

# Town of Windham

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**Comprehensive Plan Review Team #11  
RSU Superintendents Office Building,  
1<sup>st</sup> Floor Conference Room (School Road Entrance)  
7:00 PM, Thursday, October 1, 2015**

## AGENDA

1. Public Comment/Review Team Comments from the Public
2. Summary of last meeting: July 30
  - a. Transportation chapter
  - b. Public Facilities & Services chapter
3. Review of draft Inventory Chapters
  - a. Revisions not complete:
    1. Recreation, Parks & Open Space
    2. Agriculture & Forestry
    3. Public Facilities & Services
  - b. Revisions complete for this meeting:
    1. Transportation (maps not done, private road section not done)
    2. Economy
  - c. New chapter for this meeting
    1. Housing
    2. Water & Natural Resources
4. Upcoming meetings:
  - a. Review Team meeting – August 20 (3<sup>rd</sup> Thursday)
    1. Fiscal Capacity & Capital Investment Plan

**Comprehensive Master Plan  
Review Team  
July 30, 2015 Meeting**

Team Members present were: Mike Duffy, Allen Phinney, Dave Lavigne, Dave Nadeau, Sparky Hurgin, and Frayla Schoenfeld.

Planning Director, Ben Smith, and Planner, Amanda Lessard, were also present with Steph Carver, from Greater Portland Council of Governments (GPCOG).

Comments

Summerfest

- The Summerfest booth was in a location off the main path between food and rides, so participation on the Trivia Challenge was poor.
- Thank you to Review Team members who assisted at the booth – Allen Phinney, Dave Nadeau, Marge Govoni.

Summary of Last meeting

Economic Development Draft Chapter

- Staff heard from WEDC and Review Team members after the Review Team meeting in June when this chapter was discussed. Those comments will be included in the revision of the chapter along with comments from the Review Team meeting.

Revisions – still needed

- The Survey and Fall Forums had much input regarding Recreation, Parks & Open Space, and Agriculture & Forestry chapters. Both chapters were very data driven with lots of statistics.
- Economy – see above.

New Chapters

Transportation

- Elaborate relationship of PACTS to road funding.
- MPI projects – list this in chapter
- More information required
  - Bridges – needed more information on inspection /rating.
  - Sidewalk Locations – Page 9, not on both sides of Route 302.
  - Impact Fees – Sidewalk, Route 302 North
  - All of the policies in the draft chapter are required by state, and are underlined. Goals come from 2 main sources:
    - The Town has adopted two major transportation/land use plans since 2010 – the 21<sup>st</sup> Century Downtown Plan and the Route 302 North Plan.
    - Town-side survey on identified traffic congestion in North Windham and related issues and the importance of preserving the accessibility of services within North Windham and the connections to the Portland areas as very important.

The Review Team had a conversation about 21<sup>st</sup> Century Plan improvements for Route 302. Preliminary engineering work for Route 302 is planned to take place this winter:

- Medians
- Entrances
- Sidewalks

Ben would add strategy to improve safety of significant high-crash intersections/sections to Policy 3.

Private Roads are not discussed in this draft:

- Private developments (in subdivision and outside subdivision review) are creating more private roads.
  - School buses don't travel on private roads, regardless of condition.
  - Mail delivery is not available on private roads.
  - Winter maintenance is an issue on many existing private roads.
  - The Town should have a policy on the public acceptance of streets.
  - Westbrook doesn't allow private roads. All roads are built to the same standard and then the town takes them.

#### Public Facilities

- RSU information was needed.
- Two recent studies had been done:
  - Property Conditions
  - Facilities Space Needs Master Plan

#### Utilities

- Some utilities are more detailed in the Economy Chapter
  - A comment was made that the state goal of 75% of new infrastructure to be in growth areas may not be feasible (page 6)
  - Trash/recycling – Riverside is the only place to do bulk waste. Other options...regional coordination?

The next Review Team meeting was scheduled for August 20<sup>th</sup>.

## Economy

State Goal – Promote an economic climate that increases job opportunities and overall economic well-being.

## Conditions & Trends

### Windham's Economy – A Brief History

The economy of early Windham was focused around the Presumpscot River. The River was a means of transporting goods, including floating King's Pines down to Falmouth, and a source of power for the first saw mills and woolen mills in the settlement of New Marblehead, which later became the Town of Windham. The first settlement in what is now Windham was located along River Road near Anderson Road at the southern end of Town.

The Presumpscot remained the single biggest driver of the local economy through the 1800s. South Windham Village in Windham and Little Falls village in Gorham grew up around the mills located there. Further up the River, the [Oriental Powder Mill](#) located at Gambo Falls in the Newhall area was a major employer in the community for most of that century. Popeville grew up around the mills on the Pleasant River, in the vicinity of Gray Road (Route 202) and Pope Road.

The first half of the 1900s saw both the decline of Windham's large industrial employers along with the rise of the roads as the predominant transportation mode for shipping goods over long distances. Trucks began to replace rail, just as rail had replaced reliance on the [Cumberland & Oxford Canal](#) as a means of transporting goods to markets in Portland and beyond.

By the end of the 1900s, Windham's economic center had moved from South Windham Village to the crossroads of US Route 302 and State Routes 115/35 in North Windham. This new economic center was built around the mobility provided by the automobile.

### Windham's Economy Today

#### *Windham's Role in the Regional Economy*

North Windham plays a significant role in the Greater Portland area's economy as a regional retail center. It is the largest retail center between Portland and Conway, New Hampshire and draws customers from a wide geographic area. North Windham offers convenience shopping, but also the kind of comparison shopping that few communities in our region provide, such as automobile/recreational vehicle sales and home building supplies. The Windham Economic Development Corporation (WEDC) commissioned a retail study in 2012. ~~The Figure 1 below is the "Primary Retail Trade Area Map" below is-~~ from that study.

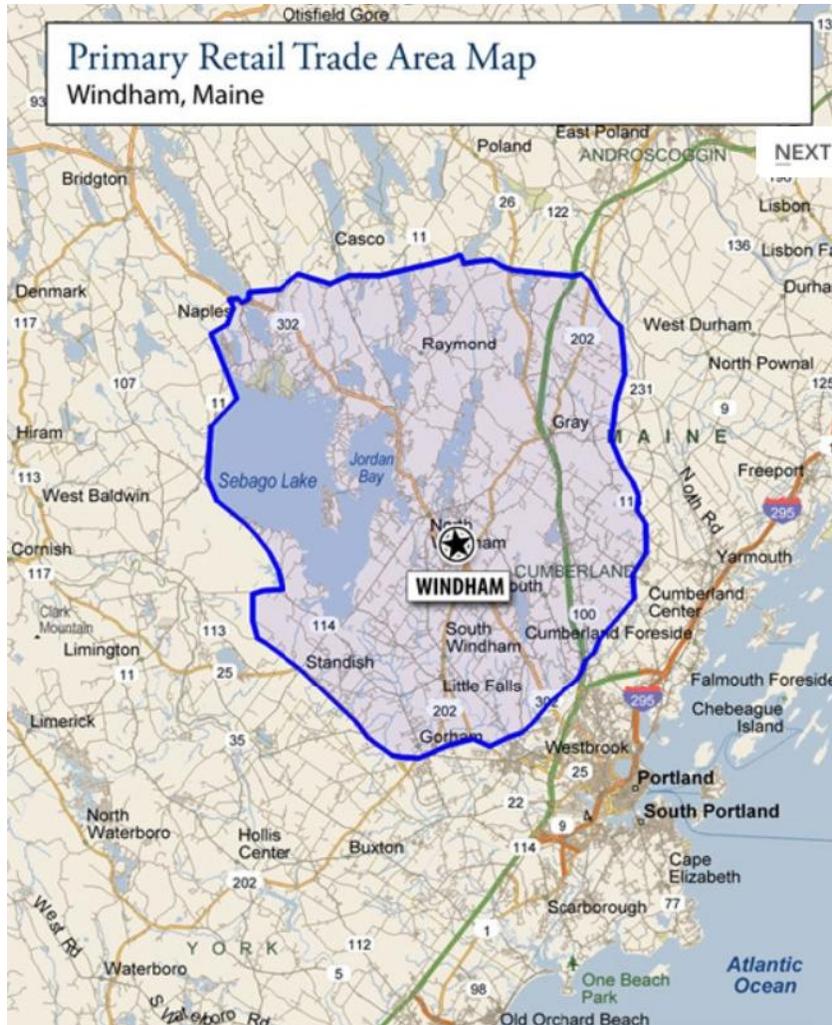


Figure 1 - Retail Trade Area Map from Retail Study, 2012

The Greater Portland Council of Governments (GPCOG-) has been involved in a multi-year regional planning project called Sustain Southern Maine (SSM). One of the first tasks of the SSM project was to identify “Centers of Opportunity,” which are existing commercial or mixed used activity centers that were classified by the types of businesses they contain, and the areas that these centers serve. Though no centers in Windham were among the subset of those identified for further study and technical assistance, this effort did map centers in the Town. A complete map of centers identified, along with a closer view of the centers identified in Windham appear below. The “Centers of Opportunity: Typology” report, dated December 2013, can be [found here. \(fix link\).](#)

