other websites that describe the historic resources in town as well as how to preserve and maintain them properly.
- Providing an adopted set of recommended guidelines for the proper maintenance of historic structures.
- Maintaining modest Historic District Commission permit fees for residential and non-residential application review.
- Directing property owners to various economic incentives available to historic preservation projects at the state and federal levels.
- Directing property owners to federal government rehabilitation tax credits for qualified projects and properties.

Housing

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of housing within Topsham.

This Chapter is organized into two sections:

1. Housing Stock
2. Housing Affordability

HOUSING STOCK

In 2015, Topsham had an estimated 4,175 housing units and a population of approximately 8,751 residents, of which three quarters of the housing are single-family house type. With a population that is only projected to increase to 8,924 residents by 2024, if this projection holds true, the current housing stock is sufficient in number. However, the question may be does Topsham have the right type of housing to support its future population. Or, should Topsham be encouraging a certain type of housing to induce population growth?

The most recent housing data collected in 2016 shows that housing ownership in Topsham has become unaffordable in the past few years. The table below demonstrates the discrepancy between the median sale price of a house in 2016 and the median household income.

The U.S. Department of Housing and Urban Development (HUD) considers households earning less than 80% of the area's median income to be low-income households. In Topsham, the threshold for low-income households would then be households earning less than $44,726. In 2016, 1,336 households in Topsham were unable to earn 80% of the median household income, about 35% of all households.

In terms of housing conditions, Topsham has a concentrated area of pre-civil war historic housing in addition to other historic homes located in the Heights and throughout town. Preservation and maintenance of historic homes is an ongoing and necessary activity to ensure integrity of older homes.

About 74% of housing units in Topsham are single-family units. 402 units are multi-family, making up most of the remaining quarter of housing units. This does not include

	Topsham	Bath	Brunswick	Durham	Freeport
Median Household Income	$55,908	$37,893	$54,971	$63,054	$70,714
Affordable at Median Income	$190,232	$122,844	$194,195	$216,334	$245,930
Income Needed for Median Price	$64,657	$46,138	$60,153	$70,608	$90,574
Median House Sale Price	$220,000	$149,574	$212,500	$242,250	$315,000
Households Unable to Afford Median Income	57.7%	56.8%	54.3%	58.7%	64.2%

group- or assisted-care facilities. Aside from single- and multi-family units there are also six mobile home parks in Topsham with a potential unit count of 195, though not all pad sites are currently occupied.

New Construction

Since 2000, building permit data shows that approximately 900 new housing units have been built to date, representing almost 22% of Topsham's overall housing stock. Construction of new housing peaked in 2004 and 2005, followed by slowing and significant decline coinciding with the housing market crash in 2009. Since 2009, the number of new units built per year has been relatively stable at between 20 – 35 permits per year, with a spike of 47 permits in 2015, possibly coinciding with buyers returning to the ownership market. The majority of permits issued in the past 10 years have been for single family housing, with the exception of River Landing, constructed in 2015, creating 36 rental units and Oak Hill, constructed in 2017 and anticipated to create 68 condominium units.

HOUSING AFFORDABILITY

Diversity of Choice

Over the past two decades, the Highlands and Highland Green have created more than 500 units of housing targeted to a specific demographic. The Highlands is a retirement community with 350 living units that are owned and rented. Highland Green is an active adult lifestyle community for residents ages 55 years and older. Highland Green currently has 190 custom built single family houses. Both retirement facilities maintain a relationship and continue to share resources. Highland Green has capacity in its master plan to create 369 additional units comprised of cottages, lodge/assisted living buildings, and multi-unit apartments.

Pleasant Woods is an eight-unit development owned and operated by the Topsham Housing Authority, built for working families on a previously vacant 2.7-acre parcel of land. The housing development, which includes a barn-like section, was built with design considerations aimed at blending the housing with the surrounding character of the neighborhood, a consideration that helps destigmatize low- and moderate-income residents. The eight units have been filled and Pleasant Woods now has a waiting list of at least a dozen applicants. Two of Pleasant Wood's eight units are subsidized and will house previously homeless families.

Oak Hill is a new community of condominiums, located at the end of Granite Hill Drive, which was constructed beginning in 2017 and has sold a majority of its anticipated 68 condominium units. The housing is connected and ranges between one and a half to two story condominiums in colonial, saltbox, and cape styles. Currently, Topsham has three low income housing apartment complexes limited to seniors and comprising 110 units in total. Most of the affordable housing options in Topsham are income-based. According to United States Department of Housing and Urban Development (HUD) data, enlisting on a waiting list for affordable housing in Topsham lasts for an average of 43 months.

The three affordable apartment complexes in Topsham include:

- Barrons Hill Apartments I

A senior apartment complex housing tenants who are 62 years of age and older, and/or disabled. Barrons Hill consists of 32 units, all of which are assisted through Section 8 programs.

- Westrum House

A senior apartment complex offering 27 units of affordable housing to tenants 62 years of age and older. Westrum House property was built using funding through the U.S. Department of Housing and Urban Development (HUD's) Section 202 Supportive Housing for the Elderly program. Because of this, residency is restricted to tenants who earn 50% of the Area Median Income (AMI) or less. As a rental assistance program, Westrum House sets tenant contribution to 30% of their income.

- Whispering Pines

An affordable housing complex comprised of 50 units. Whispering Pines has received funding in part through the Section 515 Rural Rental Housing (Section 515) program. Whispering Pines offers eligibility to Very low, low, and moderate income families, elderly persons, and persons with disabilities. Persons or families living in substandard housing have priority for tenancy.

Affordability Classification

Affordable housing for homeowners is defined by Maine's Growth Management Act as housing in which the mortgage payment, taxes, insurance, condominium fees, and utilities do not exceed 33% of the homeowner's gross income. For renters, the standard is 30% of gross income for rent and utilities. Provision of affordable housing provides benefits to a community, aside from the fundamental need to support livable conditions for disadvantaged populations. Population diversity can only stand to benefit the vibrancy and integration of a town.

Local Housing Assistance

The town of Topsham encourages the development of affordable housing through density bonuses embedded in its zoning ordinance. The performance standard for affordable housing developments was added to Topsham's zoning in 2006 and allows for a bonus density for subdivisions that provide affordable units. In order to qualify for a density bonus, the affordable units to be provided must meet specific requirements outlined in the affordable housing performance standard. The performance standard for elderly housing includes a provision allowing density bonuses to elderly housing projects that maintain income-based affordability levels.

The Topsham Housing Authority (THA) provides rental assistance to needy families in the community. It is directed by a board of commissioners that is appointed by the Select Board. The THA does not have any staff. Rather, it contracts with the Brunswick Housing Authority (BHA) to provide property management and development services.

The Topsham Housing Authority currently owns and

manages 15 units of affordable housing in Topsham. The 15 units were financed with various grants and loans and allows THA to set rents below the fair market rate. These units range in size from two-bedroom to three-bedrooms and allow the THA to serve the elderly and/or disabled and working families. Seven of the units were acquisition or rehab and the other eight are new construction. The waiting list for THA units currently totals approximately 80 households.

In addition, the Topsham Housing Authority works with the Brunswick Housing Authority in administering a federal Housing Choice Voucher program in the area, which includes approximately 50 families in Topsham.

There is more demand for affordable housing in the area than the Brunswick Housing Authority has vouchers to grant. According to the BHA, there is a waiting list of approximately 380 people at any given time on the BHA voucher waiting list.

Substandard Housing
Census defined "Substandard Housing" represents, 46 units lacking complete kitchen facilities, 7 units lacking complete plumbing facilities, and 53 units having no telephone service available to them.

Relative to Topsham's total count of 3,778 occupied housing units in 2015, the numbers of substandard housing units are low. This data is self-reported data.

Marine Resources

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of marine resources within Topsham and the surrounding region.

This Chapter is organized into two sections:

1. Water Bodies
2. Access

WATER BODIES

Topsham, though primarily inland, features several miles of shoreline along Merrymeeting Bay and is home to tidal areas along the Muddy River, the Cathance River, and the Androscoggin River. For some time, Topsham's shoreline has been used for recreational, and no longer for commercial, purposes. Dedicated hunters across the nation are familiar with the waterfowl hunting in the area, and sturgeon, herring, smelt, salmon, alewives, shad, and sea bass attract sports fishermen throughout the year. Hikers, sightseers, and recreational boaters enjoy the impressive views and undeveloped shorelines of the Bay.

Merrymeeting Bay

Merrymeeting Bay is the largest freshwater tidal bay on the eastern seaboard north of Chesapeake Bay, and the largest staging ground for migratory waterfowl in the northeast. It is formed by the confluence of six rivers, including Maine's second largest (the Kennebec) and third largest (the Androscoggin). These two rivers alone drain a combined 9,320 square miles – an area that is approximately the size of Vermont. Other minor rivers flowing into the bay include the Cathance, Eastern, Muddy, and Abagadasset.

Europeans first visited Merrymeeting Bay in the early 1600s. Since then, the Bay has been used for various industries including fishing, shipbuilding, ice cutting, transporting lumber, and recreation Commercial activity on the Bay has largely disappeared. An eel fishery is still active in the Bay, but very little information has been collected on this activity.

Merrymeeting Bay is a precious and productive ecosystem that has been left to naturally restore itself following the negative effects of damming and pollution in the industrial era. It is the only estuary providing spawning and nursery habitat for all diadromous fish species in the Gulf of Maine, and it is home to a number of rare and endangered plant, and animal species including Parker's pipewort, stiff arrowhead, shortnosed sturgeon, Atlantic salmon and a recovering bald eagle population; the second largest in Maine. Ironically, the polluted waters of the Bay discouraged development, which led to the natural restoration of its waters and surrounding land area. In addition, organizations and researchers that recognize the significance of the Bay have taken impressive efforts to further its preservation, protection and improvement. One such organization, Friends of Merrymeeting Bay (FOMB), formed in 1975 to organize a holistic effort to biologically and culturally protect the Bay by combining tools of research, education, advocacy, and land conservation. Currently, FOMB is composed of approximately 375 members, one staff person, and 125 volunteers contributing over 3,000 hours of service annually.

Lower Androscoggin River

The Androscoggin River flows between Topsham and Brunswick to Merrymeeting Bay, where it meets the Kennebec River. The Androscoggin basin totals 3,450 square miles (80% of which is in Maine). The river winds 200 miles inland to its headwaters in Umbagog Lake. The lowlands bounding the river below Topsham Village

are routinely flooded during spring runoff, resulting in a shoreline that is mostly undeveloped outside of the Pleasant Point area.

ACCESS

Harbor Areas, Moorings, Water-Dependent Uses

Topsham has no formal harbor or mooring areas although boats do moor in the river between the Topsham and Brunswick shores. Much of the Topsham shoreline is undeveloped, although a portion (particularly in the Pleasant Point area) has dense residential development. The primary water-dependent development is a seasonal smelt fishing camp which provides access for ice-fishing during the winter and early spring on the Androscoggin River.

All-tide boat access to the Androscoggin and Merrymeeting Bay is available regionally. Brunswick has two access points, Bowdoinham has two access points, and Bath has one access point. Developing access to Merrymeeting Bay from Topsham's shoreline would at best be difficult to provide. The Bay's shallow depths and large tide range (5 feet) would require that an access point reach out into the Bay a considerable distance.

Through the town's planning efforts, including the 2005 Comprehensive Plan, the public was able to communicate a desire for more public gathering spaces, parks, and waterfront access. To acknowledge this priority, the town partnered with Wright-Pierce to conduct a Lower Village Waterfront Access Study in 2011. The study engaged the community and key public stakeholders to identify the constraints and opportunities to future decision making regarding waterfront access design efforts. Through the community input process, the plan identified the need for hand carry boat access to the river, while providing some public gathering space or area for a park. The plan identified the parcel that the Town owns along Green Street as most desirable for park development. However, utilization of the Green Street parcel required acquisition of additional lands or an easement from one or more of the abutting landowners who control waterfront access in the area.

Natural Resources

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of natural resources within Topsham and the surrounding region.

This Chapter is organized into five sections:

1. Surface Waters
2. Groundwater
3. Soils
4. High Value Plant and Animal Habitat
5. Implications

Topsham is fortunate to host a variety of topographies that provide the Town with an abundance of natural resources. Long ravines and steep hills are prominent west of the Meadow Cross Road. The center of town is characterized by a large lowland area around Bradley Pond and the Bisson Farm. Long ridges are punctuated by the Cathance, Muddy, and Androscoggin Rivers in eastern Topsham.

The town recognizes that natural resources, though widespread, are finite. The pattern and pace of development could alter the abundance of resources by damaging habitat corridors and blocks, or by introducing exotic and invasive species. The cumulative impact of small changes, both local and regional, can add up to a significant impact. There are several local regulatory measures (described later) being used to ensure the protection of Topsham's critical and important natural resources.

SURFACE WATERS

Tumbling creeks, wide rivers, waterfalls, and tidal marshes generally characterize the diversity of Topsham's water resources. Each water resource fills a different role in the town's natural environment.

Little River

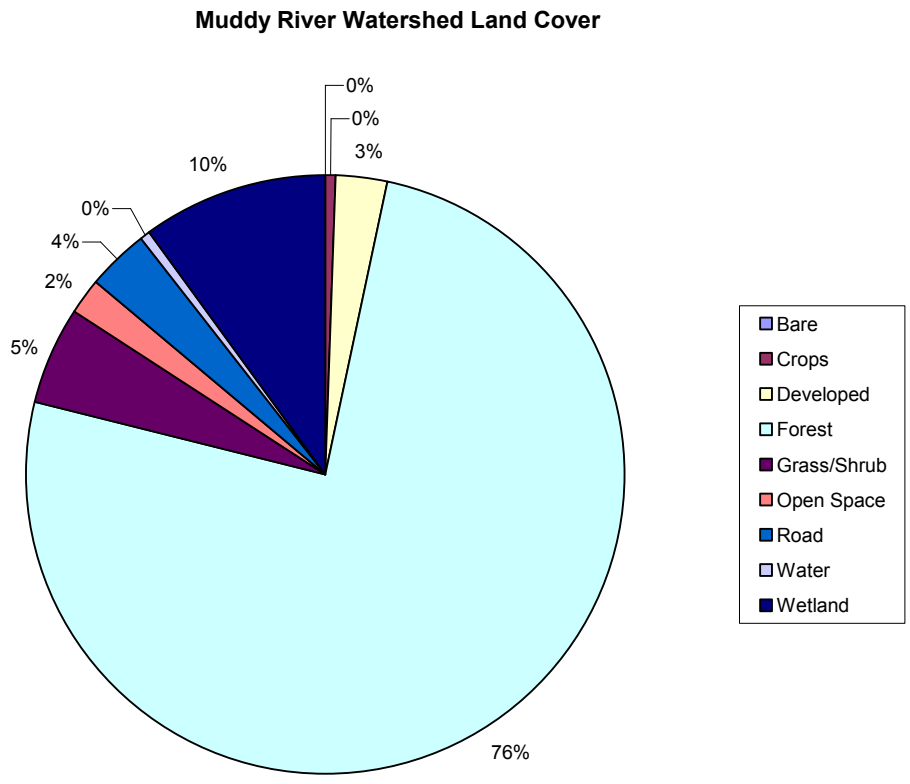
The Little River forms the town's boundary with Lisbon and is easily visible from Route 196 as it tumbles towards the Androscoggin River. The river's watershed includes rural areas of Topsham, Lisbon, and Bowdoin. The Little River watershed has approximately 17,500 acres, of which 82% is forest, 8% is grassland, 5% is urban and 2% cropland. The remaining watershed (3%) is made up of farmsteads, industrial/ mining sites, roads/infrastructure and open water. According to Mike Brown, Department of Marine Resources, numerous springs exist throughout the watershed which helps provide low temperature base flows in the Little River, enabling a highly valued coldwater fishery.

The Maine Department of Environmental Protection (MDEP) considers the water in the Little River 'unimpaired,' which means the river can support wildlife habitat in its natural state.

Muddy River

This appropriately named river, part of the Merrymeeting Bay ecosystem, drains an approximately 3.4 square mile area of northeast Topsham. The Muddy River watershed lies wholly within the Topsham town boundaries. This small watershed is an integral part of the Merrymeeting Bay ecosystem, and has been cited as a high priority area in the North American Waterfowl Management Plan.

The Muddy River landcover analysis reveals an extensive riverine and emergent wetlands along the river, with some upland forest. The breakdown of landcover types is found below.



Of particular note and importance:

- Nearly the entire watershed is identified as high value tidal wading and waterfowl habitat
- The watershed is enveloped by a statewide significant focus area
- Locally, the watershed is identified as a high priority conservation area

Extensive conservation efforts by the Nature Conservancy and Maine Department of Inland Fisheries and Wildlife (MDIF&W) have occurred along the Muddy River.

Androscoggin River

Of all of the rivers in Topsham, the Androscoggin River is what conjures images of the Town of Topsham, both in a historical sense, and as a "backbone" for the community's identity today. The banks of the Androscoggin River stretch over 15 miles in Topsham. As the river rolls through, it passes over two substantial dams, and quickly becomes "delta" like in its tidal portion where it eventually blends into Merrymeeting Bay. The Androscoggin's headwaters are in New Hampshire, and it has historically been heavily used for transportation and manufacturing; there are no fewer than 10 major dams on the Androscoggin in Maine as it flows through communities like Rumford, Livermore, Lewiston, Lisbon, and Topsham.

MDEP considers the Androscoggin a class C river – the lowest water quality classification. This low classification is largely the result of the river's industrial past. Technological advances and water pollution regulations have improved the water quality significantly since the Clean Water Act of the (CWA) of the early 1970s. The intense use that industry, agriculture, and communities place on this water body continue to have impacts on water quality.

The Androscoggin forms Topsham's southern border with Brunswick. Its watershed roughly parallels the river's course and includes many of Topsham's more developed areas.

Above the village, steep banks and the Brunswick – Lewiston railroad have historically limited development pressure along the immediate shoreline. Below the village, spring flooding cycles and poor soils for development have discouraged development along the riverbank.

Development along some of the Androscoggin's tributaries could threaten the ecology of those smaller watersheds. Impervious surfaces (from buildings, roads, and large parking lots) in the Topsham Fair Mall area could decrease base flow in the river by reducing the amount of rain and snow melt that penetrates the soil. Nonpoint source pollutants (low-level pollution from surface runoff) could impair water quality and wildlife in the smaller rivers. Nonpoint source (NPS) pollution is a special concern in the Muddy River watershed, which is the largest tributary of the Androscoggin in Topsham.

The Topsham Fair Mall Stream is a small stream in a heavily developed area of Topsham. The 1.4 mile long stream flows through an area of high density commercial development and a section of Route 295, with small areas of residential development at the upper and lower edges of the watershed. The headwaters originate in the northeastern border of the watershed near Route 196 (Lewiston Road), and the stream flows southwest to its confluence with the Androscoggin River. Despite the impairments associated with development, data indicate that the stream is well oxygenated and groundwater recharge keeps temperatures low enough to make the stream a potentially valuable refuge for coldwater fish from the Androscoggin River. In addition, the stream's

location in a high traffic area suggests that the stream offers potential recreational enjoyment for a large number of residents, employees, and other visitors. In 2014 the Town conducted a watershed based plan that is currently being funded and implemented with assistance from the Maine DEP. The Maine Department of Environmental Protection has identified the Topsham Fair Mall Stream as an "urban-impaired watershed". A development in an "urban-impaired watershed" must obtain a state stormwater permit and is required to take action to improve the water quality of the stream. The state requirements encourage the development of local watershed management plans for urban-impaired watersheds.

The industrial past of the Androscoggin River is carved into Topsham's history, and has left its mark on the river's ecological integrity. Often cited as one of Maine's most degraded rivers, the Androscoggin is beginning a slow "healing" process. As for current industrial uses, there exists the Pejepscot Hydro station and Grimmell Industries at the site of the old Pejepscot Village. The Bowdoin Mill is a renovated relic that sits on the bank of the river and is Topsham's most recognized landmark. It is no longer an industrial site; instead it is the epicenter for business activity in Topsham's Lower Village.

Bowdoin College Professor John Lichter has been studying the effects of land use on the Androscoggin River and the Merrymeeting Bay ecosystem for years. The publication, "The Ecological Collapse and Partial Recovery of a Freshwater Tidal Ecosystem," authored by Lichter, describes the historical abundance of anadromous fish, and migratory waterfowl species falling victim to the impaired habitat due to industrial use and municipal wastes that degraded this ecosystem to a "collapsed" state. It goes on to report, "…the legacies of past human disturbance continue to impact this important ecosystem. Merrymeeting Bay is permanently shallower, its anadromous fish runs are vestiges of their former abundances, toxic substances remain in its biota and sediments, and it continues to receive excess nutrients from industrial and municipal sources. These legacies are varied and profound. Whereas some physical, chemical, and biological properties recovered rapidly with cessation of the disturbance, others will require considerable more time or may never fully recover."[1]

Conserved lands along the Androscoggin include efforts between the Maine Department of Inland Fisheries and Wildlife (MDIF&W) as well as the Brunswick Topsham Land Trust (BTLT). The Town maintains two properties along the tidal portion of the river, where there are the Town Library and Parks & Recreation Fields. There are currently no officially protected shorefront lands above the Brunswick Hydro Dam. The only public access to the Androscoggin in Topsham is along the Lisbon Falls and Topsham boundary, where a State maintained boat launch exists. Other access sites are all in Brunswick.

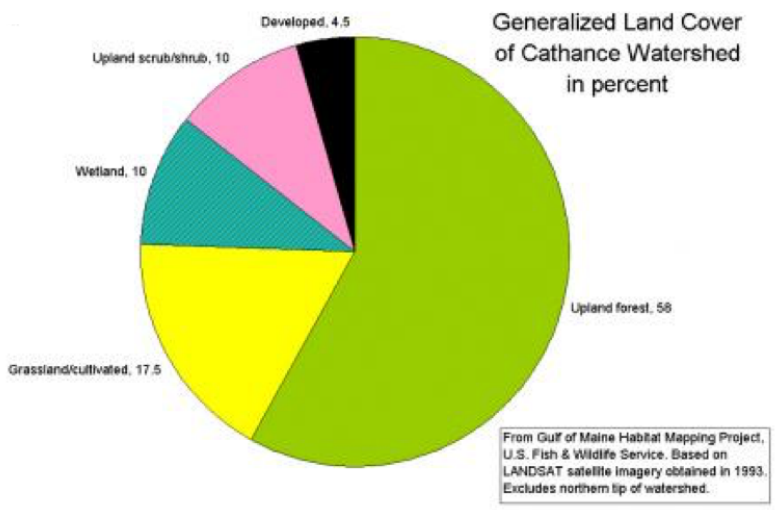
The tidal portion of the Androscoggin offers the most extensive fisheries in Topsham. This provides significant recreational and economic opportunities. Coastal fisheries in the Androscoggin include American eels, sea-run brook trout, shad, blue back herring, alewives, northern pike, and striped bass. Atlantic salmon have been identified entering the fish ladder at the Brunswick Hydro Dam Fish Ladder in the past, but in very small numbers. The Maine Department of Marine Resources operates a salmon trap on the Androscoggin River. As of November 2017, the count of returning salmon was zero[2]. Topsham does not have historic spawning areas for salmon, as the cold-water streams where spawning occurs are found in the headwater areas of the Androscoggin. That being said, land use decisions in Topsham have effects of the fisheries population of these anadromous fish, as cold-water Topsham tributaries serve as refuges during upstream migration.

Cathance River

The Cathance River flows from Bradley Pond for 10 miles and into Merrymeeting Bay. The Cathance and Androscoggin watersheds contain most of Topsham. The upper third of the Cathance meanders through lowlands from Bradley Pond to Route 201 and is bounded by agricultural lands. The middle third has steep banks and is relatively inaccessible between Route 201 and the falls at Cathance Road. The lower third is tidal to Merrymeeting Bay and has a steep and relatively inaccessible shoreline.

The MDEP considers this an 'unimpaired' water body, although nonpoint source pollutants from residences and agricultural practices threaten the Cathance River's water quality.

The Topsham Conservation Commission considers the Cathance River Corridor one of the Town's highest priority conservation areas. Not only is conservation of the area's ecological integrity a high priority, but the traditional recreational uses that occur along the river (hunting, fishing, paddling, swimming, hiking, etc.) are viewed as contributing to the quality of life. The Conservation Commission has worked with regional partners to assist in conserving high value conservation areas along the river.



1 Ecological Collapse and Partial Recovery of a Freshwater Tidal Ecosystem, The Northeastern Naturalist, 2006 by Lichter, John, Caron, Heather, Pasakarnis, Timothy S, Rodgers, Sarah L, Et al.

2 Maine Atlantic Salmon Commission Website: http://www.maine.gov/dmr/science-research/searun/programs/trapcounts.html

Bradley Pond

Bradley Pond, a 34-acre impoundment of the Cathance River located near its headwaters, does not have the assimilative capacity that the river has and is potentially sensitive to phosphorous loading – a nonpoint source pollutant associated with agriculture and residential development. The pond currently has a water quality classification of GPA, which means it is, "suitable for the designated uses of drinking water after disinfection, recreation in and on the water, fishing, agriculture, industrial process and cooling water supply, hydroelectric power generation, navigation and as habitat for fish and other aquatic life" (Maine State Statutes, Title 38, §465). There is limited potential for activities that would have a detrimental impact on the water quality of the pond since the pond is entirely surrounded by wetlands and conservation land.

Despite the tremendous amount of surface water that makes Topsham a virtual island, steep banks and tidal marshes occupy much of the town's shoreline, limiting public accessibility. Inaccessibility has helped maintain the quality of the surface waters from the direct impacts of development, but indirect impacts to the surface waters could impair the water quality in the town's surface waters.

Zoning Protections

Streams, both perennial and intermittent, are another important resource. Topsham's shoreland zoning was expanded in 2008 to include Maine's Natural Resources Protection Act (NRPA) definition of a stream. This expansion allows for a broader inclusion of water bodies, such as first order streams, and incorporates associated wetlands to the definition of a stream. While this was being undertaken, the Town had aerial images taken to capture its hydrological features. This produced more precise data than had been previously available.

Topsham treats shoreland zoning as a series of overlay districts that apply protections in addition to the underlying zoning requirements. The overlay districts include the following:

- Stream Protection
- Resource Protection
- Limited Residential
- Limited Commercial
- General Development

Wetlands

Wetlands are an integral part of the hydrologic network that includes lakes, ponds, streams, brooks and estuaries. The ecological and economic benefits of wetlands can be grouped into three categories:

- Biological benefits include fish, shellfish and wildlife habitat (feeding, breeding, nesting, and cover) and travel corridors.
- Water quality benefits include groundwater recharge and discharge, stream flow maintenance, flood prevention, water quality maintenance, and shoreline protection from erosion.
- Human benefits include recreational uses such as hunting birding, fishing, boating, and hiking. Wetlands also provide important aesthetic and open space values to communities.

In Topsham, more than one-third of the town is covered by hydric soils – an important determinant for the presence of wetlands.

Topsham has two large concentrations of wetlands. The first is in the Muddy River/Princes Point area. There are a significant number of multi-function wetlands in this area, mostly associated with the extensive tidal marshes in the Muddy and Androscoggin Rivers. There are also small wetlands and vernal pools located throughout the Town, including beside the Mt. Ararat High School.

The second area is along the Cathance River corridor which includes a large wetland complex extending from the Route 201 corridor to Meadow Cross Road and a concentration of wetlands along the Lower Cathance.

Wetlands are some of the most important and vulnerable habitats in Topsham. Land use activities such as draining, clearing, filling, and waste disposal can significantly alter or destroy the functional ability of wetlands. Activities in the uplands surrounding wetlands can be equally as destructive to wetlands and can degrade them to the point where they are no longer able to function.

Wetlands are currently protected by the town's Shoreland Zoning Overlay District. This district provides a greater level of protection within 250 feet of freshwater wetlands (greater than 10 acres) or marine wetlands.

Merrymeeting Bay

Merrymeeting Bay is the largest freshwater tidal ecosystem north of Chesapeake Bay. The bay is formed by the confluence of six rivers (three of which are found in Topsham). Merrymeeting Bay, its tributaries, and its associated rivers are among the most important waterfowl staging areas along the Atlantic Flyway, and also provide vital spawning and nursery habitat for anadromous fish. This prime habitat area, located within the Kennebec Estuary which is defined by Beginning with Habitat (BwH) as a "Focus Area of Statewide Ecological Significance", offers diverse plant and animal life:

- The Bay is an important feeding and resting area for both spring and fall migrating waterfowl. Black Ducks, Mallards, Green-Winged Teal, Blue-Winged Teal, Canada Geese and Mergansers occur in the

Bay in very large numbers. Goldeneyes, Buffleheads, Scaup and other waterfowl are also found in smaller numbers.

- Resident Great Blue Herons and other wading birds frequently feed in the area and the Great Black-Backed Gulls, Herring Gulls, Double-Crested Cormorants and other seabirds have been found in the Bay throughout the years.
- A diverse continuum of vegetation zones, including arrowhead/pickerel weed, wild rice beds, eel grass, alder swamps, and bordering red maple wetlands can be found around the Bay.
- Shad, alewives and striped bass spawn are reared in the Bay.
- Many mammals and reptiles utilize the Bay as a travel corridor.

Increases in the types and intensities of land use activities can negatively impact coastal wildlife by direct or indirect changes in water quantity and habitat availability.

GROUNDWATER

Groundwater is water below the water table that saturates soil and crevices in bedrock. Groundwater is recharged by precipitation, which percolates into the ground and flows at very slow rates downhill. Rural residences rely on wells that pump groundwater to the surface to be used for potable water. Areas of the town served by the public water system rely on groundwater pumped through a series of much larger wells located in Topsham and Brunswick.