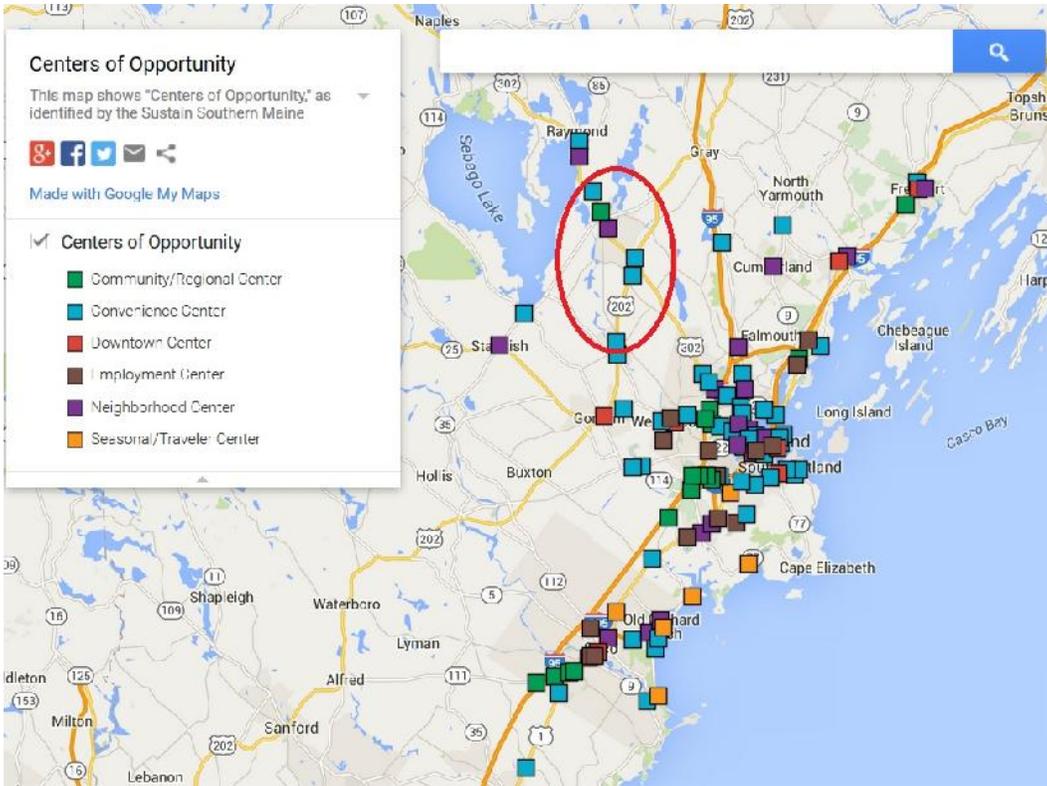


Figure 2 - Regional "Centers of Opportunity," Sustain Southern Maine. Windham "centers" circled in red.

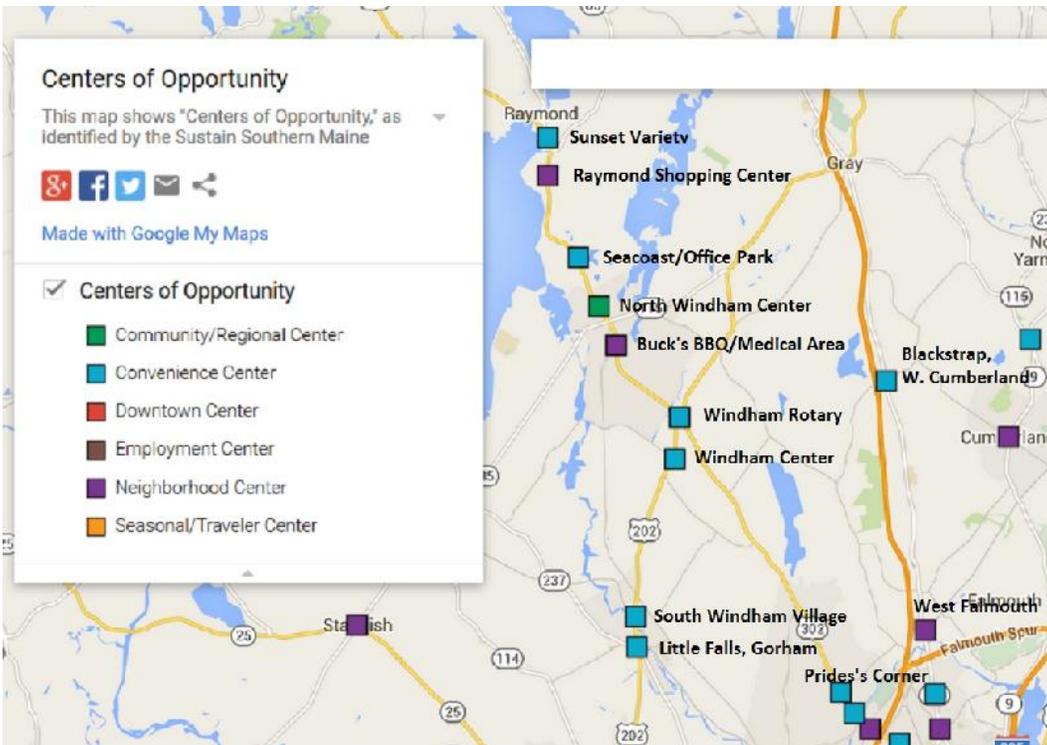


Figure 3 - Windham & other "Centers of Opportunity," Sustain Southern Maine

## Workforce

As might be expected, labor data estimates from different sources and from different dates vary slightly. Source data is noted for all the numbers below in order to put these discrepancies in context.

## Employment

The American Community Survey (2006-2010) from the U.S. Census bureau estimated the employed population at 8,660 in 2010, compared to 8,009 in 2000. This represents an increase of 8%, compared to an increase in the overall population for the same time period of 14%. As noted in the Population & Demographics chapter, this is a reflection of the higher numbers of school age children and those over retirement age in the community.

Figure 3 shows Windham's unemployment rate almost exactly mirrors the County rate (about 6%), and both are consistently and notably lower than the state (about 8%) and the nation (about 9%). This information comes from the Maine Labor Department, and is included in the state data set provided to communities for comprehensive planning purposes.

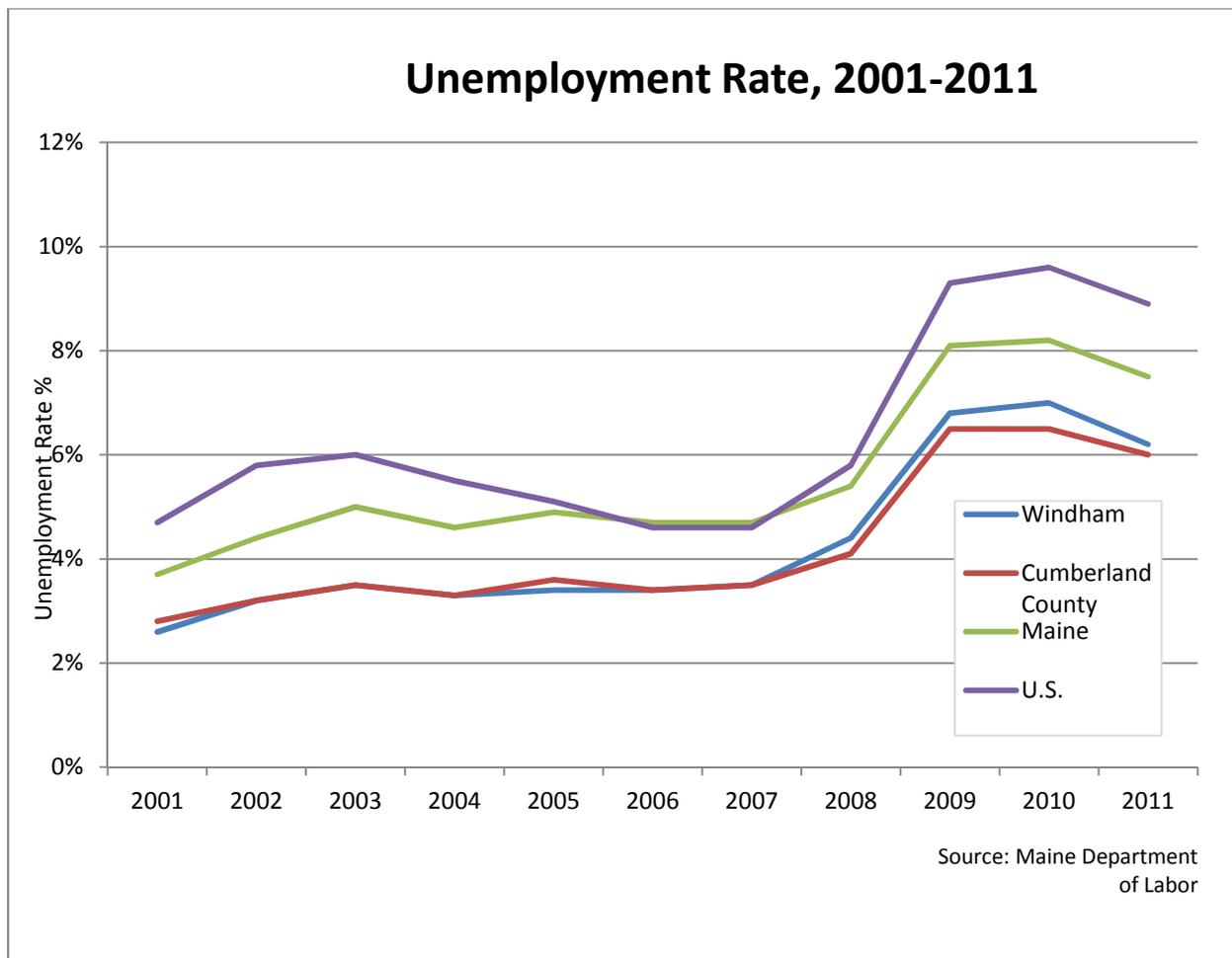


Figure 3 - Unemployment Rate

## Jobs

The Maine Department of Labor estimates the number of jobs in Windham decreased slightly from about 5,162 jobs in 2001, to there were 5,111 jobs in Windham in 2011. This compares with about 6,162 jobs in 2001. This represents a slight decrease in the number of jobs in Windham over that time period. Figure 43, below, was provided by the state data pack for Windham for comprehensive planning purposes. It shows changes in job growth from 2001-2011, which is the change in growth from one year to the next. Any point above zero is growth, any point below zero is decline, and zero means that the job numbers did not change from one year to the next. The numbers are show this modest decrease for the Town, are flat for the state, along with modest overall increases for Cumberland County, New England overall, and the nation. Note tTtwo interesting points items are shown in Figure 43; first, the variability in the Windham line, likely because it is the smallest scale of data shown on the graph, and second, that at all levels the sharp decline in the job growth rate between 2008 and 2009 was followed by an almost equally dramatic “bounce” in the growth rate between 2009 and 2010 and positive growth in 2011. This shows a decline, and then holding at that level, as again this chart shows change from one year to the next, and positive growth in 2011, except in Windham, which saw more continued to see job losses in 2010 and 2011.