When this groundwater can be pumped to the surface fast enough to be economically useful, the saturated soil or bedrock is called an aquifer. An economically viable aquifer must be able to hold a large volume of water, which must be able to flow easily.

Topsham has bedrock aquifers and sand and gravel aquifers, both common to the state of Maine. Bedrock aquifers store water in cracks and fractures in the bedrock. Most aquifers are relatively small (about 10 gallons per minute), but large enough to supply individual households in rural Topsham. Because the bedrock fractures tend to be interconnected, bedrock aquifers are particularly susceptible to contamination. Sand and gravel aquifers store water in the pores between the grains of sand and gravel. Such aquifers can hold large volumes of water and can transport this water quickly, making them the most valuable groundwater aquifers with the most abundant yields.

In Topsham, most high-yielding sand and gravel aquifers are found in the Androscoggin River watershed and the Adams-Hinckley-Ninigret soil association.

Because much of the groundwater is recharged by rain and snowmelt, aquifers can be compromised in two significant ways:

1. Pollution that enters the ground can seriously impair an aquifer. Once the pollutants are in groundwater, they are very difficult to remove. For this reason pollution sources around significant aquifers must be closely monitored. Some residents are supplied by well water. Property owners are responsible for non-mandated testing for contaminants (including arsenic and bacteria) which may be found in area wells. Even though these contaminants may be natural, they are a problem for potable water in the Town.
2. Depletion of the amount of groundwater available when the amount of recharge into an aquifer is reduced by creating too much impervious surface (buildings, roads, parking lots) or diverted.

The town enacted an Aquifer Protection Overlay District in the 1990s to ensure the preservation of pure, clean supplies of groundwater from land uses and activities which might otherwise degrade or destroy the use of aquifers for public and private drinking water supplies.

SOILS

The health of Topsham's soils is critical to the functioning of wetlands and to the health of other important ecological areas and the habitats they host. The town is comprised of four major soil associations

- The Hollis-Sutton-Buxton association is shallow to deep, typically featuring moderately to well drained soils at the top of low hills and ridges. This association covers the tops of Mt. Ararat, Tate Hill, and other long ridges. These soils support naturally wooded areas in Topsham. Septic systems have serious limitations in these soils, and supplying drinking water can be a problem .
- The Scantic-Leicester-Scarboro association is deep soil that is poorly drained. These soils are generally wet, not well suited for development, and important places for diverse wetland habitats. Farming occurs on these soils, but it is generally for hay production or grazing. These soils line the lowlands in the Cathance River watershed and the Muddy River watershed.
- The Buxton-Hartland-Belgrade association is deep, moderately to welldrained soil. These soils tend to be on steeper slopes, although flat areas are relatively common. This association is located above the Muddy and lower Cathance River estuaries, along the lower Androscoggin shore, and in west Topsham near the Little River.
- The Adams-Hinckley-Ninigret association is deep and well-drained soil. The topography of these soils varies widely from steep slopes to gentle fields. Much of Topsham's developed land is on this soil – the Village, Topsham Fair Mall, Routes 201 and 196, and Foreside Road.

Outside of the Brunswick Sewer District area, septic systems are required to support new development. Ongoing advances in wastewater treatment technologies will support development in areas traditionally lacking good soils.

Large Undeveloped Blocks of Land

Large undeveloped blocks of land provide contiguous habitat areas for animals with large home ranges, such as bear, fisher, and moose. Undeveloped blocks of land

greater than 2,500 acres can host a full complement of species in a pristine Maine environment, whereas small blocks of land (less than 250 acres) tend to support species more typical of a suburban environment.

Topsham has several large undeveloped blocks of land, which are spread out across the northern half of the community into Bowdoin and Bowdoinham. The undeveloped blocks of land in Topsham are divided by larger transportation corridors such as I-95, Route 201, and Route 24, causing habitat fragmentation. The largest block, which encompasses more than 7,000 acres, is located between the Meadow Cross, Route 196, Lisbon Falls, and Route 125. Other large blocks are located around the Bradley Pond, the Upper and Lower Cathance River, and the Muddy River.

As development occurs in rural Topsham, large blocks of undeveloped land are going to be pressured. Future development can minimize fragmentation if it is designed to accommodate the wildlife corridors found amongst blocks of historically contiguous land.

HIGH VALUE PLANT AND ANIMAL HABITAT

The availability of high value plant and animal habitat is essential to maintaining an abundant and diverse population for both ecological and recreational purposes. Topsham has several areas that offer quality habitat for a variety of species.

Many of the most important plant and animal areas in Topsham are aquatic habitats and the areas immediately adjacent to aquatic and wetland areas. Aquatic and wetland areas are where most of the town's threatened species and species of special concern are located. Aquatic and wetland areas are sensitive to change and vulnerable to degradation. The development pattern in neighboring communities 'upstream' from Topsham can have significant impacts on the water quality in Topsham.

The Maine Department of Inland Fisheries and Wildlife has identified significant and essential habitats, endangered and threatened species, and species of special concern. For a map of habitats and ecosystems found in Topsham see the "Environmental Systems" map.

Invasive species are becoming more prevalent in the region and in Topsham. Topsham has a wide variety of known rare species and natural communities of state-wide significance, yet large areas of Topsham remain to be surveyed. Topsham has conducted two forest management plans and timber harvesting on town property that have identified and began invasive species management on these properties. A larger town-wide effort of invasive species management is beginning through efforts of the Topsham Conservation Commission.

Vernal pools are small spring pools created by winter runoff and spring rains. Vernal pools are important habitat for wood frogs, salamanders, fairy shrimp and other threatened and endangered species. By summer, pools dry out completely. (NEED TO ADD SAMP INFORMATION)

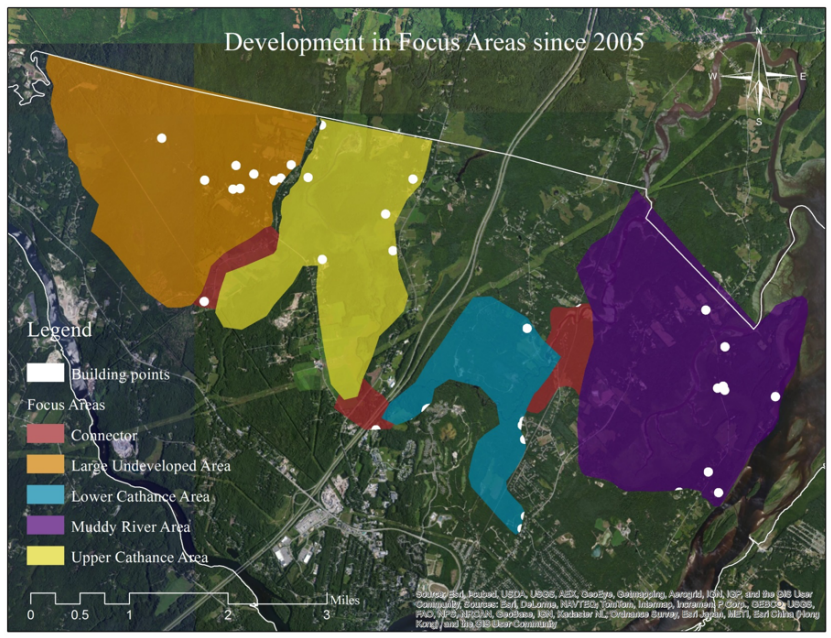
IMPLICATIONS

Natural Areas Plan

Following the recommendations of the 2005 Comprehensive Plan, the town formed a Natural Areas Planning Committee (NAPC). By 2010, the NAPC and the town had compiled and adopted a Natural Areas Plan inventorying important natural resources, analyzing their conditions and functions, and summarizing gathered community input on the value of natural resources and why they should be protected. Furthermore, the Natural Areas Plan puts together goals, recommendations, and strategies to further conservation. Through the creation of the Natural Areas Plan arose four local focus areas where high value conservation areas are to be prioritized:

1. Ward Road area
2. Bradley Pond/Western Cathance River Corridor
3. Eastern Cathance River Corridor
4. Muddy River area

The four focus areas were determined by combining an evaluation of the areas achieving natural resource and open space functions with the community's relative valuation of those functions. The plan also found that a majority of the development which was occurring at the time was in or very close to the four focus areas. Interestingly, the plan also pointed out that land which was likely to be available for development was also located in these focus areas. Mapping efforts conducted by the town in 2017 confirm that development continues to occur largely in the focus areas identified by the Natural Areas Plan in 2010. This combined map is shown below.



The Natural Areas Plan also created eight guiding principles:

1. Support long-term development opportunities consistent with the conservation of the Town's high value natural resources.
2. Support forestry and agriculture as a way to conserve rural land for future generations.

3. Work collaboratively with landowners, conservation groups, state and federal agencies, businesses, and other stakeholder groups to conserve natural resources.
4. Concentrate conservation efforts within the Focus Areas identified in the Natural Areas Plan.
5. Focus conservation efforts on larger blocks of ecologically viable rural land or connecting parcels.
6. Use the Geographic Information System (GIS) model described in this report to help set development and conservation priorities.
7. Continue to use the best scientific information available to identify natural resources of highest value within the Focus Areas.
8. Adjust the boundaries of Focus Areas as necessary as new information becomes available.

Implementation of the Natural Areas Plan has provided a new subdivision review process for the town, while adding in options for rural landowners in regards to subdividing their land. The plan ushered in new rules for a Development Transfer Overlay (DTO) district as well. Since this plan was implemented, the Town has seen little subdivision of rural land. An example where the Town approved a 42-lot "open space" subdivision resulted in a higher density neighborhood where the developer placed permanent protections on stream and wetland corridors associated with the urban impaired stream of the Topsham Fair Mall. The town continues to use GIS mapping to better understand the natural resource conditions within the town.

Regional Cooperation

In striving to secure the longevity of Topsham's natural resources it is essential to consider the town's surrounding region and resources as well. Environmental stewardship cannot be delineated by municipal boundaries, and efforts towards conservation and preservation should be coordinated within the region. Rare areas and species in neighboring communities are dependent of the quality of Topsham's wildlife, and vice versa.

The Town continually collaborates with the Brunswick Topsham Land Trust (BTLT), Bowdoin College, Kennebec Estuary Land Trust (KELT), Cathance River Education Alliance (CREA), Merrymeeting Trail, Friends of Merrymeeting Bay (FOMB), and University of Maine Orono (UMO) on natural resource planning activities:

- Watershed management
- Fish barrier surveys
- Climate change
- Sea level rise
- Conservation prioritization

Measures to Protect Resources

Within Topsham there have been significant efforts to enforce state-mandated minimum protections and further protections of resources through zoning, tax incentives and local action. In June of 2007, Topsham adopted an ordinance that created the Topsham Conservation Commission. The commission consists of five residents who are appointed by the Selectmen. Members are charged with acquiring, managing and improving land and easements, and educating the public in pursuit of the conservation goals of the town. Those goals have been laid out in the Natural Areas Plan adopted in 2010. The commission's projects include maintaining an inventory of town owed property, advising the Select Board on the disposition of property, advising the Planning Board on ordinance language that furthers the NAP goals, reviewing open space set asides proposed in new development, monitoring and maintaining existing easements, and coordinating with other conservation organizations on activities of mutual interest.

In 2012, open space subdivision performance standards were added to the town code to allow for development committed to conserving a minimum of 30% of the total acreage of the project. To qualify for this subdivision the developer must have an agreement with a 3rd party conservation organization (land trust) prior to any preliminary plan approval. The town has a conservation fund developed from in lieu fees of subdivisions that is spent on conservation.

In 2016, the town of Topsham adopted a Special Area Management Plan (SAMP) in conjunction with the Army Corps of Engineers (ACOE), the Maine Department of Environmental Protection (MDEP), and the Environmental Protection Agency (EPA) to create a "designated development area" where federal and state vernal pool regulations undergo a separate permitting requirement, and developers may choose a mitigation impact fee to avoid vernal pool permitting within this designated area. Topsham helped to create and was one of the first towns to participate in using this voluntary mitigation tool.

As part of its SAMP, the town enacted a Vernal Pools Overlay District in 2016 to allow for development in areas that are state or federally regulated due to their inclusion of vernal pool locations. The overlay district protects vernal pools while still allowing for flexible development. The ordinance benefits the environment and Topsham's growth, as it clarifies development potential of a property where vernal pools are located. Those wishing to build in proximity to vernal pools can comply with the applicable state and federal wetland regulations and associated requirements for the protection of vernal pools or choose to either pay a mitigation fee or undertake permittee-responsible mitigation activities in accordance with the provisions listed in the ordinance. All fees collected through this process are used only to fund vernal pool conservation projects and to permanently protect vernal pools in the rural area of Topsham.

Topsham adopted a Shoreland Zoning Ordinance in 2008, which complies with state law requiring the protection of shoreland areas through the regulation of the type of activity that is allowed in certain areas. Shoreland areas include areas within 250 feet of the normal high-water line of any great pond, river or saltwater body, areas within 250 feet of the upland edge of a coastal wetland, areas within 250 feet of the upland edge of a freshwater wetland except in certain situations, and areas within 75

feet of the high-water line of a stream. The areas to which this ordinance are applicable include the following zoning districts:

- Resource Protection
- Limited Residential
- Limited Commercial
- General Development
- Stream Protection

Topsham's Resource Protection District includes floodplains as designated by maps produced by the Federal Emergency Management Agency's (FEMA), or the flood of record, or in the absence of these, by soil types identified as recent floodplain soils.

Finally, incentives such as Maine's Open Space Tax Law are put in place by the state to encourage voluntary protection of important natural areas. The Open Space Tax Law offers landowners a tax reduction of up to 95% in exchange for protection of the town's important scenic areas. The tract must be preserved or restricted in use to provide a public benefit, such as public recreation, scenic resources, game management and wildlife habitat. The town assessor only considers land which has a deeded or easement restriction. Many landowners in Topsham qualify for this reduction, which has no minimum acreage requirement. As of 2016, there are five parcels totaling 366 acres taking advantage of the Open Space Tax Law, making it the least utilized current use tax program in Topsham.

Population

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of the population and demographics within Topsham and the surrounding region.

This Chapter is organized into four sections:

1. Population Projections
2. Aging Trends
3. Household Composition
4. Educational Attainment

The State of Maine is facing social and economic challenges pertaining to its loss of population, overall aging trends, and demographic homogeneity. Currently the oldest state in the United States, Maine needs to address its prospects for encouraging and then sustaining a diverse and well-connected population. While Topsham's demographics have been following along a similar trajectory to the State, the Maine Office of Policy and Management projects Sagadahoc County to increase. Topsham's share of this increase is 2%, or 204 residents, by 2024. The development industry has been building retirement-aged housing in Topsham, yet socially, Topsham residents expressed feeling disconnected and separated from one another by social delineations resulting from neighborhoods formed specifically around age or geographic location.