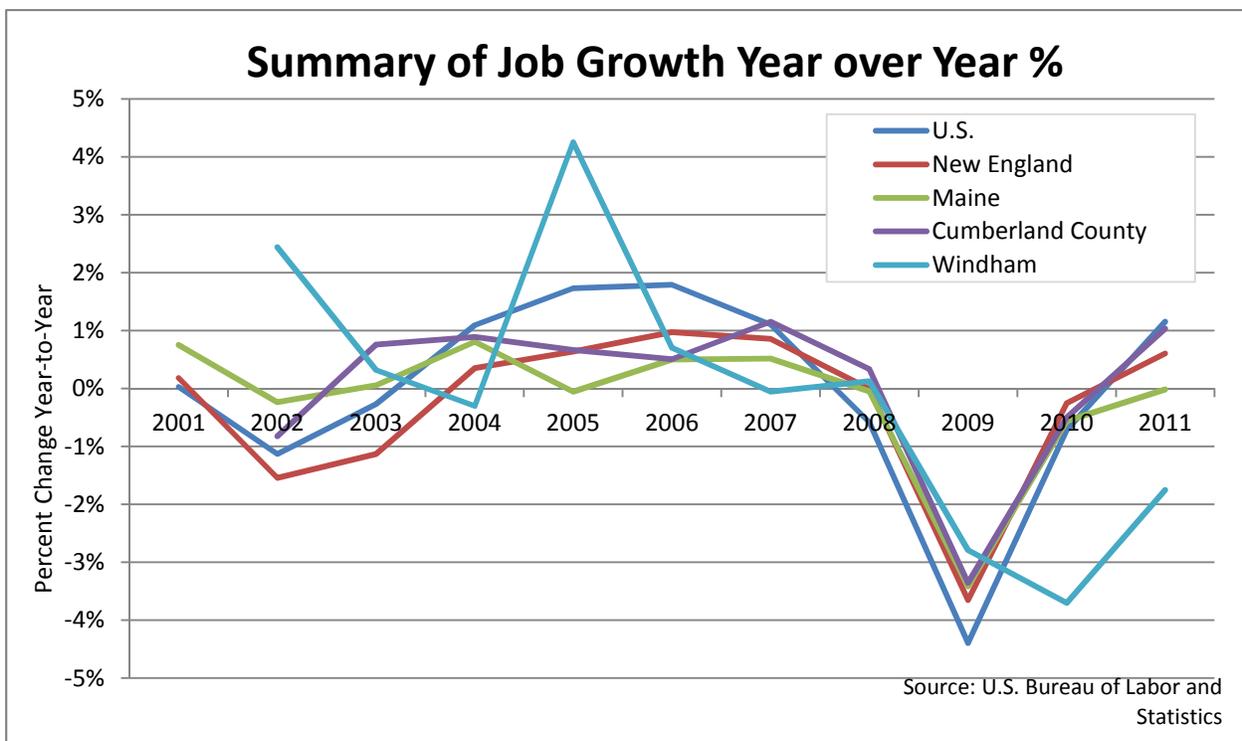


Figure 4 - Job Growth

This chart seems to tell a very different tale from Figure 3 on the preceding page. A relatively low unemployment rate combined with a growing workforce seems to fly in the face of relatively flat job growth. This interesting dichotomy can be explained by a relatively mobile population and growing number of job commuters.

### Employment Distribution

The American Community Survey (2006-~~2000~~2010) from the U.S. Census bureau estimated the employed population at 8,660 in 2010. This is close to the 8,380 estimate used in the Journey to Work data noted in the Population & Demographics Chapter of this Plan. In that chapter, it was noted that about 1,940 Windham workers work in the Town of Windham out of a total of 5,202 jobs, which leaves the Town to deduce that 3,262 Windham jobs are filled by workers from other communities. The table below is ~~synthesized~~ synthesized from data used by GPCOG and the Regional Transit Providers (RTP) in a report of the Lakes Region Bus, so the “jobs filled by...” column is only broken down by municipalities served by the Lakes Region bus, but the numbers are still informative.

Table 1 - Workforce Distribution

| Windham residents work in... |       | Windham jobs are filled by people from... |       |
|------------------------------|-------|---|-------|
| Portland                     | 2,615 | Windham                                   | 1,940 |
| Windham                      | 1,940 | Raymond                                   | 370   |
| South Portland               | 755   | Casco                                     | 300   |
| Westbrook                    | 630   | Naples                                    | 155   |
| Scarborough                  | 330   | Westbrook                                 | 145   |
| Falmouth                     | 290   | Portland                                  | 150   |
| Gorham                       | 290   |   |       |
| Other places                 | 1,810 | Other places                              | 2,142 |
| Total employed               | 8,660 | Total jobs                                | 5,202 |

### Major employers and industries

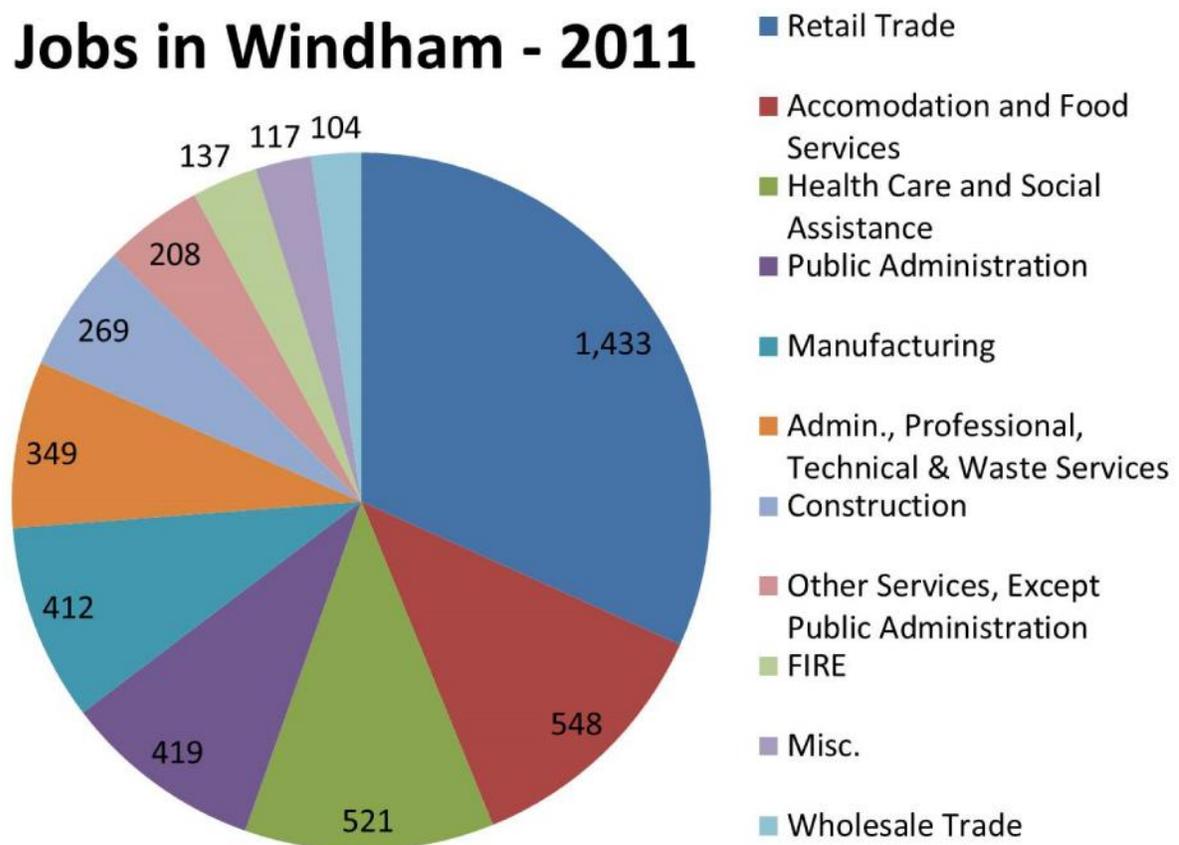
Windham does not have a single large dominating employer, like a mill or shipyard. Rather, the jobs landscape is made up of many small and medium sized employers. The following table shows Windham employers with over ~~100~~ 50 employees in 2012. (Based on the quality of this data, I recommend keeping this to the largest employers – over 100 employees.)

| Employers in Windham with Over 20 Employees (2012)          |               |               |
|---|---------------|---------------|
| Company Name  | Employer Size | Industry      |
| Hannaford Supermarket and Pharmacy                          | 100-249       | Retail        |
| Home Depot  | 100-249       | Retail        |
| Ledgewood Manor Inc.  | 100-249       | Health Care   |
| Lowe's Home Improvement                                     | 100-249       | Retail        |
| Maine Correctional Center                                   | 100-249       | Public        |
| Maine Standards Co.   | 100-249       | Manufacturing |
| Shaw's Supermarket  | 100-249       | Retail        |
| Walmart Supercenter   | 100-249       | Retail        |
| Windham Fire <del>Department</del> Department-Public Safety | 100-249       | Public        |
| Windham High School   | 100-249       | Public        |
| Windham Middle School                                       | 100-249       | Public        |
| Windham Primary School                                      | 100-249       | Public        |
| <u>Hancock Lumber</u>                                       | <u>50-99</u>  |               |

|  |                       |  |  |
|--|-----------------------|--|--|
| <a href="#">Manchester Elementary School</a>     | <a href="#">50-99</a> |  |  |
| <a href="#">McDonald's</a>                       | <a href="#">50-99</a> |  |  |
| <a href="#">Mercy Windham Family Practice</a>    | <a href="#">50-99</a> |  |  |
| <a href="#">Mullen's Driving School</a>          | <a href="#">50-99</a> |  |  |
| <a href="#">New Gloucester Police Department</a> | <a href="#">50-99</a> |  |  |
| <a href="#">Suburban Security Inc.</a>           | <a href="#">50-99</a> |  |  |
| <a href="#">Windham Adult Education</a>          | <a href="#">50-99</a> |  |  |
| <a href="#">Windham Millwork Inc.</a>            | <a href="#">50-99</a> |  |  |
| <a href="#">Windham Millwork Inc.</a>            | <a href="#">50-99</a> |  |  |

In Windham, the single largest sector of the economy by employment is the retail sector (28% of all Windham jobs). This sector employs almost three times as many people as the next leading major sector of the economy in Windham. The other major sectors in Windham are Accommodation & Food Services, Health Care & Social Assistance, Public Administration and Manufacturing round out the top five sectors (10.7%, 10.2%, 8.2% and 8.1% respectively). Again, these are 2011 numbers attributable to the Maine Department of Labor. The chart below shows the size of each sector in Windham.

## Jobs in Windham - 2011



Between 2001 and 2011, there were several shifts of note within the number of jobs in Windham, especially when compared to the overall job mix in Cumberland County. These can be sorted into the good news and the bad news.

- **Bad News**
  - Construction jobs. 375 in 2001 to 269 in 2011, down 28.3%.
    - The County was down only 11% in the same period.
      - Analysis: Recently, we experienced a significant slowdown in new commercial and residential construction (the last 3 years of the time period). However, this time period also includes many very active building years (the first two thirds of the time period). It remains to be seen if these jobs return to Windham or elsewhere in the region as construction activity continues to increase.
  - Agriculture, Forestry & Fishing jobs. 21 in 2001 to 14 in 2011, down 33.3%.
    - The County was up 37% in the same period.
      - Analysis: These are very small numbers, and some members of the community have questioned them based on local knowledge. However, it does seem that Windham has not seen an increase in the number of people involved with farming or forestry despite the growing demand for local food products and general move away from fossil-based heating sources.
- **Good News**
  - Retail jobs. 1,379 in 2001 to 1,433 in 2011, up 3.9%.
    - The County was down 12% in the same period.
      - Analysis: Even though this is a modest increase in local retail employment, it has occurred in the face of drop of retail jobs County-wide. This reinforces the view as a strong, growing retail center for the region.
  - Manufacturing jobs. 256 in 2001 to 412 in 2011, up 60.9%.
    - The County was down 31.5% in the same time period.
      - Analysis: Most encouraging, and perhaps most surprising among all the data related to changes in employment mix, is the increase in manufacturing jobs, especially given the drop County-wide. More should be done to understand this trend and encourage further development.

### **Current Planning Efforts and Initiatives**

Based on the community survey conducted in October 2014, and based on the visioning work at the start of the planning process for this plan update, it is clear that Windham residents want to increase the number of jobs available in Windham, and increase the diversity of jobs available in Windham. The planning document produced by the WEDC is focused on these two major goals.

### *WEDC Plan*

In 2013, the Town Council adopted the “Economic Development Strategic Plan,” developed by the WEDC. This plan can be accessed by clicking [here](#) (fix link). The vision for this plan is “to create a business friendly environment that provides a high-quality of life, a vibrant economy, and a welcoming atmosphere, while protecting our town’s rural characteristics and natural resources.” In order to achieve this vision, the plan is focused on the implementation of four objectives:

- Plan for the Future – implementation of policies and programs to support economic growth
- Support Business Growth and Prosperity – business recruitment, promotion and marketing efforts
- Create and Maintain an Efficient Review and Approval Process – simplify, streamline permitting processes and guide new businesses through this process.
- Develop a Support System for Economic Development – develop advocacy, partnerships and funding capacities.

The WEDC organized itself into sub-committees focused on the implementation of each of these areas: Planning, Business Growth, Review and Approval Process, and Community Engagement. Each has worked with municipal, community and other partners to complete priority strategies for each objective. The WEDC is currently in the process of evaluating progress on the implementation of the Strategic Plan.

### *Tax Increment Financing*

Windham has used Tax Increment Financing (TIF) districts for many years, as a way to dedicate ~~toward~~ funds for expenses related to economic development. TIF districts are established by the Town Council, and capture the additional value and when the of property that is developed within a TIF district, ~~†~~ The amount of additional taxes based on the increase in property value from when the district was established to the ~~current-new~~ taxable value (the tax increment) are dedicated to a segregated fund that is separate from the Town’s general fund. These TIF funds can be used for a variety of specific uses per state statute, but they must be related to capital improvements or other expenses that are meant to increase economic activity in the community.

The Town of Windham has four TIF districts, shown on Figure 5, below.

- The New Marblehead Credit Enhancement Agreement is an affordable housing TIF, which encourages and supports the development of affordable housing.
- The Roosevelt Promenade TIF captures the value associated with the development of the Home Depot, Lowes, and Goodwill store properties.
- The Pipeline TIF applies to the oil pipeline right-of-way that extends from the Raymond town line all the way to the Westbrook town line.
- The Gateway North TIF applies to a dozen properties along Route 302 in the vicinity of the Anglers Road/Whites Bridge Road intersection and Enterprise Drive intersections. These properties include the Microtel Suites hotel, Seacoast Adventure Park, and the WEDC’s property at Anglers Road.

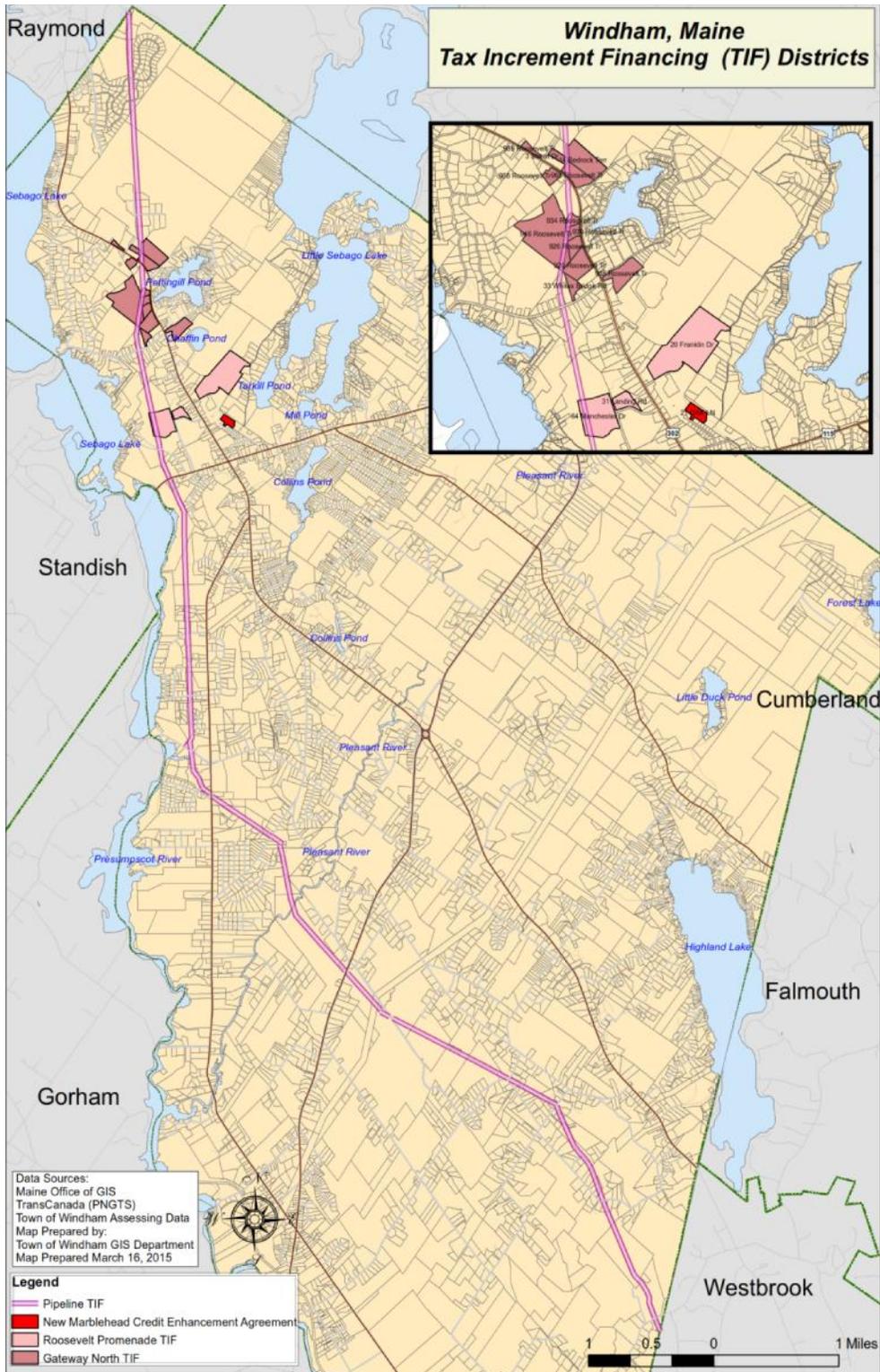


Figure 5 - TIF District Map

## Analysis

### Changes in the Windham Economy

The economy of Windham is not experiencing the kind of radical change associated with the loss of a major employer, as many Maine towns have had to deal with over the years. The loss of a mill or military base can shift the ground under a community's feet. However, even with no radical changes, the economic landscape in Windham is continuing to change~~ing in Windham~~.