From 2000 to 2010, Topsham's population decreased from 9,100 residents to 8,784, a loss of 316 residents or approximately 3%. A negative population trend is pivotal for Topsham, which has experienced stable growth in prior decades (1970-1990). According to a census data estimate of 8,751 residents in 2015, population loss in Topsham continues.

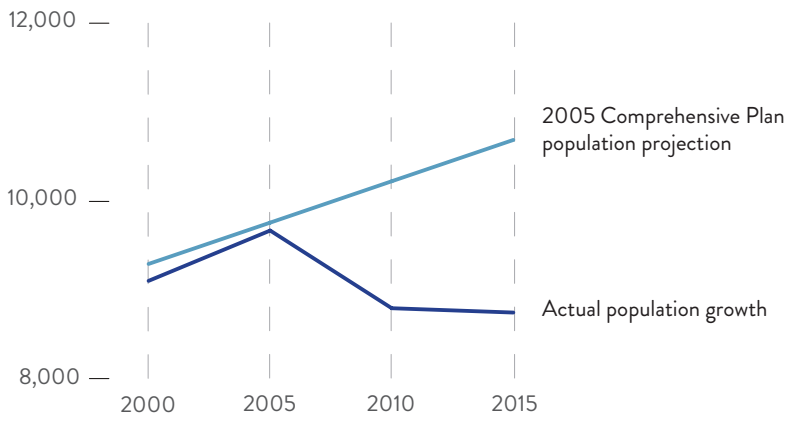
Potential indicators for future population trends can come from breaking down population growth by age. The age group which has experienced the largest growth in Topsham has been with residents ages 20-24 years old. The number of residents ages 20-24 has increased from 345 residents in 2010 to 660 residents in 2014, a growth of 315 residents or approximately 91%. The age group with the second largest growth in Topsham has been with residents ages 75-84 years old. From 2010 to 2014 the population of 75-84 year olds grew from 540 residents to 734 residents, a growth of 194 residents or an increase of approximately 36%.

POPULATION PROJECTIONS, 2014-2024

In 2016, Maine's Office of Policy and Management (OPM) released its population projections for the state based on 2014 U.S. Census population estimates. The OPM generates its population projections first on a county-wide scale using the cohort-component method which utilizes births, deaths, and migration data. The city and town projections are then calculated by estimating a constant rate of growth for each town's share of the county population. Most counties in Maine are currently expected to decline in growth over the next two decades. Sagadahoc County is one of only four counties in the state that are expected to experience an increase in population between 2014 and 2034. The projections for Topsham indicate that its population will increase slightly from an estimated 8,750 residents in 2014 to 8,924 residents in 2024, an increase of 204 residents or approximately 2%.

The validity of the Office of Policy Management's projections is unknown at this time. For example, accoring to the U.S. Census Bureau and American Community Survey (ACS) reports, from 2010-2014 the number of residents ages 20 – 24 years old has grown by 315 people. That's more people than what OPM projects for total growth in all age categories from 2014 to 2024.

In 2005, the Comprehensive Plan made projections for population growth in Topsham up until 2015. Choosing not to use the State Planning Office projections (which had more moderate growth projections), the committee came up with their own projections using "local records, regional housing trends, and local demographic characteristics". The actual population growth that Topsham saw between 2000 and 2015 did not align with those projections. Let this serve as insight that, no matter how thoroughly research is conducted, it is very difficult to predict what growth a town will experience. In order to counter the negative growth trend that the town has experienced, Topsham could choose to deliberately invite growth. Represented herein is a graph of the Topsham population projection made by the State Office of Policy and Management based on population estimates in 2014.



AGING TRENDS

As a whole, Topsham's population continues to age. In 2000, census data showed that the median age of Topsham residents was 36.3 years while the state of Maine had a median age of 38.6 years. By the 2010 census, Topsham's median age had risen to 45.2 years, surpassing the state's median age of 42.7 years. Across all age groups below 45 years, Topsham has lost residents. Across all age groups ages 45 years and over, Topsham has gained residents. A pattern of aging is reflected in statewide trends as well.

An older demographic is attracted to the elderly-services in the region, including elderly housing, recreation and medical facilities and the accessibility to nearby cities, rural areas, and the coast. The municipal effects of a substantially older demographic include increased demands on local services and facilities such as health services and recreation facilities and enhanced mobility. Topsham conducted an Aging in Place Community Survey and Focus Group in 2016, which found that respondents 50 years and older identified their own needs to be:

- The need for better communication about available social/civic/employment opportunities.
- The need to provide alternative transportation services.
- The need for services to help people stay in their homes.

HOUSEHOLD COMPOSITION

The average Topsham household size has decreased from 2.6 persons to 2.3 persons between 2000 and 2010. This decrease may be reflective of a larger national trend towards a preference for a smaller family or due to any combination of factors including aging, divorce rates, and decreasing incidence of multigenerational households.

In Topsham, with enhanced elderly housing and services, a possible reason for the decreasing household size could be the number of retirees living alone or with no children in the household. ACS data shows that the number of single person households occupied by residents 65 years and older has increased from 350 households in 2010 to 550 households in 2015.

The number of single-person family households has had some fluctuation, with more growth occurring in male-householder family households. Single female-run family households have grown in number from 260 in 2009 to almost 350 in 2015. Single male-run family households have more than doubled from about 50 households in 2009 to 170 households in 2015.

The number of Topsham residents living at or below poverty level has risen over the past few years. Unemployment has dropped, but the town population below the poverty line has increased from about 5% in 2012 to 8.1% in 2015. Out of all the households in Topsham in 2015, 11% were receiving food stamps or SNAP benefits. Of the households receiving assistance, almost half housed one or more people 60 years and over. Out of 2,345 total families in Topsham in 2015, 122 families (5%) were below the poverty level. Families below the poverty level included about 200 children under the age of 18 years old.

Seasonal Shifts

Topsham experiences some seasonal fluctuation in population for purposes of summer vacationing and retail shopping. Topsham's housing stock includes a percentage of vacant housing, almost 11% of its total housing stock as of 2010. Of Topsham's vacant housing stock, about 14% is used for seasonal, recreational, or occasional use. The number of seasonal housing units, 61 units in 2010, has almost doubled in comparison to a count of 35 units in 2000. Still, in terms of seasonal use, Topsham is more highlighted for its provision as a service center than one for lodging.

EDUCATIONAL ATTAINMENT

The rates of educational attainment in Topsham are increasing. In 2015, 95.5% of Topsham residents had at least a high school diploma, or equivalent, which is up from 92.5% in 2010. The average percentage of residents with a high school diploma or equivalent in the state of Maine, 91.6% in 2015, is lower than Topsham's. Similarly, the percent of Topsham residents with at least a Bachelors degree has grown from 34% in 2010 to 39% in 2015, which is higher than the state's average of 29%.

With a new high school under construction, Topsham could expect to see a spike of interest in its secondary

school system, which has been under capacity population-wise. Topsham's position as the home to a regional school district harbors great consideration towards the educational services it provides. With better facilities, Topsham will continue to excel in its academic performance and may attract additional young families.

Public Facilities and Services

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of the public facilities and services within Topsham and the surrounding region.

This Chapter is organized into four sections:

1. Public Water Supply
2. Public Sewer Service
3. General Government
4. Public Works Facility
5. Safety Services
6. Public Education
7. Public Library
8. Regional Resources

The town of Topsham's leadership strives to provide strong fiscal management of funds to benefit a range of public facilities and services for its residents. Within every public department in Topsham, staff is committed to maintaining and improving its equipment, staffing levels, and availability of services and programs as is possible within the annual budget. Public input is welcome and incorporated in the priorities of the town's departments. Given its strong fiscal leadership, Topsham is in a fortunate and advantageous position to continue to generate the means to optimize its facilities and services.

PUBLIC WATER SUPPLY

Within the denser areas surrounding Topsham Village and the Topsham Fair Mall, public water and sewer services are available. For the rest of the town outside of this area, water generation and septic disposal are an individual landowner responsibility.
With the physical connection of Topsham to Brunswick by the Frank J. Woods Bridge, the ability to share water resources became an attractive possibility. In 1903, Topsham and Brunswick joined their efforts and became an incorporated water district, with expanded drinking water and fire service extending to Topsham starting in 1908.

The Brunswick Topsham Water District (BTWD) is a quasi-municipal organization governed by a Board of Trustees. Of the six members of the Board of Trustees, four are appointed by the Brunswick Town Council and two members are appointed by the Topsham Board of Selectmen. All trustee appointments are for three-year terms with two terms expiring each year. The BTWD is a self-supporting organization procuring its operating funds from user fees. The charter area includes the geographical boundaries of Topsham and Brunswick.

The District's source of supply is from groundwater with several wells and well fields in Brunswick and Topsham. In Topsham, the Jackson Station treatment facility located on River Road is supplied by two wells:

- the Holden Well, an 18"x24" gravel-packed well with a pumping capacity of 2,500 gallons per minute (3.57 MGD); and,
- the Air Force well, a 24" naturally developed well with pumping capacity of 2,500 gallons per minute (3.57 MGD).

The Jackson Station treatment facility was originally constructed in 1971 and renovated in 1991, and treats raw ground water with a greensand filtration system and chemical addition prior to distribution.

The water from the wells is treated for trace amounts of iron and manganese. Chlorine and fluoride are added for public safety and a corrosion inhibitor is added to maintain the water distribution system. In 2013, two new residual handling lagoons for Jackson Station were constructed. The earthen lagoons collect filtered backwash wastewater that is discharged from the treatment plant.

However, The Jackson Station facility does not have the

capability to remove organic carbon, which contributes to disinfection by-products. The facility is scheduled to be replaced in 2020, at a total project cost of $25 million dollars. The new facility will be designed to address this deficiency along with the building and space deficiencies identified in a 2012 facilities report prepared for the district. The BTWD is presently piloting technologies to identify the best treatment approach to be utilized by the new facility.

Water Distribution Network

The Water District's distribution network currently consists of 123 miles of water mains ranging in size from 1" to 20", 7,000 water service lines and approximately 790 fire hydrants. Water mains typically run underneath roadways and deliver the water from storage tanks to each user's water service line. Much of the distribution system is built on the area's sandy soils, which helps to maintain the excellent shape of the Water District's distribution system.

The Water District currently has two water storage tanks, one in Brunswick and one in Topsham. The storage tank in Topsham is located off of Oak Street and has a capacity of 4 million gallons. This tank was built in 2005, replacing the previous tank built in 1912.

Because the distribution system is gravity fed, there is an elevation limit to how high water will flow to homes and businesses. Using the existing infrastructure, the effective limit of the current water distribution system is 150 feet above sea level. Areas that are higher than 150 above sea level are likely to have low water pressure levels. If an expansion of the distribution network were to occur above the 150-foot level, a booster system would have to be installed to provide adequate service.

In 2017, Topsham water consumption averaged 2.26 million gallons per day with a peak day of 4.41 million gallons. According to an engineer at the BTWD, the Water District does not have any issues in handling these peak days, and does not expect any issues to arise in the future. The water system has the capacity to store seven million gallons and for short periods of time has the ability to produce up to 7.5 million gallons per day (MGD). Even with an extreme change to the volume of water consumption, the system could handle peak days of over 12 MGD.

PUBLIC SEWER SERVICE

Topsham has a limited public sewer system provided by the Topsham Sewer District, a quasi-municipal organization created by the state legislature. The district's chartered service area is located within a two-mile radius of the intersection of Main and Elm Streets. The Sewer District is a collection system only and has no treatment plant, pumping sewage across the Androscoggin River to the Brunswick Sewer District Treatment Plant. The District presently operates a system of gravity lines, force mains, and pressure effluent systems. As with the public water system, expansions to the sewer system are built to meet the requirements of the sewer district and paid for by developers. Ownership of the expansion is then given to the Sewer District to operate and maintain.

Currently, the Topsham Sewer District has a contractual agreement with the Brunswick Sewer District that specifies payment terms for the treatment for all the sewage produced by Topsham until the year 2023. Topsham is billed monthly for the percentage of the Brunswick plant's operating costs corresponding to the amount of waste it brings into the system. After 2023, a new contract will need to be negotiated. Regardless, Brunswick is required by state law to accept Topsham's sewerage. While the two towns have a history of working closely together, the towns do not have a consolidated sewer district, each having independent boards of trustees appointed by the Brunswick Town Council and the Topsham Board of Selectmen.

GENERAL GOVERNMENT

Topsham's Municipal Complex, located at 100 Main Street, is the center of the town's government. The complex is comprised of two buildings located adjacent to each other: the Town Office, and the Public Safety building. Constructed in 2007, the Town Office is a 10,000 square foot, two-story structure which houses most of the administrative offices of the town. The building includes a meeting room for the Board of Selectmen and other town boards to conduct regular business, and a second floor conference room. Civic space in the town office includes a main floor lobby space that is sometimes used for public displays. There is further potential for this community space to benefit public engagement, and the town is open to considering uses in these areas as they are proposed.

PUBLIC WORKS FACILITY

The Public Works Department in Topsham manages and maintains all of the town's public roads, 14 miles of sidewalk, traffic signals, winter plowing and stormwater maintenance. It is staffed by full-time employees (director, foreman, and operators), part-time employees (clerical assistant, laborers), and seasonal part-time employees.

The department resides in a facility adjacent to the Coastal Connector. The 22-acre parcel has a 16,000 square foot main building and a 9,600 square foot sand storage building. All of the department's equipment is stored in the facility. The main building also has office space and a lift for equipment maintenance. The department relies on two enclosed storage containers at the facility and four storage containers at the town's solid waste facility.

The Public Works Department has expressed a desire to increase its staffing capacity in order to work more effectively, in particular as traffic calming, bicycle and pedestrian facilities are expanded. Furthermore, the department emphasized a need for the town to consider funding resources and budgeting to accommodate the ongoing maintenance of new infrastructure expansions. Improvements such as bicycle and pedestrian paths need to be maintained all-year, including winter months, and having the appropriate staff and equipment to anticipate this flow of maintenance would help relieve the strains on the department and its labor and time management. Public concerns related to the prioritization of winter snow removal could be better addressed with increased

funding.

Solid Waste Disposal and Recycling
The Solid Waste Department operates the solid waste transfer station and recycling center on Foreside Road. Residents are responsible for transporting their wastes to the facility individually or via a private hauler. The Town has a contract for waste disposal with Pine Tree Waste to transport the town's waste to landfills. This contract runs through 2019. There is no limit on the volume of wastes that can be disposed of through this arrangement.

The facility is equipped with a two-container trash compactor. The recycling center is housed in a 40 foot by 80 foot steel building and includes five bailers and two glass crushers. The recycling facility can handle all types of material. The Town composts yard waste at the site. Other recyclable materials are processed and sent to various places.

In 2016, the residents of Topsham recycled over 1,146 tons of recyclable material, reducing disposal costs to the town. The Solid Waste Department of Topsham estimates that in 2016 the recycling rate for the town was 36%, as reported in the Town's Annual Report. The Solid Waste Department prides itself on expanding its services and increasing public awareness and education of best recycling practices. The department has expanded to include the means to recycle cooking oil, which can be converted into biodiesel. The department hosts public events, such as Household Hazardous Waste days to support the removal of pollutants from Topsham households.