Since at least the turn of the 21<sup>st</sup> century, the number of jobs in Windham has not kept pace with the number of people moving to Town. Many of the people who live in Windham work in the large job centers of Greater Portland. Indeed, as noted above, eight of the twelve largest employers in Windham are building supply stores, grocery stores and the public schools. The idea-vision of Windham as a large bedroom community for Portland held by some residents is not a completely accurate view of the Town, but that conception fits in many ways.

As the amount of residential development continues to outpace the amount of commercial development, the overall difference in value between residential and commercial/non-residential development will continue to expand, resulting in a ~~the~~ higher ~~the~~ burden will be on individual residential property owners to pay for additional services or expansion of existing municipal and school services. As the number of Windham residents who work in Portland, South Portland, Scarborough and Falmouth increases, the challenge of maintaining mobility on the major roads that connect to the job centers in the region will need to be addressed. This includes Route 302, as well as River Road and Falmouth Road.

### Description of Commercial Development Areas

Earlier in the chapter, the work of the Sustain Southern Maine (SSM) project to categorize existing commercial and mixed use areas in Greater Portland identified six "activity areas" in Windham. These are described below. The SSM typography, or categorization of these activity areas are based on the types and sizes of businesses and the market areas they serve. The hierarchy of these categories, from smallest to largest is listed below. For more information on these centers, and other types of centers not currently found in Windham, please refer to the [Center of Opportunities: Typography Report by clicking here](#) (fix link).

- Community Center
  - Not every town in Greater Portland has this type of large center.
  - Anchored by grocery store/supermarket and goods and services that people will travel to or involve comparison shopping. These centers have "gravity" and draw people from larger areas, especially in rural or suburban settings.
  - Characterized by additional uses like "big box" stores, offices and a wide variety of services such as medical and banking, clothing, automobiles and appliances.
  - Generally serves a primary trade area of 30,000 to 40,000 people.
- Neighborhood Center
  - Anchored by grocery store, with greater mix of retail and day-to-day items.

- Characterized by additional uses like banking, fast food, small restaurants and coffee shops, small businesses and services, professional offices. Routine goods and services many people want close by.
- Generally serves a primary trade area of 12,000 to 25,000.
- Convenience Center
  - Most common. Every community has one, Windham has several.
  - Located conveniently along busy roads or at key intersections.
  - Characterized by uses like gas stations, take-out food, ~~single and single~~ grocery item ~~shoppings~~.
  - Generally serves a primary trade area of 3,000 to 5,000 people
- ~~Neighborhood Center~~
  - ~~Anchored by grocery store, with greater mix of retail and day-to-day items.~~
  - ~~Characterized by additional uses like banking, fast food, small restaurants and coffee shops, small businesses and services, professional offices. Routine goods and services many people want close by.~~
  - ~~Generally serves a primary trade area of 12,000 to 25,000.~~
- ~~Community Center~~
  - ~~Not every town in Greater Portland has this type of large center.~~
  - ~~Anchored by grocery store/supermarket and goods and services that people will travel to or involve comparison shopping. These centers have “gravity” and draw people from larger areas, especially in rural or suburban settings.~~
  - ~~Characterized by additional uses like “big box” stores, offices and a wide variety of services such as medical and banking, clothing, automobiles and appliances.~~
  - ~~Generally serves a primary trade area of 30,000 to 40,000 people.~~

The activity centers identified by SSM are listed below, and this Plan recognizes the value of comparing commercial activity centers based on the mix and intensity of uses and service areas, but does not use the labels in the SSM report.

### *North Windham*

#### ***Regional Retail Center, Local Services, Mix of National and Regional/Local Restaurants***

When people from outside our community think of Windham, whether they are from surrounding towns or from out of state, they think of North Windham. For many people around the state and throughout the Northeast, North Windham is the only impression of Windham people have. North Windham was identified as a Community Center in the SSM report.

Windham’s regionally strong retail sector is centered in North Windham. Shopping options range from small specialty shops for clothing and jewelry, to “big box” style general merchandise stores, discount department stores, to large specialty retailers for automobile parts, office supplies, and two large national pharmacies.

North Windham hosts almost all of the dining options in Town outside of several notable ~~pizza and convenience~~ food options in other parts of the community. National and regional fast food chains are augmented by great local options such as Rustler’s Steakhouse, Gilbert’s Chowder House, Bob’s Seafood, Masa Grill and many others.

Banking services are concentrated in North Windham, as are professional offices and personal services.

### *River Road/Turning Leaf Drive*

This activity center on Route 302 ~~is~~ just to the south of the North Windham activity center described above. It was classified differently and considered separately from North Windham based on the lower intensity of uses. Even though there are banks, medical offices, more great local restaurants, and automobile and repair services found here, there are no “big boxes” in this area, and it has a different feel than the rest of North Windham. The difference in character between these two areas was noted and acknowledged in the 21<sup>st</sup> Century Downtown Plan for North Windham, where this lower-intensity commercial area was identified as a gateway into North Windham. This area was identified as a Neighborhood Center in the SSM report.

### *Enterprise Drive*

This section of Route 302 is just north of the North Windham activity center. Similar to the River Road/Turning Leaf activity center above, it is still in what many consider “North Windham” but might be considered a separate center based on the scale and types of uses. This center is the northern gateway to the more intensely developed North Windham center, and is the area aroundin the vicinity of Seacoast Adventure Park, the adjacent office condominium development, and the commercial condominium projects on the corner of Enterprise Drive and directly across from Enterprise Drive on Crimson Drive.

In early 2015, the Town’s first hotel in a branded chain opened its doors. The Microtel Suites by Wyndam Hotels opened in North Windham, between the intersections of Anglers Road/Whites Bridge Road and Enterprise Drive, across Route 302 from Seacoast Park.

This area was called out in the SSM effort as a Convenience Center. With the new hotel, relatively new development on Crimson Drive and with future development potential on the hotel site and within the Quarry Ridge Business Park on Enterprise Drive, this area could soon be, if not already be considered a Neighborhood Center that has more “gravity” (draws customers from a larger area) than a Convenience Center.

### *Route 302 Rotary*

This area is located primarily on Route 302 on either side of the Route 302/Route 202 rotary close to the geographic center of Windham. Mercy Quick Care and Hancock lumber are located in this vicinity, as well as Windham Automotive, Seavey’s Appliance, Hall Implement, Lee’s Family Trailer, Pyro City Fireworks and other convenience retail and food services. This activity area was classified as a Convenience Center by SSM.

### *Windham Center*

Located at the crossroads of Windham Center Road and Gray Road (Route 202), Windham Center is one of the original activity centers in Windham. Convenience food and grocery needs are served at Corsetti's, known for its pizza and breakfast sandwiches, as well as serving as a social crossroads during the busy morning times. Corsetti's benefits from the vehicle and foot traffic associated with the RSU School Campus and Town Office building nearby. For the purposes of this classification, the Windham Center activity area could also include the Windham Hill area near the crossroads of Windham Center Road and Pope Road, as well as the Popeville area at the crossroads of Pope Road and Gray Road. This activity area was classified as a Convenience Center by SSM.

### *South Windham*

South Windham has a long history as a commercial and residential area in Windham. South Windham Village could be considered the traditional "downtown" for Windham, but from an economic activity standpoint, the Village has not rebounded since the closure of the Keddy Mill. SSM classified this Convenience Center around the Blue Seal store. For the purposes of this analysis, this Convenience Center could include the areas of South Windham Village along with the convenience shopping provided by Ruggerio's at the River Road and Gray Road and Thayer's Store on River Road and Newhall Road. It would also include the Dolby Funeral Home area, the Post Office on Gray Road, and the soccer field facility at Gambo Road.

### **The Home Occupations and Rural Economy and Home-based Occupations**

Not all economic activities are in the "commercial" activity areas noted above. By definition, the rural economy does not take place in a center. Commercial activities that depend directly on the land, such as farming, forestry, and mineral extraction are the main types of businesses associated with a rural economy. The first two of these are discussed in greater detail in the Agriculture and Forestry Chapter.

Mineral extraction businesses fall into two categories in Windham – pits and quarries. Pits are sites where sand and gravel are extracted and processed, while quarries involve the extraction and processing of stone. Because of the difference in materials, blasting is not usually required at pits and usually is required at quarries.

There are fourteen gravel and sand pits in Windham of various sizes at locations throughout Town. There are two quarries, the Busque Quarry, owned by Shaw Brothers Construction, at the corner of Nash Road and Roosevelt Trail, and the Windham Quarry and Pit owned by RJ Grondin & Sons at the end of Enterprise Drive in North Windham.

Home Occupations play a significant role in Windham's economy. Home-based businesses can be services such as child care operations, personal services like hairdressers and barbers, or small engine repair shops. Home occupations also serve as new business incubators, where a home or garage is used on as cheap start-up business space.

Though not strictly a home based business as defined by the land use ordinance, there are many people in Windham who work remotely for employers based in other places. These employees might work from home for a few days a week and go into an office in Portland or Boston the other days, or their

home may be a satellite office for a company further away. Improvements in telecommunications and internet speeds make this type of work arrangement more common as time goes by. It is difficult to quantify the number of workers that use a home in Windham as a base for telecommuting, as the state and national level statistics are not currently geared to pick up these workers.

~~This section will discuss:~~

- ~~● the Rural Economy
  - ~~○ generally, not to the extent of the Agriculture & Forestry Chapter~~
  - ~~○ WEDCs goals to support and grow this part of the economy.~~~~
- ~~● home based occupations in otherwise residential or rural areas
  - ~~○ what role will these activities play in Town today?~~
  - ~~○ What place is there for home occupations in the future? Any changes anticipated in how or where?~~~~

### **Infrastructure needs**

~~Most of the discussion in this plan regarding infrastructure will occur in other chapters. For example, roads will be addressed in Transportation and water, sewer, gas and 3-phase power will be addressed in the Utilities chapter.~~

It is worth noting here where there are infrastructure deficits that need needed to be addressed in order to meet community and economic development goals.

### ***Sewer***

All of the residential and commercial development in North Windham is served by private subsurface wastewater systems (septic systems). To be sure, the larger users and systems that handle grease and other restaurant waste are more sophisticated engineered systems compared to the types of systems used in single family homes. However, the exclusive use of these systems in North Windham presents issues from several standpoints.

- Space required for development. Requiring every commercial development to find space on their own property to locate a septic field means that developers must purchase more land for a given use that would be required if the development were served by some type of sewer system.
- Limitations of types of commercial development. Certain types of commercial uses require a lot of water, like certain manufacturing uses and brewing. The rule of thumb when thinking about wastewater is “water in = water out” meaning that in general, big water users require big septic systems. Very large water users find a lack of sewer infrastructure a critical limitation when making decisions on where to locate or expand, even if public water is available.
- Inability to meet community development goals on conventional septic systems. Some of the main goals from the 21<sup>st</sup> Century Plan and the Economic Development Strategic Plan deal with increasing the number and diversity of jobs in North Windham. In addition, the 21<sup>st</sup> Century

Plan calls for increasing the number of residents in North Windham. These goals focusing increased density and diversity of uses in North Windham to create a strong sense of place where people choose to spend time, spend money, and find community will be difficult to fully realize or the reasons noted above.

- Aquifer/groundwater considerations. The Town has been monitoring nitrate levels in the groundwater for years. The presence of nitrates in groundwater is associated with septic systems. The level of nitrates in North Windham groundwater has been increasing over time, even accounting for seasonal variations in the levels of nitrates detected based on groundwater levels. In general the higher the groundwater level, the more water is in the ground, and the concentration of nitrates and other measurable pollutants (salt, suspended solids, organics, etc.) is lower based on dilution. In dryer times of the year, the lower the groundwater levels and the higher the concentrations of nitrates in the ground.

### **Broadband Internet**

Certain types of businesses and telecommuters require internet speeds that are currently not generally available in Windham. The WEDC is spearheading an effort with St. Joseph's College and the Towns of Raymond and Standish to connect to the high-speed fiber optic infrastructure that was installed around the state with federal stimulus funds as part of a plan to bring high-speed internet (1 gigabyte +) to rural Maine. This system is known as the "3-ring binder" network, and the closest point to this fiber "backbone" is in Standish at the intersection of Routes 35 and 114. It remains to be seen exactly how and on what timeline access to this infrastructure will be provided to North Windham or the Town more generally, but a 21<sup>st</sup> century economy needs a 21<sup>st</sup> century infrastructure. Access to this high-speed network will be important to expanding the options for Windham businesses in the future.

### **Uniquely Windham**

What are Windham's unique assets such as recreational opportunities, historic architecture, civic events, etc. for economic growth?

Windham hosts two unique events that serve to build community and attract people to the region. Either of these events could be used as vehicles for additional future economic growth.

Windham Summerfest is a daylong celebration of community and fun that takes place on the school campus property on a Saturday each June. This event includes a parade, a car show, events for children, music, carnival rides and fireworks. The event is also a fundraising opportunity for community groups that run food booths through the day. Historically, this event served as a homecoming day of sorts and has been focused on providing an opportunity for community building, renewing community spirit and socializing for Windham residents.

Until 2013, this event was planned by Windham Parks and Recreation staff, with the support of a volunteer board of community members. In 2014, this Summerfest became an all-volunteer effort.

The Sebago Lake Rotary Ice Fishing Derby is held each February. The event is organized by the Sebago Rotary Club. This event brings people from around the state and New England to the Sebago Lake area for a weekend of fishing competition.

One way to potentially build on that event would be to hold an organized complimentary event in Windham, such as a “Taste of Windham” event that weekend, or a Windham Winterfest on days leading up to or following the fishing events. Events like these could serve as an attraction to those competing (or their families!) to bring people to Windham on the weekend itself, or encourage visitors to extend their time in the area for another day or two.

## **Policies and Suggested Strategies to Implement Policies**

**Policy:** To support the type of economic development activity the community desires, reflecting the community’s role in the region.

*Strategy 1. Enact or amend local ordinances to reflect the desired scale, design, intensity and location of future economic development.*

*Strategy 3. Continue to implement the Town’s Economic Development Strategic Plan, and update this plan every 5 years.*

*Strategy 4.*

*Strategy 5.*

**Policy:** To make a financial commitment to support desired economic development, including needed public improvements.

*Strategy 5. Assign responsibility and provide financial support for economic development activities to the Windham Economic Development Corporation.*

*Strategy 6. Identify the mechanisms to be considered to finance public investments that support economic development (local tax dollars, creating a tax increment financing district, a Community Development Block Grant or other grants, bonding, impact fees, development districts, etc.)*

*Strategy. Develop a Capital Improvement Plan (CIP) that includes infrastructure projects in order to prioritize needed investments, allows the Town to incorporate local improvements with outside agency projects, (including MaineDOT, Portland Water District) and plan for required funding needs over time.*

*Strategy 7. Focus on implementing existing and future plans that support economic development and create a true sense of place in North Windham and other villages within the Town of Windham.*

*Strategy: Implement the 21<sup>st</sup> Century Plan in a manner that creates a true town center.*

*Strategy: Develop neighborhood or district plans for Windham Center and South Windham.*

**Policy:** To coordinate with regional development corporations and surrounding towns as necessary to support desired economic development.

*Strategy 7. Participate in any regional economic development planning efforts.*

## Chapter xx Transportation

### State Goal:

To Plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

### Analysis

With the automobile as the primary form of transportation for most Windham residents, it is not surprising that in the town's recent Community Insights Survey, traffic issues ranked as one of the most significant concerns among residents. In particular, many longtime residents expressed concern about increased traffic congestion along Route 302 in North Windham resulting from decades of sprawling commercial development. Route 302 serves dual roles as both a commercial center for Windham, and a regional transportation corridor providing access to the Lakes Region and New Hampshire.

### *Local and Regional Planning Efforts*

In response to these issues, the town has embarked on several planning efforts over the past several years. Two such efforts have focused on traffic and land use patterns along different segments of Route 302. In 2011, the North Route 302 Corridor Plan was completed, focusing on capacity and safety issues along Route 302 from River Road to Whites Bridge Road. The plan includes strategies and recommendations to increase safety and reduce delays such as access management, restriping and realignment, transportation demand management (TDM), and reconfiguring the lanes within the existing pavement width, including the installation of a two-way center turn lane in locations north of the Whites Bridge Road/Anglers Road intersection with Roosevelt Trail.

In 2013, the town adopted the 21<sup>st</sup> Century Plan intended to help leverage and promote growth in a way that improves the sense of place along North Windham's Route 302 commercial corridor. The plan advocates for a suburban downtown that introduces new street networks to establish new neighborhoods around the existing commercial area, increasing residential density, open space, and multimodal opportunities in this neighborhood. Ultimately, the plan envisions Roosevelt Trail will balance the needs of "to", "thru" and "local" modes of travel, including cars, public transit, pedestrians and bicyclists in order to accommodate existing and future development. It will thrive as a gateway to the Lakes Region and a vibrant town center where people live, work and play.

On a regional scale, Windham was part of the Route 302 Multimodal Corridor Management Plan completed by GPCOG for MaineDOT in 2013. This regional planning effort was focused on an element of transportation—the mobility corridor—and its relationship with cities and towns that have jurisdiction over land use and private development trends. Once again, North Windham's commercial area was identified as the most significant traffic issue along the corridor, with impacts that affect the functionality of the entire corridor. The plan included recommendations similar to the other plans identified in the previous paragraphs such as amending land use regulations to enhance the street network, implement access management strategies, and adopt a complete street policy. The town is currently working towards implementing these recommendations and recently adopted a local Complete Streets Policy.

### **The Portland Area Comprehensive Transportation Committee (PACTS)**

The Portland Area Comprehensive Transportation Committee (PACTS) was designated in 1975 as the Metropolitan Planning Organization (MPO) for Greater Portland, serving 18 municipalities including a portion of Windham along Route 302, as well as seven public transportation providers, MaineDOT, Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Maine Turnpike Authority, and both the Greater Portland Council of Governments (GPCOG) and Southern Maine Planning and Development Commission (SMPDC). PACTS conducts numerous transportation studies within the region, including long-range transportation plans.

The federal government established these entities in all urbanized areas of the country in order to improve the coordination of transportation planning and investment decisions by state, municipalities and public transportation organizations.

Destination Tomorrow, PACTS' 2025 Regional Transportation Plan was approved in 2003 and updated in 2010. It provides a vision for the region's transportation network and includes a broad range of multi-modal projects and programs to meet current and future growth and development. Recommendations from that plan have been incorporated into this chapter.

PACTS shares the responsibility with the Maine Department of Transportation (MaineDOT) for the programming of all capital improvement projects funded with Federal Transit and Federal Highway Administrations' (FTA and FHWA) funds in the PACTS Capital Management Area. Programming is the decision to fund a project for design, construction and/or operation. MaineDOT and others are responsible for the steps after programming.