According to the Solid Waste Director, the Town's current system is adequate to meet the Town's waste disposal needs and can handle the increased volumes resulting from modest growth. The Town does not anticipate making any changes in its system except for adjustments needed to comply with any changes in state regulations or requirements.

Stormwater System
Topsham has a separate stormwater system to manage runoff. The condition and adequacy of the various elements of the system vary and are related to when the various portions of the system were installed. According to the Public Works Director, there are issues with maintenance of the system's infrastructure and its capacity. Certain areas, such as the Highlands, are expanding and so the town must adapt its infrastructure to balance the increased load this can place on the system at large.

The stormwater systems in Elm Street and Winter Street in the Lower Village were installed in the late 1970s. As most recently reported by the Public Works Director, the storm drains along these streets are in poor condition. The piping is in fair condition, but the overall structures need replacing.

The town's stormwater systems built in developments pre-1990 are either not large enough or not interconnected enough throughout the developments to work properly. The Public Works Director reports that, while the stormwater systems are functioning, the systems need attention to continue to manage flow properly. Furthermore, the existing piping capacity of these systems is too small to add increased stormwater flow from new developments. Specifically,

- the Topsham Heights area system is built with metal pipes and hand-built basins. There have been several projects targeted to address the worst issues of the Topsham Heights system, and though it needs more maintenance work, the system's function has improved;
- the Arbor Avenue system is made up of metal pipes and metal basins. The Arbor Avenue system needs upgrades and additional basins;
- the Barrows Drive area and the Pinewood Drive area need further improvements. The Barrows Drive area is built with plastic pipes and concrete basins. The stormwater system in the Barrows Drive Area has had several projects completed to help increase its capacity and replace its structures. However, the Barrows Drive area needs further attention, specifically targeted at the homes located behind Patricia Drive. Both Barrows Drive and Pinewood Drive are older stormwater systems that need rebuilding.
- The Bay Park drainage system was installed in order to manage the height of the water table, and not for the purpose of handling major rain events. The current condition of the Bay Park system, as described by the Public Works Director, is very poor. The drainage system is at the level of the water table level and water flow is minimal due to elevations and pipe conditions. The way to fix this issue now is to engineer and install a new system.

The stormwater systems installed post-1990 are in satisfactory condition and are working properly. Most of these systems are constructed with plastic smooth bore pipe and concrete basins.

In 2017, concerns were raised in regards to the conditions of a 48-inch culvert starting on the north side of Elm Street Extension and crossing under Main Street. A capital improvement project is in the works to address necessary improvements to the drainage system in the Lower Village area. Economic development funds have been set aside for addressing the potential replacement of the drainage pipeline.

A current list of the town's majorly impaired culverts includes:

- Elm Street near the cemetery;
- Granny Hole outfall to Elm Street extension (major drainage culvert under/along Main Street in the Lower Village
- Meadow Cross Road about a half mile from Route 196; and,
- Tedford Road there a (2) 24" culverts side by side that need replacing.
- River Road (Topsham Fair Mall Stream)

The town does not meet the population requirements

to be designated as a Municipal Separate Storm Sewer System (MS4) community under the US Environmental Protection Agency, Stormwater II program. However, the Town has undertaken a watershed planning effort associated with the Urban Impaired Stream within the Topsham Fair Mall area. The effort has provided the Town an opportunity to qualify for MDEP 319 funding and undertake projects to improve the stream quality. The stream is found to not meet water quality attainment goals largely due to chloride levels associated with the impervious area within the watershed. A Technical Advisory Committee that includes local engineers, landowners, developers, conservation commission, and citizens was created to assist both the planning and implementation efforts. To date, some of the products that have resulted from this planning effort include:

- Land use ordinance amendments
- Catch basin filter inserts throughout watershed
- River Road culvert replacement funding
- CCTV analysis of infrastructure condition in portions of the watershed

SAFETY SERVICES

Police Department

Topsham's Police Department is happy to be operating at full capacity with a full-time staff of 16 officers including the chief, lieutenant, detective, sergeants, officers, and two reserve officers. The department is located at the center of Topsham's Main Street in the Public Safety Building.

In 2015, Topsham reported 119 indexed crimes (violent crimes and property crimes), or a rate of approximately 13.67 crimes for every 1,000 residents. Topsham's crime rate is similar to that of Sagadahoc County, which has a rate of 12.79 crimes for every 1,000 residents, and is lower than that of the state's, which has a rate of 19.56 crimes for every 1,000 residents. According to the department, the biggest reported change that has occurred in the types of calls received by the police department is an increase in the volume of calls for overdoses, particularly in the 18-35 year old age group, and mental illness.

Despite operating at full capacity for the first time in at least a decade, there is concern for the prospects of police recruitment. According to the department, the number of applications that the department receives has decreased by more than half in recent years. Further, police recruitment has become a competitive market as nationwide trends have turned to a serious decline in police employment due to factors such as low pay, high risk, rigorous training and applicant requirements, and a recent negative public opinion of the police force in general. The younger contemporary workforce is prioritizing work-life balance and flexibility, whereas the police force is traditionally a job involving overtime and a lifestyle commitment. To mitigate this trend, Topsham's police department rotates its staff schedule every six months.

The department also noted that potential new officers graduating from the police academy as well as current officers employed by Topsham's police department are actively scouted by local and state police departments. Offers may include recruitment bonuses, better health insurance packages, a larger agency, and higher pay make it hard to compete. Towns are also releasing their residency requirements, making it possible for officers to apply for agencies outside of their local area. Topsham's police department offers a retirement package that helps to keep the town competitive. With several Topsham police staff up for retirement, it is critical to retain officers and push recruitment in order to sustain the future presence of the police department.

It is important to Topsham's police staff to maintain good community relations and to emphasize their role as a resource for education as well as enforcement. The police department has an exceptional relationship with the local school district. There is a police officer regularly stationed at the high school that offers the opportunity for students to understand the public service aspect of the police department and to feel comfortable utilizing and trusting this relationship and resource.

Fire Department

The Fire Department is staffed by two full-time employees, including the fire chief, and a total of 48 volunteers. The volunteer force is a combination of call-force workers, paid per hour, and per diem workers, paid per day that they are on site and on call. Through mutual aid agreements, Topsham's fire department provides and receives emergency assistance from all its surrounding towns.

Firefighters are also first responders for emergency care. Topsham is fortunate to have a Chief of Police who was the former head of ambulance services, as the police and fire departments must work closely together. According to the Fire Chief, the majority of calls that the fire station receives today, about 75%, are Emergency Medical Service (EMS) calls. The remaining 25% of calls are for fire emergencies.

The fire department provides a fire safety education program to students in the local public elementary schools. The fire department also provides public outreach through regular programming, such as an open house during its annual fire prevention week, and by offering its services, such as smoke detector installation for those who cannot afford them. According to the Fire Chief, the number of fire emergency calls has been decreasing over the years. The department attributes this change to stronger fire safety awareness achieved through its educational programming.

Since moving to a new and centrally located fire station, the fire department is happy with the condition and efficiency of its facilities. The department's average response time to a call is under two minutes, and the time it takes to arrive to the emergency is between 12 to 15 minutes. Through sound fiscal management, the station can afford to replace six sets of gear annually, ensuring that equipment is up to date. This replacement schedule is part of the town's Capital Improvement Plan.

Considering the future, the Fire Department is trying

to address staffing issues related to recruitment of new volunteers. The Fire Chief reports that, like other towns in the region, there is a lack of interest in fire employment. The Chief feels this may be resulting from requiring applicants to complete a thorough training and certification process, a process that is time consuming and may be intimidating. As such, the department is considering a transition to more full-time positions.

PUBLIC EDUCATION

The Town of Topsham is a member of Maine School Administrative District No. 75 (MSAD 75). MSAD 75 is a quasi-municipal agency, governed by a Board of Directors consisting of 14 elected representatives: two from Bowdoin, two from Bowdoinham, four from Harpswell, and six from Topsham. Four of the District's schools are located in Topsham including: Mt. Ararat High School, Mt. Ararat Middle School, Williams-Cone School, and Woodside Elementary School.

Within the MSAD 75 district and the region, private schools offer alternatives to public education, including the charter school, Harpswell Coastal Academy (HCA). In 2013, HCA was created as a small charter school focused on project-based learning. The HCA has grown from six educators and 60 students in 2013 to more than 20 staff members and a current enrollment of about 200 students, 22 of which are from Topsham. The HCA intends to retain its intimate size, with no anticipation of significant expansion. Other private schools offering high school programming within a short commute to Topsham include Maine Coast Waldorf School (Freeport), Hyde School (Bath), and North Yarmouth Academy (Yarmouth).

Population Change in the District

Population changes within age groups of children and adults, have ripple effects on the demands for school services. According to a 2015 study, prepared for the district by Planning Decisions, the district will experience continued enrollment decline. As a means of grounding future school enrollment projections, Planning Decisions summarized these findings:

- Declining birth rates, causing downward pressure on the size of the population entering first grade classes
  - The average number of birth rates over the five-year period of 2009-10 to 2013-14 were lower than the previous five-year period of 2004-05 to 2008-09. The average number of births between these five-year spans dropped from 193 births to 167 births.
  - Most recent birth rate estimates from the American Community Survey show a still declining birth rate, with a total of 128 births estimated in 2016.
- Net preschool out-migration trends
  - The average migration trends of preschoolers in Topsham changed from an in-migration in the five-year period of 2003-04 to 2007-08 to an out-migration in the five-year period of 2008-09 to 2014-15.

Based on the findings above, Planning Decisions made the following projections for the school district through to 2024-25:

- Declining K-5 enrollment, perhaps leveling off following 2019-20
- Declining Grades 6-8 enrollment in MSAD 75, but increasing charter school enrollment for this age group
- Declining Grades 9-12 enrollment in MSAD 75, but increasing charter school enrollment for this age group

So far, the enrollment projections by Planning Decisions have held true. The most recent 2017-18 Opening Day Enrollments summary, generated by the school district, shows declining enrollments across all grades of Topsham's school system. Grades K-5 in MSAD 75 have reached a total of 1,090 enrollments in 2017-18, consistently decreasing from 1,295 enrollments in 2005. The middle school has lost enrollments consistently as well, with a total of 586 enrollments in 2017-18 as opposed to 747 enrollments in 2005. The high school has faced a decreasing population, with 706 enrollments in 2017-18 as compared to 1,071 enrollments in 2005.

Looking forward, Superintendent Bradley Smith reports anticipated growth in school population due to the following: 1) potential addition of a public preschool program; 2) incorporation of students previously served by the Child Development Services (CDS) system; 3) a renewed interest in the new high school; and, 4) the potential increase in young families attracted to the planned new housing to be built in close proximity to the middle and high school campuses.

Expenditures on New Facilities

The most significant upcoming expenditure is for the new Mt. Ararat High School. The existing high school building was built in 1973 and serves students from all four communities in MSAD 75. It is an older facility built as an open-concept design, considered today by the district as an impediment to the learning environment and enrollment. In 1999, MSAD 75 began to apply for state funding to construct a new high school. In March 2017, the district was approved for state funding and has since fully involved itself with the construction and integration of a new, more traditionally designed, high school. The new high school in Topsham is planned to open in the Fall of 2020. The cost of the high school project is $60,704,671, of which approximately 90%, or $53,486,792, is funded by the state. The remainder of the project costs are covered through local funding. Most recently, MSAD 75 has undertaken the construction of a new baseball and training field on the school campus. With the creation of a new high school, Topsham expects to see a renewed interest in attendance and a correlative rise in its school enrollment numbers.

Provision of Special Education Services

Special education at the elementary level is provided district-wide at Woodside elementary school. Students with disabilities are bussed from across the district to receive personalized attention and support. There are an

estimated 35 students currently enrolled in the special education program.

Provision of Public Preschool Programs

In 2014, the Maine Legislature passed a law to establish public preschool programs at all Maine school districts by the 2018-2019 school year. In 2016, about 64% of the school districts in Maine offered public preschool programs. However, only about one-third of Maine's four-year-olds were enrolled at that time. Research shows that providing the universal opportunity for quality early education has significant and worthy impacts on a child's success and performance throughout the entire remainder of their education in school and later on, their aptitude and potential in life. MSAD 75 would like to move in the direction of including a public four-year-old program but will have to anticipate the resources required for supporting such a program, particularly when changes such as the incorporation of CDS are expected.

Adult Education Services

Merrymeeting Adult Education was founded in 1978 as an organization funded by the Brunswick School Department and MSAD 75 to provide residents with interrupted educations an opportunity to complete their GED. Since its creation, the organization has expanded greatly to include extracurricular courses to fulfill other learning interests, such as crafts and vocational skills. With federal and state grants, the organization has grown to include courses in literacy, English as a Second Language (ESL), and college preparation. Merrymeeting Adult Education currently offers hundreds of courses and workshops and provides an important resource to Topsham residents.

TOPSHAM PUBLIC LIBRARY

The Topsham Public Library provides a wide range of services to the residents of Topsham, Bowdoin, Bowdoinham, and Harpswell and operates as a mission-based, modern day library for community gathering and enrichment. The library is governed by a 12-member Board of Trustees, including a student member, responsible for setting policy and overseeing the overall operation of the library. Funding for the library is generated primarily through an annual appropriation from the Town's budget, which covers 85% as designated in the last Memorandum of Understanding (2015). The Library raises the remaining 15% from supporters. In 2017, the library received $545,677 from the town, $84,239 from its own fundraising efforts, and $16,789 from The Friends of the Topsham Public Library (a nonprofit membership organization dedicated to supporting the library).

The library is staffed by four full time employees and ten part time employees that total approximately 4.7 additional full time employees. The library relies heavily on volunteers whose efforts make many of the its services possible. In 2017, 99 volunteers served 2,942 hours to assist with the operations and event programming of the library. There are approximately 40,000 items in the library's collection, not including those available through interlibrary loan. As a member of the Minerva consortium of 60+ libraries in Maine, the Topsham Public Library is required to maintain its collection/materials budget at a three-year average and pay regular service costs.

Demand for services and programs has steadily increased and has reached a consistently booked out programming schedule. In looking forward, the library has compiled and continues to update its Long Range Plan (2016-2019). In its plan, the library targets goals of expanding its staff both in diversity of personnel and hours, bolstering its volunteer program, and preemptively coordinating its development to meet its growth and ensure the maintenance of current programs and services. Additionally, space for a growing collection will be a concern. Whether the library can reconfigure space or will need additional space is an open question at this time but should not be precluded from any long range plan. External garden areas and other amenities will also need updating and care, done by volunteers, staff, and local professionals.