### **Road Improvement Budget**

(Ben- I need current and future)

### **Bicycle Pedestrian Networks**

The existing bicycle pedestrian network in Windham is has numerous gaps. There are many examples of sidewalks missing crucial links and inadequate crosswalks and bike lanes in the Town's built up areas. However, the town is moving forward to improve these issues and create a more cohesive bicycle pedestrian network. In recent years, the Greater Portland Council of Governments (GPCOG) conducted a sidewalk analysis of both the North Windham and Windham Center areas. North Windham includes the town's largest commercial area, and Windham Center is home to both the Town Hall and the elementary and high schools. Although both assessments identify many gaps in the networks and recommend potential infrastructure upgrades for sidewalks and shoulders, there is potential to build a stronger network for bicycle and pedestrian access. Maps of both areas are shown below.

### **Parking**

The ordinance requires the number of spaces typically seen for most suburban communities and includes few incentives to seek more efficient or innovative approaches to meeting its parking needs, beyond allowing the options for shared parking between different uses on a single property and off-site parking arrangements between uses on abutting properties. Currently, the planning board has the ability to waive the required number of parking spaces but without regulatory incentives outlined in the ordinance, this option is rarely exercised. One of the goals of the 21<sup>st</sup> Century Plan is to reduce the overall number of parking spaces in North Windham in order to reduce the stormwater impacts associated with parking as well as to provide property owners with the option of having more land available for development, landscaping or other uses instead of parking.

### **Transit**

The town is currently served by both the Lakes Region Bus and Regional Transportation Program (RTP). The Lakes Region Bus is a commuter bus, while RTP provides para transit transportation to eligible people living in, or visiting, the Greater Portland area that are prevented by a disability from utilizing fixed-route bus service. Windham is not part of the Metro service area, which currently serves the adjacent town of Westbrook along Route 302. A map of the Lakes Region Bus route shown below, in Map X-X.

### **Local Road Design<sup>[SC1]</sup> Regulations**

The Appendix B of the Windham Land Use Ordinance outlines the town's local road design standards. It includes minimum site distance requirements, access design standards, and general construction standards such as surface type, minimum right-of-way width, and required sidewalk and shoulder widths. Major and minor private roads do not require sidewalks, and only a two foot shoulder width. These standards also dictate hammerhead and cul-de-sac designs.

In Section 500 Performance standards, Manchester Drive is identified as a controlled access street requiring all curb cuts on this street to be spaced at least 300 feet from the nearest curb cut. Section 518 outlines additional standards for several zoning districts and limits the number and width of curb cuts depending on the zone.

Section 500 Performance standards also include street connectivity standards that determine the number of connections a private road must have with an existing public street. The ordinance requires a second connection only after 31 lots/units are proposed.

The Traffic Conditions and Streets standards in Section 900 of the ordinance dealing with Subdivision Review does give the Planning Board the authority to require a reserved right-of-way to abutting undeveloped properties.

### **Conditions and Trends:**

Windham's pattern of growth over the past several decades has evolved around the automobile. It is the primary means of travel for most Windham residents. Windham is situated just west of the Maine Turnpike and approximately 10 miles from downtown Portland, and acts as a gateway to the lakes region. Routes 202 and 302 provide north/south access, and Routes 115 and 35 provide access to the east and west.

Traffic is continually identified as the most significant issue in Windham. A busy east-west corridor connecting Maine's Lakes Region and the White Mountains of New Hampshire, Route 302 is without a doubt the most significant traffic issue in Windham. However despite these challenges commercial development continues to locate along Route 302 and traffic on local roads is increasing.

### **Commuting Data**

The majority of Windham residents commute outside of town for work, with 57% of Windham residents commuting to Portland, 30% within Cumberland County, and 11% outside Cumberland County,

according to the Community Insights Survey. The Census provides journey to work data displayed in the map below.

Figures 1 & 2, below, provided by the U.S. Census Bureau's *On the Map* web tool, show commuter patterns in Windham in 2002 and 2012. The dark green arrow on the left is an estimate of commuter inflow, or the approximate number of people who commute to work in Windham but live somewhere else; the circular arrow in the center estimates the number of people who live and work in Windham; and lastly, the light green arrow on the right estimates commuter outflow, or the number of people who live in Windham and commute elsewhere for work.

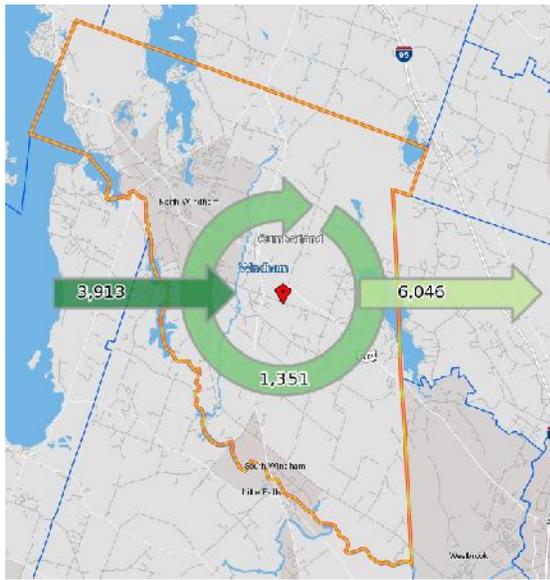


Figure 1: Commuter Patterns in Windham (2002)



Figure 2: Commuter Patterns in Windham (2012)

Although there are no park and ride lots, ## residents state they carpool to work or take public transportation.

## The Road System

This section examines the functionality and capacity of the town's roadway system. Existing road conditions, crash data, and traffic volumes are analyzed in order to identify specific transportation issues, and develop strategies to address these issues in the future.

### Federal Functional Classifications

The MaineDOT's functional classification of roads is the process by which public roads and highways are grouped into classes according to the type and level of service they are intended to provide. For example, some roads are intended to access residential neighborhoods, while others are intended to provide regional mobility. Roads fall into one of four categories- principal arterial, minor arterial, collector roads, and local roads.

Arterials provide through travel between major traffic generators (large cities, recreational areas) that have 10,000-30,000 vehicles per day, and are designed for higher travel speeds and fewer intersections. Arterials are further divided between principal and minor arterial roads. In Windham, Route 302 is considered a minor arterial road.

Collector roads are characterized by more moderate travel speeds; serve distances between smaller urban centers, villages, or neighborhoods, collecting traffic from local roads and connecting it to arterials. They are divided between urban and rural roads and see traffic between 2,000 to 8,000 vehicles per day. Some examples of collectors in Windham are Windham Center Road, Falmouth Road and River Road.

Local roads provide direct access to residential neighborhoods, local businesses, agricultural properties and timberlands. Volumes typically range from less than one-hundred to possibly thousands of vehicles per day. Roads not classified as arterials or collectors are considered local roads.

The classifications of Windham's roads are based on 2014 records obtained from the MaineDOT, and are classified as minor arterial, major urban collectors, minor collector, local, or "other". According to MaineDOT, Windham has 11.77 miles of minor arterials, 10.96 miles of major urban collectors, 8.21 miles of minor collectors, and 10.66 miles of local roads. A map of these roads coded by classification can be found on page x.

### **Ownership/ Town Maintenance responsibilities**

Roads [in Windham](#) are also classified as State, Town, Public Easement, or private. State Highways form a system of connected routes throughout the state that primarily serve intra- and interstate traffic. The State is responsible for year round maintenance on most state highways. [Of the five state roads in Windham, as of 2009, there were town maintains xx 214 miles of roads in Windham, divided into the following categories based on the maintenance responsibilities for those roads: xx town roads totaling xx miles, and approximately xx miles of gravel roads, xx public easement roads and xx private roads](#)

- [State roads with some Town responsibility: 21 miles \(includes Routes 302, 202, 115 and 35\)](#)
- [Town Roads: 100 miles](#)
- [Private Roads: 61 miles](#)
- [Private Roads with Public Easements \(Town responsible for winter maintenance\): 27 miles](#)
- [Part Town, Part Private: 6 miles \(includes roads such as Belanger, Old County, Johnson, Mineral Springs, Haven, Basin\)](#)

The following [ing](#) is a list of roads and their maintenance responsibilities. [\(Need list from Public Works\)](#)

### **Traffic Volumes**

Traffic count data is a major factor in evaluating traffic characteristics of a community. In particular, this information can assist with the ultimate prioritization of roadway maintenance. Although traffic volumes can be expressed in a number of ways, average annual daily traffic (AADT), released annually by MaineDOT, is generated using automatic traffic counters and provides an estimate based on a sampling

of data. Unfortunately, it does not account for seasonal fluctuations, a significant issue along Route 302. Not surprisingly, according to this data, the highest traffic volumes occur in North Windham adjacent to Tandberg Trail and continue north to the Raymond town line. A map of this data can be reviewed on [page xx](#).