REGIONAL RESOURCES

Regional Health Care

Topsham is fortunate to host an array of health care services for the wellbeing and comfort of its residents. Many services are geared towards Topsham's growing elderly population, providing resources to help residents stay healthy in their homes or in assistance facilities. Locally-based organizations include:

- Comfort Keepers is an organization throughout the Mid Coast that began providing non-medical in-home care and senior services to Topsham in 2012. Comfort Keepers works closely with local hospitals, assisted living facilities in the community, and the local hospice program. Comfort Keepers also organizes a food drive program called Feed Seniors Now which helps ensure food security in the local elderly population;
- Northern Sun Family Healthcare and Birth Center is based in Topsham, providing comprehensive primary naturopathic healthcare and midwifery services;
- The Mid Coast Medical Group is prominent in the area, and has a family practice as well as an adult care and internal medicine center located in Topsham; and,
- Planned Parenthood has an office on Bowdoin Mill Island, that offers a range of women's health care, family planning, and general health care services.

In Brunswick, Topsham residents have access to additional health care services, including:

- Mid Coast Hospital
- Martin's Point Health Care Center
- U.S. Healthworks Medical Group
- Community Health and Nursing (CHANS) Home Health and Hospice
- Parkview Medical Center

Other regional health care services include:
- Central Maine Family Practice (Lewiston)
- United Way of Midcoast Maine (Bath)

Regional Social Services

It is important for Topsham residents and families to

be connected to caring resources that can provide assistance in cases of hardship. Topsham participates in the state's General Assistance Program, which assists residents of Topsham with basic necessities when the need is immediate and the individual is unable to provide the basic necessity essential to maintain themselves or their family. The state reimburses Topsham for 70% of the program's expenditures. The General Assistance Program is available to all persons who are eligible to receive assistance in accordance with the standards of eligibility as provided in the state's General Assistance Ordinance.

Active regional social services available to Topsham residents cover a range of needs.

In Brunswick, social services organizations include:

- Oasis Free Clinics
  - Health clinic, dental clinic, and prescription assistance clinic
- Mid Coast Hunger Prevention Program
  - Food pantry
  - Soup kitchen
- Spectrum Generations
  - Meals On Wheels and general senior services
- Addiction Resource Center (ARC) at Mid Coast Hospital
- Tedford Housing
  - Homeless shelter
  - Housing and homeless prevention services
- The Gathering Place
  - Daytime homeless shelter

Other regional social services organizations include:

- Habitat for Humanity, 7 Rivers (Topsham)
  - Creates housing opportunities for families with limited incomes
  - Builds sustainable housing, and repairs, weatherizes and modifies existing homes
- Lisbon Area Christian Outreach (Lisbon)
  - Food pantry
  - Clothing bank
- Salvation Army Food Pantry (Bath)
- Midcoast Maine Community Action (Bath)
  - Supports a Head Start preschool program based in Topsham
- YMCA (Bath)
- YMCA (Casco Bay)
- Healthy Kids (Damariscotta)
  - Child Abuse and Neglect Council
  - Community based family and professional network
- Good Shepherd Food Bank (Auburn and Hampden)
  - Largest hunger relief organization in Maine

Parks, Recreation and Open Space

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of the diverse recreational opportunities within Topsham and the surrounding region.

This Chapter is organized into three sections:

1. Recreation to Accommodate Demographic Change
2. Recreational Facilities
3. Water Access

With the existing recreational opportunities available throughout town, and according to input received during our Plan Your Topsham event, Topsham residents are generally living more active and outdoor-oriented lifestyles. The Town's geographic location gifts it with a large inventory of natural recreational opportunities for hiking, bicycling, paddling, snowmobiling, fishing and hunting. Outdoor conservation areas and private open spaces are supplemented by public and private facilities providing more organized recreational activities. Considering Topsham's outdoor recreational resources, the town could proactively encourage more growth and investment by further enhancing programming and facilities for specific age demographics, and by exploring ways to increase access to trails, shoreland, and water. Topsham's recreation department should continue to do what it has been doing well to date: to thoughtfully consider the trends affecting the population (who is here now), and keep an open dialogue with the community about what people want and need to live an active, healthy, socially-enhanced lifestyle.

RECREATION TO ACCOMMODATE DEMOGRAPHIC CHANGE

According to the Director of Parks and Recreation, in her time with the department she has observed a number of trends that she feels shapes the kinds of recreational programs the Town needs to offer. First, the Director has observed that the nature of the family has changed in terms of family structure (single parent heads of household, blended families) and 2-parent working families. Coupled with technology rising as the forefront of entertainment, the Director feels it has become more important for the department to encourage active recreation and healthy diets for children in the community, and consider programming geared towards younger children ages three to five who are not yet enrolled in school. The department currently helps support the programs of Let's Go!, an obesity prevention initiative organized by MaineHealth. Let's Go! is actively integrating evidence-based strategies for healthy living into the Topsham schools, child care, and after school programs.

RECREATIONAL FACILITIES

The Town has a close relationship with the school district, which allows the public to access many of its facilities for regular use and for events programming.

The department has been using a wide variety of indoor spaces for its recreational programming. The gymnasiums at the elementary schools are used extensively, and the library is used for several programs. Additionally, the Town sponsors a partnership with the public school district and Bowdoin College, which allows for free public swimming at Bowdoin College every Sunday. School Administrative District (SAD) 75 facilities available for recreational programming include the following:

- The Williams/Cone School has two outdoor basketball courts, a playground, a playing field, a gymnasium, and three miles of hiking trails.
- The Woodside Elementary School has a gymnasium, a 90' baseball diamond, a playground, and a soccer

field.
- Mount Ararat Middle School has four outdoor basketball courts, a 60' softball diamond, a 90' baseball diamond, and two multi-purpose fields.
- Mount Ararat High School has two outdoor basketball courts, a soccer field, a 90' baseball diamond, two multi-purpose playing fields, two 60' baseball diamonds, five tennis courts, a 440-yard track, a gymnasium, a stage/auditorium, and 5.5 miles of cross country trails. With the state funding that was approved for Topsham in 2017 for the construction of a new high school comes funding for a new baseball field and two multipurpose competition fields, which are currently being built. After the completion the new high school, there will be an athletic track and field facility built on the existing land of the old high school.

The Town is currently assessing the need for the possibility of more indoor recreational space, such as a community center. The areas of need identified include:

- Programming for before and after school care
- Seniors
- Community Rooms
- Fitness
- Sporting Events

Topsham has centralized its publicly-maintained outdoor recreation facilities to one central recreation complex. The Foreside recreation complex on Foreside Road includes the following amenities:

- Three 60' baseball diamonds
- Seven multi-purpose playing fields
- One full-size soccer field
- Two outdoor basketball courts
- 2.5 miles of hiking trails
- Two winter skating rinks
- One handicap-accessible concession pavilion with restrooms and kitchen facilities
- One playground

The Town Selectmen also created the Townsend Way Recreational Area in 1997. While this area has not been developed, there are two ponds for fishing and approximately 160 acres of fields and woods. There are developed trails for hiking, biking, skiing and snowmobiles within the forested area. The trails are part of a larger network of private trails that weave in and out of the surrounding neighborhoods. The ponds of the recreational area prohibit swimming.

Private Recreational Facilities

In addition to school or publicly run facilities, nearby private recreational resources are available to the public including a range of facilities in Brunswick, Bowdoin College, hiking trails at Bradley Pond and The Highlands, Cathance River Preserve, private fitness centers, water access points to the Androscoggin River and Merrymeeting Bay, a golf course at Highland Green, and the Brunswick Golf Club.

A Need for Improved Services or Facilities

Topsham's diverse landscape has provided the opportunity for a network of extensive and captivating trails. Topsham's trails provide a means for the community to be immersed in nature as well as to be connected to its surrounding communities. The role of a trail network to create natural corridors is essential to the preservation of habitat and ecosystems.

In Topsham, existing trails include:

1. Paved ADA accessible facilities:
   - Androscoggin Riverwalk and 'Bridge to Bridge' Path
   - Topsham Trail Multi Use Path (Topsham Fair Mall to Community Drive)
   - Androscoggin River Bike Path (Connecting to Brunswick)
   - Topsham Fair Mall Road Loop

2. Hiking Trails
   - Bradley Farm Pond Preserve
   - Cathance Nature Preserve
   - Cathance River Corridor Heritage Trail
   - Cathance Water Tower Trails
   - Mt. Ararat High School Trails
   - Public Library Eagle's Path
   - The Ravine Trails
   - Recreation Fields Trails
   - Town Forest Trail
   - Transfer Station Trails
   - Topsham Fair Mall Road Loop

While the Town has a robust trail network and conservation open space, the Town currently has no formally designated parks within its neighborhoods for public gathering and play. Children living near school sites have opportunity to use school playgrounds only. Seniors do not have access to formal public gathering spaces, with exception to the Topsham Town Library gardens.

The residents of Topsham are very trail- and access-oriented, and the department has received feedback from the community asking for more trails, parks, and outdoor recreational opportunities. The department supports this interest but is sometimes challenged by ensuring the maintenance of new facilities due to a lack of staffing and funding. However, even with these challenges, Topsham continues to plan for the expansion of its trail network. The Town is in an ongoing partnership with the Merrymeeting Trail initiative, a plan to create a 32-mile regional rail-with-trail from Topsham through Bowdoinham and Richmond to Gardiner. Once complete, the trail will provide an alternative transportation route as part of Maine's Capital to the Coast Trail System, connecting Augusta to Bath. The quality of life impact of the manifestation of the Capital to the Coast Trail System will be significant. In 2010, 122,250 people, or 9.2% of Maine's population lived within 10 miles of the proposed trail system. In addition to recreation and mobility opportunities, the trail will also serve as a means of community revitalization, bringing in consumers, tourists, businesses and jobs.

Snowmobile Trail Network

The local Topsham Trailrider's Association (TTA) supports regional ATV and snowmobile riding by encouraging the establishment of trails in a manner that minimizes environmental impact and general disturbance to private property. The TTA generates a map of local trails (online), which includes 15 miles of trails accessible by ATV and 30 miles of trails accessible by snowmobiles.

WATER ACCESS

Water Access to the Androscoggin River

Despite having a lengthy shoreline, the Town has no water access to the Androscoggin River within its boundaries. Access for hand-carry and put-in motorized boats is limited to facilities in Brunswick, located on Old Bath Road, Water Street, and River Road (Pejepscot Fish Park). Currently, the Androscoggin Riverwalk provides scenic views to the river, with some informal paths leading from the Riverwalk down to the riverfront. There are also four pocket park scale areas with visual waterfront access areas (two in the Lower Village, one above the dam on Summer Street and one immediately across the Frank Wood Bridge in Brunswick). All of the pocket park areas with visual access and informal trails to the shoreline that primarily serve as access for shore fishermen are privately owned and maintained.

The town's Lower Village Plan includes a waterfront park that would provide access to the lower Androscoggin River as well as walking trails along the river. Pedestrian access exists to the Muddy River from two state owned parcels, but no parking facilities are available. Parking along the shoulder of this stretch of Foreside Road can be dangerous. When all phases are complete, the 1.25-mile long walking loop will connect the Towns from the Frank J. Wood Bridge to the historic Androscoggin Swinging Bridge.

The project first began in 2006 with funding from the Maine Department of Transportation (MDOT) to rehabilitate the Swinging Bridge for pedestrian use. Two parking lots were created on either end of the Swinging Bridge in 2007. In 2012, the Mill Road section was constructed through the woods in Topsham with MDOT grant funding. The Mill Road section of the Riverwalk links the Swinging Bridge to the Summer Street sidewalk. Future phases include: improvements along the busy Mill Street Route One connector in Brunswick and the Fort Andross area in Brunswick, and a riverfront park at the Priority Business Center in Topsham.

In 2011, the Lower Village Waterfront Access Study was completed to understand the physical opportunities and constraints of creating a public gathering space and waterfront access to the Androscoggin River. The study evaluated the physical site composition of the area, environmental constraints, and reviewed utility, transportation, storm water and pedestrian infrastructure (within the Lower Village and in connection to immediately adjacent and regional systems). The study arrived at multiple points of community consensus, including that access should be for hand-carry boat access, and public space should provide visual access to the river. Future construction and development at two sites in the Lower Village could improve water access: the Fire Barn has been demolished, and the Frank J. Wood Bridge is scheduled for replacement. Both projects create an opportunity for the Town to work collaboratively with landowners to further goals of enhanced public access to the river.

Water Access to Muddy RIver

The mouth of the Muddy River borders the Towns of Bowdoinham and Topsham. The river outlets into Merrymeeting Bay at Pleasant Point in Topsham. Muddy River is a popular spot for small boats, as it is surrounded by freshwater tidal marsh, inhabiting tidal freshwater species and features. Muddy River is noted for its birdwatching opportunities, archaeological artifacts, and evidence of use by Native Americans (Brunswick Topsham Land Trust). This area is also highly utilized by anglers and duck hunters during their respective seasons. Conditions for formal access are constrained on the west side by private ownership, and the east side (state-owned) by significant wetlands. Though no formal public access exists, permission may be granted from the landowner to the river for hand-carry boats.

Water Access to Little River

Little River is a small, narrow 2.5-mile tributary of the Androscoggin River on the border of Lisbon and Topsham. Little River is used for small boats, wildlife watching, and trout fishing. The tributary is special in that it is very remote and isolated. The Brunswick Topsham Land Trust has established access to the Little River within Topsham, by preserving a 4.7 acre parcel with 1,500 feet of shore frontage, accessed off Route 196 on the Topsham-Lisbon boundary.

Water Access to the Cathance River

The Head of Tide Park, created in 2011, is the only publicly-owned waterfront park in Topsham. Located on Cathance Road, the five-acre park built in collaboration with the Brunswick Topsham Land Trust (BTLT) provides opportunities for hikers, canoeists, and picnickers to enjoy wildlife, fishing, duck hunting, and access to tidal waters. The park also includes two pavilions for picnicking, handicap-accessible outhouses, access to the upper and lower Cathance River, and hiking trails that meander through private easements to the Cathance River Corridor Historical Trail. Parking and daylight access to the Head of Tide Park are available to the public.

To improve access to and awareness of the Cathance River, the Cathance River Education Alliance (CREA) was formed in 2000 following an agreement between Central Topsham Associates, LLC and the citizens' group Topsham's Future to establish the 235-acre Cathance River Preserve. This large parcel of land along the Cathance River is used by CREA as the base for nature-based education programs and resources. CREA works with schools and the public to promote hands-on learning and ecological awareness. In addition to its

school component, CREA offers community programming and events, open hours of its ecology center, spring and summer camps, and environmental youth leadership programs.

The Town also owns the Rogers property (across the Cathance Road from the water tower), which abuts the Highlands North property along the shores of the Cathance River. This 32-acre parcel features 1,300 feet of undeveloped shoreline and was acquired by the Town through an easement. The parcel is part of a set of Brunswick Topsham Land Trust (BTLT) properties that serve to protect an important recreation and wildlife conservation corridor from the Cathance River Preserve to Head of Tide Park. Currently the property contains a small network of public trails, including the Cathance River Trail, a through trail along the river. In 2012 the Town of Topsham, via the Topsham Conservation Commission's Town Owned Land Inventory Report, donated five Cathance River frontage town-owned parcels to the BTLT to be preserved in perpetuity with public access allowance. In total this amounts to over 90 acres of land along the Cathance River that is forever protected and publicly accessible.

In looking forward, the Parks and Recreation Department is pursuing grant money to create local water access to the Upper Cathance and Upper Androscoggin areas.

Transportation

This chapter of the Topsham Comprehensive Plan is a portion of the Inventory and Analysis section of the plan. The purpose of this section is to provide a current status of the transportation systems within Topsham and the surrounding region.

This Chapter is organized into three sections:

1. Local Street Networks and Safety
2. Regional Context
3. Alternative Modes of Transportation

LOCAL STREET NETWORKS AND SAFETY

Topsham's transportation network relies heavily upon a street network that has been planned to move vehicular traffic efficiently. Although in recent years there has been a focus of inclusion of all users within the street network, currently the singular mode of preferred travel within Topsham is the automobile. This is partially due to Topsham's geographic location, which serves as a major crossroad of state routes and interstate corridors. With this distinction, the Town suffers from the paradox of providing easy access for commuters and visitors, while the local in-town traveler has difficulty traveling around town. This difficulty of travel is especially acute for those who are not using an automobile for travel.

The types of streets in Topsham and their functionality varies dramatically, from the long private residential gravel lane to the high-speed Interstate highway (I-295) which bi-sects the Town. The major transportation routes that connect and pass through Topsham may be beneficial to the Town's role as a regional service center, yet the design and function of streets and the transportation network also impacts the lives of the people who live in Topsham. Future planning and investment in the transportation network should be approached with a sense of equity and balance for all users of the system, so residents of all ages can be connected to the entire Town.

Local Streets and Sidewalks

The Town maintains a total of 85 miles of roads and streets and nearly 13.5 miles of sidewalks, primarily located along urban arterials where the potential conflict between vehicles and pedestrians is greatest. Many of Topsham's existing neighborhoods do not have sidewalks, though some newer neighborhood developments have included sidewalk facilities. The Town's current subdivision standards require street connectivity. Current subdivision standards prohibit dead-end streets, unless a waiver is submitted and approved by the Planning Board.

The Town does not currently have a Complete Streets Policy, however the Climate Action Plan (2012), developed by the Topsham Sustainability Committee, recommends implementing one.

In 2016, the Town began a transportation study of the Topsham Fair Mall (TFM) area. The master plan was initiated to strategize multi-modal improvements to this center of commercial activity, with an objective to make the area safe and balanced amongst various modes of transportation. In addition to transportation modeling and analysis, public outreach events were held, informing the plan's recommendations. Using a combination of public input, a report of existing conditions, and an analysis of future capacity, the following key findings resulted:

1. Desire for a more local feel/reflection to the Topsham community through:
   - Improved pedestrian facilities
   - Enhanced landscaped areas (more trees)
   - Improved/thematic signage through mall area;
2. Four lane road sections beyond the "Hannaford" intersection are unnecessary given future growth/ capacity projections, found in the study;

3. Current pedestrian facilities are either non-existent or lack safe accommodating facilities both in the public and private realm; and,
4. Retrofitting Topsham Fair Mall Road (TFMR) as a more town like street is an important infrastructure investment to maintain the commercial viability of the TFM.

In the existing conditions report, the plan conducted volume counts for pedestrians and bicyclists during the area's peak hours. The pedestrian volumes are low, and only one bicyclist was recorded. These findings provide substantiation for the plan's goals, which are broken into categories of safety, aesthetics, and better planning. The safety category lists these measures:

- Calm traffic and speeds - while meeting existing and future capacity needs for diverse growth;
- Reduce points of conflict on TFMR and adjacent sites. Create intuitive and functional vehicular and pedestrian patterns;
- Make accommodations for safe bicycle/and pedestrian connections; and,
- Encourage people to walk and bike within and to the study area. Foot traffic = increased financial sustainability and integration with community.

In order to achieve the safety measures prioritized in the master plan, some specific recommendations for changes to TFMR specifically addressing pedestrian and bicycle safety including adding crosswalks, bicycle lanes, and shared use paths in strategic locations.

The TFM Road Transportation Master Plan is being utilized by the Planning Office, landowners and Planning Board during project review. Implementation of the plan is a long term goal of the community, working in tandem with the ongoing development in the mall area. The visioning work conducted during the Plan Your Topsham public design charrette builds off of this study and the two efforts should support each other. Key recommendations of the study should be reviewed for consistency, and adjusted if necessary.

Rail Network

Topsham has two railroad freight lines that provide inter-city connectivity to both Augusta and Bangor, and Lewiston. Both lines are not being actively operated. The Kennebec Valley Railroad line is owned by the Maine Department of Transportation (MDOT), and connects Brunswick and Topsham to Augusta and Bangor. The line traverses the Androscoggin River south of the Frank J. Wood Bridge, runs adjacent then under the Coastal Connector, and continues north through the Cathance up the Kennebec River Valley to Augusta and Bangor. This line has no operator. The MDOT has kept the rail line to Augusta serviceable, but there has been no freight service on this line since the closure of the Maine Yankee Nuclear Power Plant in Wiscasset in 1996.

The second rail line located in Topsham is called the Lewiston Branch of the Maine Central Railroad (formerly the Androscoggin Railroad), connecting Brunswick and Pejepscot Mills in Topsham to Lisbon Falls, Lisbon and Lewiston. The line is also owned by MDOT, but operated by Pan Am Railroad (Maine State Freight System, 2016). According to the Town Manager, this line was last serviced about 10 years ago, including improvements to the rail bed, rails and drainage (other work may have been done at that time, but Topsham was not a party to the project). The rail line has been paved over as the line approaches Lisbon, so no service to Lewiston is currently possible without remedial work. One local business, Grimmel Metal Recycling, has utilized, or attempted to utilize rail to service its facility, but regular service has not proved possible.

Integration of Pedestrian and Bicycle Facilities into the Community's Transportation Network

Topsham's local streets policies support development of new pedestrian facilities as part of site plan and subdivision review, though the Town has not yet adopted a formal Complete Streets policy.

Some notable pedestrian and bicycle facilities include the Androscoggin River Path, the Merrymeeting Trail, and the new Topsham Trails Multi Use Path. a shared use rail-with-trail. The Androscoggin River Path is a 2.6 mile 14-foot wide mixed-use path that connects Brunswick to the Cook's Corner area, with access to the bike path from Topsham via the Merrymeeting Bridge and via Elm Street. The Merrymeeting Trail is a planned 32-mile regional rail-with-trail from Topsham through Bowdoinham and Richmond to Gardiner. The Topsham Trails Multi Use Path is a four-phase project expanding connectivity and mobility from the Topsham Fair Mall to the Androscoggin River Path. So far, the trail has been completed through Phase 1A, creating a path that travels alongside Monument Place from the Topsham Fair Mall Road, crosses Main Street at the Town Hall location, and continues alongside the Coastal Connector until it reaches Community Way (Topsham Fairgrounds and Highlands). The path has been well utilized, verifying support for its future phases.

In 2013, the Town's Lower Village Development Committee conducted the Topsham Town Landing Trails Feasibility Study. The goal of the study was to identify a preferred route extending upstream and downstream from the existing Lower Village urban core. The waterfront in Topsham is inaccessible and underutilized, and this plan arose from the desire to not only take advantage of the waterfront but also create a riverfront network connecting the Riverwalk trailhead eventually to the Town's bike path. With the recommendations of the study, Topsham would be able to provide open public access to approximately 635 linear feet of riverfront, to improve approximately 900 linear feet of existing path along river edge and to construct approximately 850 linear feet of new path and/or extensions. The goals of this plan were to substantiate the possibility of generating commercial development in a walkable lower village, providing the Town with a park that includes river access, and to promote and protect non-vehicular mobility for the Town's residents and visitors.

Street design and acceptance standards are found within Chapter 185 of the Topsham Code. When subdivisions are reviewed by the Town the standards of this section

are reviewed for compliance. The town defines the following roads:

1. Arterial
2. Collector
3. Local Major Access
4. Local Minor Access
5. Private Road

The Definitions are based upon function of the street and the average daily trips the street is intended to carry.

REGIONAL CONTEXT

Network of Arterial Roadways

Route 196: Route 196 is the backbone of the Town's transportation network, especially the length of road between I-95 and Main Street (Route 201). The Rt 196 Corridor Plan developed in 2013 identifies the western portion of the corridor as, "[representing] one third of a regionally significant transportation corridor between Topsham/Brunswick and Lewiston/Auburn. Officially designated by the Maine State Legislature as a "Corridor of Economic Significance", this route connects not only the two major population centers but also includes all of Lisbon's villages and commercial areas" (Wright Pierce, 2013). Nearly all of the arterials and collector streets feed into this short corridor located between the I-295 interchange and the Lisbon town line. The Topsham section extends approximately 5 miles, a little more than one third the distance between the Topsham I-295 interchange and the Lewiston I-95 interchange. As part of a larger regional connector between Topsham/Brunswick and Lewiston/Auburn, the corridor bears the burden of high commuter volumes; locally, it is a largely low-density corridor characterized as a predominantly wooded route with high speeds, serving several residential neighborhoods, small businesses, and the Town's only Industrial Zone.

Route 196 experiences congestion due to commuter traffic that gets stalled by traffic lights and attempts to compensate for lost time by taking advantage of the high speeds and low levels of turning traffic, particularly in the section between the Topsham Fair Mall area and Lewiston's I-95 interchange. Historically, there was an issue with traffic congestion related to users on Route 196 trying to access the Topsham Fair Mall. This was addressed by the creation of an egress road, Monument Place, in 2007 as recommended by the 2005 Topsham Transportation Plan.

Coastal Connector: The Coastal Connector was built in 1998 to alleviate some of the traffic congestion on Route 196 and to improve safety. The Connector extends Route 196 from its intersection with Main Street (Route 201) and across the Androscoggin River to Route 1. The Coastal Connector has relatively maintained its level of usage since it first opened, with most recent counts showing an Average Annual Daily Traffic (AADT) volume of 8,990 vehicles at the intersection of the bypass with Route 201, as reported in 2013.

Route 24: Route 24 is a 44-mile state highway providing access through the central coast area. Route 24 starts in Harpswell and runs through Brunswick, Topsham, Bowdoinham, Richmond, terminating in Gardiner. Along its path, Route 24 primarily overlaps with Route 1 and Route 196. Route 24 was modified in order to bypass downtown Brunswick, merging with Route 1 and then Route 196 to cross into Topsham via the Coastal Connector. Once across the Androscoggin River, Route 24 diverges off of Route 196 eastward at Middlesex Road, crossing into Bowdoinham along the coast. According to MDOT annual traffic count reports, Route 24 maintains a relatively low number of vehicles when compared to the other state routes that traverse the area. Where Route 24 runs along the bypass, traffic counts report an AADT of approximately 3,500 vehicles in 2013. There is a spike in vehicles where Route 24 splits off of the bypass. The intersection of Bypass Drive and Route 24 increases to an AADT of 7,400 vehicles, as reported in 2013. This peak traffic location along Route 24 also correlates with one of the top high crash locations in Topsham from 2015-2017, with a total of 12 crashes reported in that timespan at the intersections of Bypass Drive, Bypass Road, and Middlesex Road (MDOT Public Crash Query Tool). Further along Route 24's section through Topsham traffic reduces again, with an AADT of 2,020 vehicles reported in 2013 at the intersection of Route 24 and Old Middlesex Road.

Route 201: Route 201 (US 201) is a spur route of Route 1 (US 1) beginning in Brunswick at the intersection of Maine Street, and continuing north for 157 miles throughout the entire state, ending at the border of Quebec. Route 201 is distinct in that it is Maine's sole intrastate highway, and one of the few remaining of such routes in the country. Route 201 is known for its scenic views and as an alternative route to enter Canada. Because of the connection it provides, Route 201 still serves a role as a trade route between Canada and the US. In Topsham, Route 201 is also Main Street, and because of this the traffic counts are higher in the Lower Village area, starting at its origination in Brunswick. As Route 201 intersects with Elm Street, traffic counts report an AADT of 12,070 vehicles as reported in 2013. North of Elm Street, however, traffic diminishes, with an average count of around 5,875 vehicles along the remainder of its portion in Topsham, as reported in 2013.

Budgeting for Roads

The Town has incorporated annual allocations into its Capital Improvement Plan for the funding of road reconstruction.

Topsham's most recent road reconstruction budgets have totaled:

- $400,000 in Fiscal Year 2016
- $450,000 in Fiscal Year 2017
- $500,000 in Fiscal Year 2018, with an additional $250,000 allocated for the drainage work under Main Street

With current projections, which are based on what is known about equipment replacement, bond payments, and other capital needs, the Town expects the future road reconstruction budget to be:

- $500,000 in Fiscal Year 2019
- $600,000 in Fiscal Year 2020
- $350,000 in Fiscal Year 2021
- $550,000 in Fiscal Year 2022
- $500,000 in Fiscal Year 2023
- $550,000 in Fiscal Year 2024
- $450,000 in Fiscal Year 2025
- $800,000 in Fiscal Year 2026

With the future transportation budget, the Department of Public Works Director has expressed the priority of increasing its workforce. The department expects to be short one or two people in the next 10 years, due to turnover caused by attrition, and so is looking to expand its staff from 10 employees to 12 employees. According to the department, its equipment maintenance and replacement schedule is up to date and sufficient.

MDOT Investments in Topsham

The Maine Department of Transportation (MDOT) creates three-year work plans outlining the projects and activities they are planning on a Town-wide basis. The plan includes: capital projects and programs; maintenance and operations projects, and activities; and, all the administrative functions of the department. The most recent MDOT Work Plan, covering the years 2018-2020 includes several projects solely in Topsham and several others in regions that include Topsham.

The projects outlined for 2018 include:

- Bicycle-pedestrian improvements between the Swinging Bridge and the Frank J. Wood Bridge;
- Bridge and structural maintenance to the Muddy River Bridge;
- Custodial maintenance along Route 1, Route 196, and Route 24;
- Converting maintenance buildings to LED lighting in Topsham and Gray; and,
- Paving of Meadow Road beginning at Route 201 and extending north.

The projects outlined for 2019/2020 include:

- Removal of the Edgecomb Bridge between Topsham and Lisbon;
- Replacement of the Frank J. Wood Bridge, a two-year project that is unique in that it will be able to remain open for use for 1.5 years until the last six months of the project which will require its closure;
- Highway safety improvements and intersection improvements at the intersection of Route 201 and Route 24; and,
- Highway safety improvements along the Interstate 295 corridor between Falmouth and Topsham.

Transportation System Concerns in the Community and Region

Locally, Topsham experiences safety issues due to the concentration of traffic that flows in and out of the community on arterial roads connecting to state highways. The way the state roads are designed with multiple lanes merging and diverging creates local traffic issues. For example, the Coastal Connector can create a bottleneck traffic pattern caused by several changes in the number of lanes on Route 196. Additionally, the Topsham Police Department has reported a number of crashes at merge points due to competitive driver behavior. Any issues regarding state roads must be addressed in partnership with the state's Department of Transportation (MDOT). Topsham's Department of Public Works does not have jurisdiction to make direct changes to MDOT roadways without MDOT approval.

Conflicts Caused by Multiple Road Uses

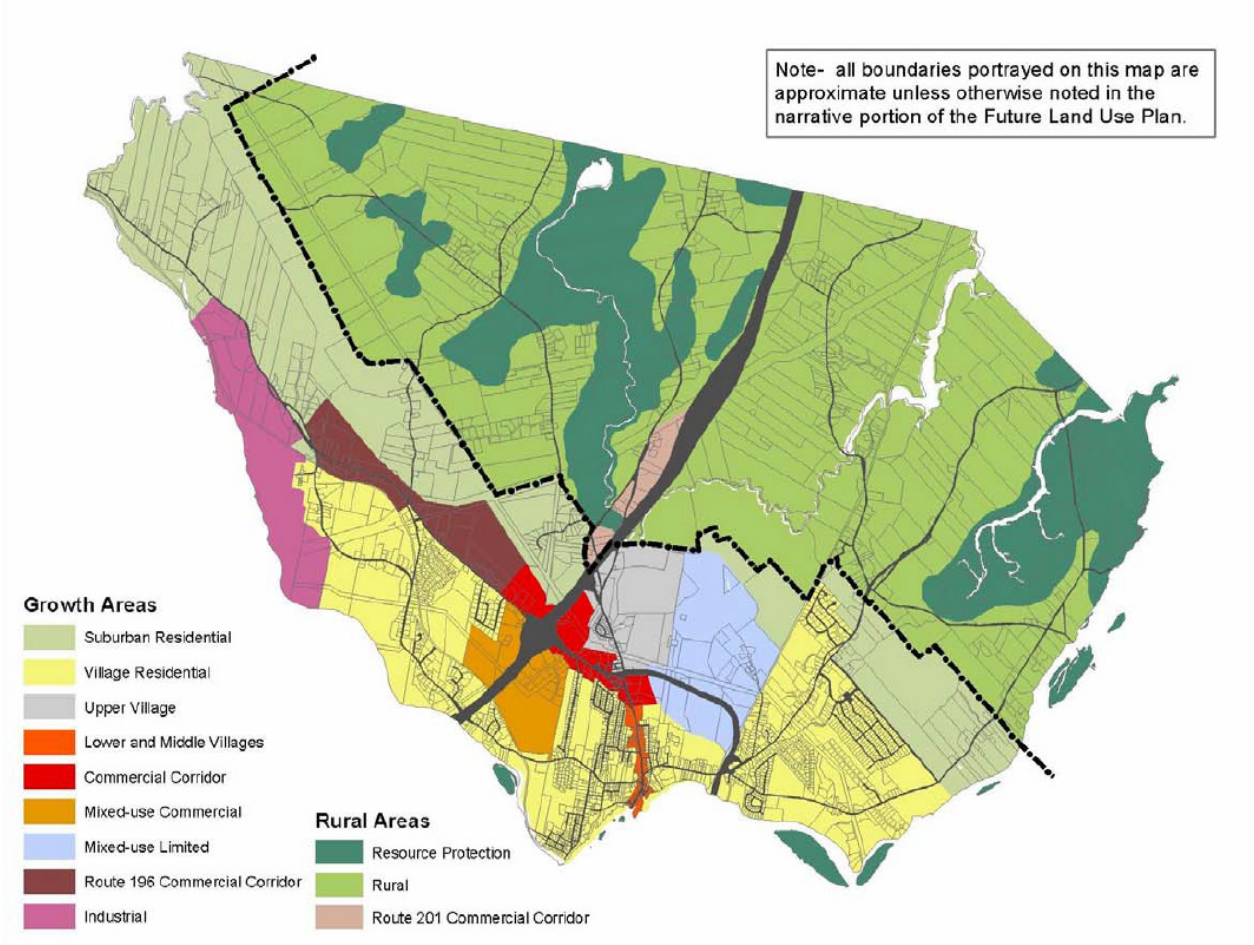
To avoid issues caused by regional connectors, particularly Route 196, local residents take alternative roads, such as Winter and Summer streets, to access major destinations like the Mall and Brunswick. This in itself can cause conflicts between a road's intended use and actual use. For example, Winter Street is being used by delivery and commuter traffic that is avoiding Main Street traffic but then overloading a road intended for residential use. Similar issues arise from the conflict of uses on River Road, which picks up commuters from Lewiston.

Network Safety

A number of High Crash Locations are located in Topsham, particularly involving intersections of local streets with regional routes. MDOT High Crash Locations data referenced herein are from 2015-2017 (MDOT Public Crash Query Tool). High Crash Locations data tracks accidents and measures potential safety problems by looking at the total number of accidents in a location and comparing this to the number that may be expected given the type of roadway involved and its traffic volume.

Location	Total Crashes	Percent Injury	Fatalities	Injuries
Int. Lewiston Rd Ramp A off to Lewiston Rd	13	30.8	0	4
Int. Hamilton Court and Monument Pl	9	22.2	0	2
Int. Bypass Dr and Bypass Rd and Middlesex Rd	12	16.7	0	3
Int. Lewiston Rd ramp F1070 RD INV 23G1070	33	33.3	0	14

Between 2015 and 2017, nearly all of Topsham's high crash locations were located in the Route 196 corridor between Interstate-95 and the Coastal Connector. High traffic volumes, stoplights, curb cuts, multi-lane roads, and other traffic and design conditions are prevalent in this corridor.



Above, the 2007 Comprehensive Plan Designated Growth map.

Network Capacity

To better understand the implications of local and regional traffic growth on the Town's street network, a Town-wide transportation study was conducted in 2005. The study projected potential future development in Topsham and assessed the traffic implications of growth in combination with growth in background traffic volumes through 2024. The study recommended the implementation of two network improvements that have since been constructed: the construction of a connector road from Topsham Fair Mall Road to Monument Place; and, the Routes 201/196 Eastern Connector.

In addition to the 2005 study, two in-depth studies of state arterials were completed in 2013, including the Route 196 Corridor Plan (Wright Pierce, 2013), and the Route 24 Corridor Management Plan (Midcoast Council of Governments, 2013).

Route 196 Corridor Plan

The Route 196 Corridor Plan addresses the western portion of the corridor between I-295 and the Lisbon Town line. The objectives of this plan include:

- Create a Route 196 Corridor Plan, to supplement the Comprehensive Plan;
- Define a vision for the future of this corridor;
- Assess issues of land use and future growth, transportation, utilities, visual character, and zoning;
- Coordinate with state and regional agencies, and other partners;
- Develop a set of recommendations in support of the vision, identifying short-term and long-term strategies; and
- Designate priorities for the implementation of the Corridor Plan.

The 2007 Comprehensive Plan envisioned significant suburban residential and commercial growth on and adjacent to the corridor, with designated growth areas extending the entire western length of the corridor (see map above). The plan defines an outer corridor and inner corridor, and draws the following vision based on the 2007 Comprehensive Plan:

> "Generally this corridor should be managed and developed to have a parkway aesthetic, emphasizing limited (or shared) access points for turning traffic and a landscaped or tree-lined visual character. For future growth, the section between I-295 and Pejepscot should support more commercial development, while the outer corridor towards Lisbon should support low to medium density residential and the industrial uses between Route 196 and the river."

The Town may want to revisit the visions of the 2013 corridor study to ensure the visions align with the visions of this Comprehensive Plan update. Statements such as these, for example, may no longer reflect the community's desired vision for growth and prioritization of infrastructure expenditures:

- "The commercial growth opportunities envisioned in this area could support the need to expand utilities. This vision is echoed in the Town's 2006 study and recommendations on the I-295/Route 196 Intersection (see 1.4 Related Studies, below). The significant costs to extending infrastructure to this area warrant a combination of public and private investment."
- "The road itself is likely to see substantial changes as traffic increases with development and regional transportation demands; the Town should prepare to see additional lanes added…"

Route 24 Corridor Management Plan

The Route 24 Corridor Management Plan was developed by the Midcoast Council of Governments (MCOG) based on a recommendation of the Statewide Long Range Transportation Plan, Connecting Maine 2008 – 2030. Connecting Maine identified Route 24 as a Priority #2 Corridor of Regional Economic Significance. The purpose of the corridor plan is to define a prioritized list of transportation strategies and guide investment to meet the following regional objectives:

- Ensure safe travel for all corridor users, including vehicle drivers, pedestrians and bicyclists;
- Maintain the capacity of the corridor;
- Provide coordinated signage and marketing;
- Address storm surge and future inundation, particularly with regard to emergency routes; and
- Re-route Route 24 out of the downtowns of Brunswick and Topsham to remedy high traffic impacts, with consideration for Business 24 designation of the existing route in those Towns.

The corridor plan cites the 2007 Comprehensive Plan's vision for the area as follows:

> "The comprehensive plan proposes that redevelopment in the lower and middle village areas complement the existing dense, mixed-use pedestrian scaled village, and that the Town ensure traffic along Main Street is not harmful to the pedestrian-oriented businesses in the Lower, Middle, and Upper Villages. Route 24 in Topsham goes through residential zones (Urban, Suburban and Residential), as well as mixed use, pedestrian scale areas (Lower Village and Middle Village (Figure 12)."

The vision for Main Street (Lower, center, Upper) expressed in this Comprehensive Plan update is consistent with the 2007 vision. The corridor plan's recommendations to rehabilitate or replace the Frank J. Wood bridge and to re-route Route 24 traffic off Main Street in Topsham aligns with this Comprehensive Plan update.

Parking Issues

The Town of Topsham does not have any issues with the availability or operation of municipal parking in the community. Topsham has a large off-street surface parking lot at the Municipal Complex, in addition to a generously sized lot at the Topsham Library. The small parking lot at Green Street is undesignated in terms of use/function and has historically served to provide a meeting point for ride shares to BIW. There are no municipal or state-designated park and ride facilities in Topsham, however Go Maine has an arrangement with Home Depot on Topsham Fair Mall Road to provide 40 parking spaces and two handicapped parking spaces for ride share (updated 9/2017, GoMaine.org).

In 2017, the Town, TDI and the Lower Village Development Committee inventoried available on-street and off-street parking (both private and public) to better understand the parking assets and opportunities in the Lower Village. The inventory identified the following: 355 Designated Parking Spaces; 7 Potential Parking Spaces; 124 Opportunistic Parking Spaces; and 45 Public Parking Spaces. Opportunistic parking means the space is owned by a landowner, and understood to be generally available to the public for purposes of frequenting local businesses, walking trails or serving as parking or overflow parking for any special events. Information gathered from this inventory can support future economic development efforts, project permitting and site plan review.

Parking Standards and Impact to Development

Over the years the Town has been moving towards reduced parking standards. This policy change aligns with the nationwide trend to re-evaluate how much parking we are requiring developers to build. According to the Planning Department, the Planning Board considered amendments to set maximum parking standards, but chose not to adopt proposed new standards. Applicants currently have three potential options to achieve reductions in parking: 1) request a waiver of parking standards from the Planning Board; 2) create a parking plan based on known data for use; and/or, 2) during site plan review, request that an area of the site be reserved for future parking if/should additional parking spaces be needed.

To date, the largest private lot constructed in the Lower Village occurred in tandem with the 2005 renovation of the Bowdoin Mill and adjacent buildings. The developer acquired land from private owners and the Town to meet the required parking standards. Even though parking standards have since been relaxed, the ongoing predominant trend in Topsham is to still overbuild regardless of location in the village or suburban commercial corridor context. However, River Landing, an age restricted (55+) affordable housing development constructed in 2015, counters this trend. The context of the project (walkable neighborhood) combined with target market demographic (55+) meant the project could support reduced parking provisions.

Local Transportation Initiatives

A number of local and state initiatives have been undertaken in Topsham influencing how people move about the community today. The Climate Action Plan (2012), developed by Sustainable Topsham (a sub-committee of the Conservation Commission) encourages bicycling and walking as a safe and efficient means to travel around Topsham. The Climate Action Plan identified a number of actions for the Town to take in order to reduce greenhouse gas emissions by 2020, including, "Encourage bicycling and walking as a safe and efficient means to travel around Topsham". The plan includes specific strategies to help achieve its goals, including support for the adoption of a Complete Streets policy. The Climate Action plan has been adopted by the Board of Selectmen.

The MSAD 75 has engaged in the Maine's Safe Routes to School program (SRTS) to support and encourage children to walk and bike to school. Efforts undertaken by the district's School Health Coordinator have included

Walk to School days and Walkability Audits to determine potential expansion of walking routes to school. Through the auditing process, MSAD 75 was able to use models from SRTS to run several Walking School Bus (WSB) events, in which groups of children are accompanied on the walk to school each morning by trained adult volunteers. Because so many of the district's schools are not in a safe walking zone, MSAD 75 decided to promote an After School Bike Club at the Mt Ararat Middle School. The club operates with the assistance of community volunteers from the Merrymeeting Wheelers, student mentors from Bowdoin College, and trained bicycle instructors from the Bike Coalition of Maine.

ALTERNATIVE MODES OF TRANSPORTATION

Adequacy of Available Community Transit Services

The need to provide alternative transportation services was also cited as a key issue in the 2016 Aging in Place study, conducted in partnership with the Town, Spectrum Generations and AARP. Survey respondents identified the lack of public transportation in Topsham as a challenge for aging in place. Just under half of the 302 survey respondents said it is, "Extremely or Very important" that Topsham has a bus service. Similar percentages of respondents said it is "Extremely or Very important" that Topsham has Coastal Trans, a taxi service, and the Volunteer Transportation Network (VTN). Topsham's Climate Action Plan also cites the promotion of public transit, working collaboratively with regional stakeholders, as a recommended action that can both address climate change and provide a beneficial public service for residents, employees, and visitors.

Community transit service for Topsham residents is significantly limited. The Coastal Trans service was discontinued on April 22nd, 2016, after losing its primary income source from Maine Care Services ridership. Maine Care patients accounted for approximately 75% of Coastal Trans ridership (MCH Executive Director, Lee Karker, in Bangor Daily News, March 24, 2016). In 2013, the State switched to a new transportation brokerage system for its Maine Care members. Topsham is now served by Midcoast Connector, which is a transportation broker that works with various taxi companies in the area to provide rides to Maine Care members.

Just across the bridge, the Brunswick Explorer provides a valuable transportation amenity to residents in Brunswick. This service currently does not cross the bridge to serve Topsham destinations.

Passenger Rail

The nearest passenger rail service available to Topsham residents is provided by the Amtrak Downeaster with service between Boston and Brunswick. Expansion discussions ebb and flow, with potential for seasonal expansion connecting Boston to Rockland. Northern New England Passenger Rail Authority (NNEPRA) is currently adding a second track along the line in Cumberland and Falmouth, enabling the Downeaster to expand its number of daily roundtrips.