### Crash Data

Again, the crash data in the table below illustrates that most of the high crash locations are located on or adjacent to Route 302. The table includes significant statistics related to the number of crashes, as well as the Critical Rate Factor (CRF). A CRF is a statistical measure used to determine the “expected crash rate” as compared to similar intersections throughout the State of Maine. A High Crash Location (HCL) is defined by MaineDOT as a location that has had eight or more traffic crashes and a CRF greater than 1.00 in a three-year period. Windham’s high crash locations are listed in the table below and mapped on [page XX](#).

| Location                                  | # Crashes (2015) | Critical Rate Factor (CRF) | Rank |
|---|------------------|----------------------------|------|
| <i>Intersections:</i>                     |                  |                            |      |
| Route 302 @Enterprise Drive               | 11               | 1.7                        | 67   |
| Intersection Route 115/302                | 35               | 2.09                       | 36   |
| Windham Ctr Road/ Ward                    | 8                | 4.04                       | 15   |
| Route 302/Rotary/Gray Rd                  | 29               | 5.44                       | 6    |
| Falmouth Rd/Gray Rd                       | 16               | 4.28                       | 13   |
| Route 302/Albion Rd.                      | 10               | 1.87                       | 58   |
| <i>Segments:</i>                          |                  |                            |      |
| Route 302 (Landing to Franklin)           | 13               | 1.15                       | 80   |
| Route 302-N of Tandberg Trl.              | 35               | 2.09                       | 36   |
| Tandberg Trl West of Route 302            | 13               | 1.78                       | 48   |
| Route 302-South of Tandberg Trl.          | 40               | 2.99                       | 13   |
| River Road btwn Laskey and Covered Bridge | 16               | 1.49                       | 63   |
| River Road-Rouseau to Anderson            | 26               | 1.09                       | 82   |

### Highway Corridor Priority Measures and Customer Service Levels

Another way MaineDOT classifies roads is by road priority level. With limited funds, MaineDOT uses Highway Corridor Priority Measures as a framework to prioritize its many programs and projects. There

are two aspects to the program- Highway Corridor Priorities and Customer Service Levels. The MaineDOT has classified all 23,400 miles of Maine public highways into six priority levels, with the interstate characterized as a priority 1 and local roads as priority 6. Priority 1 roads include all interstates and key arterials, such as Route 302, and priority 6 are local roads. Windham has 10.66 miles of priority 1 roadway (Route 302), 8.81 of priority 2, 13.51 miles of priority 3, 8.59 of priority 5, and 102.19 of priority 6 local roads. A map of these classifications can be found in [Appendix X](#).

Customer Service Levels uses customer-focused engineering measures to track highway (1) Safety, (2) Condition and (3) Serviceability, and grades them similar to a report card (A – F). Sections of Gray Road, River Road, Albion Road and Route 302 have been given a D or lower related to issues such as ride quality, roadway strength, and pavement width. The Corridor Priority and Customer Service level maps can be found in [Appendix x](#).

### State Road Projects

The MaineDOT Work Plan outlines the work that the department plans to perform over the next three years. The Work Plan is calendar year-based and includes all MaineDOT work activities. Projects and activities listed for Calendar Year 2015 are more firmly funded and tied to definite schedules, while those for Calendar Years 2016 and 2017 may be more subject to change. The following is a list of projects within the town that are identified in the MaineDOT workplan.

| Project Type                      | Road                | Specific Location  | Budget      |
|-----------------------------------|---------------------|--|-------------|
| Paving (3/4 overlay)              | Route 35            | Beginning 0.02 of a mile east of Middle Jam Road in Standish and extending easterly 1 mile.  | \$300,000   |
| Intersection Improvements         | Route 302           | Municipal Partnership Initiative. Located at the intersection of Route 302, Anglers Road and Whites Bridge Road.   | \$1,200,000 |
| Paving                            | Falmouth Road       | Municipal Partnership Initiative. Beginning at the Falmouth town line and extending northwesterly 1.00 mile to Albion Road.                              | \$330,000   |
| Bridge and Structural Maintenance | William Knight Road | Repairing deck, abutment, retaining wall, bridge rail, and curb on Varney's Bridge which carries William Knight Road over the Pleasant River in Windham. | \$60,000    |
| Bridge and Structural Maintenance | River Road          | Repairing abutments, retaining walls, bridge rail, and curb on Doles Bridge which carries River Road over Doles Brook in Windham.                        | \$35,000    |
| Paving                            | Route 202           | Beginning 0.40 of a mile south of Lotts Drive in   | \$2,465,000 |

|                        |            |  |             |
|------------------------|------------|--|-------------|
|                        |            | Windham and extending easterly 7.42 miles.                                     |             |
| Highway Rehabilitation | River Road | Beginning at Windham - Westbrook town line and extending northerly 3.07 miles. | \$4,399,000 |

### **\*\*local road projects....**

#### **Road Construction Standards**

Road design standards can be found in the towns Subdivision Regulations (Appendix B). The standards document the general construction standards such as required site distances relative to speed limits, width of right-of-way depending on traffic volume, surface type, shoulder and sidewalk width.

#### **Bridges**

According to data received from MaineDOT there are 24 bridges in Windham. Most are under the authority of MaineDOT, one is owned and maintained by the railroad, and several are characterized as maintained by the municipality. Table X below lists the condition and ownership responsibility for each bridge. Most of the bridges are in satisfactory to excellent condition (received a rating of 6 or above). However, several have received a lower rating (see table).

Bridges with ratings 5 or below on at least one of their three elements (deck, superstructure, and substructure) at the time of this inventory include: Varney's, Babbs, Great Falls #2, Loveitt, Doles Anderson, Popeville, and Carrol Lamb.

| <b>No.</b>  | <b>Bridge Name</b>    | <b>Year Built</b> | <b>Owner</b>     | <b>Bridge Condition</b> |                   |                |                |
|-------------|-----------------------|-------------------|------------------|-------------------------|-------------------|----------------|----------------|
|             |                       |                   |                  | <b>Deck</b>             | <b>Super Str.</b> | <b>Sub St.</b> | <b>Culvert</b> |
| <u>0233</u> | <u>Montgomery Rd.</u> | <u>1997</u>       | <u>MDOT</u>      | <u>N</u>                | <u>N</u>          | <u>N</u>       | <u>8</u>       |
| <u>0234</u> | <u>JONES</u>          | <u>1955</u>       | <u>Municipal</u> | <u>6</u>                | <u>6</u>          | <u>6</u>       | <u>N</u>       |
| <u>0254</u> | <u>BRAND</u>          | <u>1997</u>       | <u>Municipal</u> | <u>7</u>                | <u>7</u>          | <u>8</u>       | <u>N</u>       |
| <u>0256</u> | <u>Varney Mill</u>    | <u>1995</u>       | <u>Municipal</u> | <u>8</u>                | <u>8</u>          | <u>8</u>       | <u>N</u>       |
| <u>0257</u> | <u>Varneys.</u>       | <u>1965</u>       | <u>MDOT</u>      | <u>3</u>                | <u>6</u>          | <u>6</u>       | <u>N</u>       |
| <u>0300</u> | <u>Chute Rd.</u>      | <u>1996</u>       | <u>Municipal</u> | <u>N</u>                | <u>N</u>          | <u>N</u>       | <u>7</u>       |
| <u>0302</u> | <u>Black Brook</u>    | <u>2007</u>       | <u>Municipal</u> | <u>N</u>                | <u>N</u>          | <u>N</u>       | <u>7</u>       |
| <u>0359</u> | <u>Underpass</u>      | <u>1973</u>       | <u>Railroad</u>  | <u>N</u>                | <u>N</u>          | <u>7</u>       | <u>N</u>       |
| <u>1009</u> | <u>Babbs</u>          | <u>1976</u>       | <u>MDOT</u>      | <u>6</u>                | <u>6</u>          | <u>5</u>       | <u>N</u>       |
| <u>1529</u> | <u>Great Falls#2</u>  | <u>1970</u>       | <u>MDOT</u>      | <u>6</u>                | <u>7</u>          | <u>5</u>       | <u>N</u>       |
| <u>2264</u> | <u>EEL Weir</u>       | <u>1987</u>       | <u>MDOT</u>      | <u>7</u>                | <u>7</u>          | <u>7</u>       | <u>N</u>       |
| <u>2315</u> | <u>Glanz</u>          | <u>1946</u>       | <u>MDOT</u>      | <u>N</u>                | <u>N</u>          | <u>N</u>       | <u>6</u>       |
| <u>2676</u> | <u>Pleasant River</u> | <u>1989</u>       | <u>MDOT</u>      | <u>N</u>                | <u>N</u>          | <u>N</u>       | <u>6</u>       |
| <u>2787</u> | <u>South Windham</u>  | <u>2005</u>       | <u>MDOT</u>      | <u>8</u>                | <u>8</u>          | <u>8</u>       | <u>N</u>       |
| <u>2939</u> | <u>Whites</u>         | <u>1922</u>       | <u>MDOT</u>      | <u>6</u>                | <u>6</u>          | <u>6</u>       | <u>N</u>       |
| <u>2998</u> | <u>Narrows</u>        | <u>1959</u>       | <u>MDOT</u>      | <u>6</u>                | <u>6</u>          | <u>7</u>       | <u>N</u>       |
| <u>3018</u> | <u>Loveitt</u>        | <u>1947</u>       | <u>MDOT</u>      | <u>5</u>                | <u>7</u>          | <u>6</u>       | <u>N</u>       |
| <u>3059</u> | <u>Lokhorn</u>        | <u>2000</u>       | <u>MDOT</u>      | <u>N</u>                | <u>N</u>          | <u>N</u>       | <u>8</u>       |

|             |                           |             |                  |          |          |          |          |
|-------------|---------------------------|-------------|------------------|----------|----------|----------|----------|
| <u>3857</u> | <u>Whites</u>             | <u>2010</u> | <u>MDOT</u>      | <u>8</u> | <u>8</u> | <u>8</u> | <u>N</u> |
| <u>5061</u> | <u>Doles</u>              | <u>1930</u> | <u>MDOT</u>      | <u>5</u> | <u>5</u> | <u>6</u> | <u>N</u> |
| <u>5298</u> | <u>Anderson</u>           | <u>1950</u> | <u>MDOT</u>      | <u>5</u> | <u>6</u> | <u>6</u> | <u>N</u> |
| <u>5742</u> | <u>Popeville</u>          | <u>1957</u> | <u>MDOT</u>      | <u>6</u> | <u>6</u> | <u>5</u> | <u>N</u> |
| <u>5821</u> | <u>Madison Falls</u>      | <u>1969</u> | <u>MDOT</u>      | <u>7</u> | <u>6</u> | <u>6</u> | <u>N</u> |
| <u>5879</u> | <u>Carrol Lamb</u>        | <u>1962</u> | <u>MDOT</u>      | <u>N</u> | <u>N</u> | <u>N</u> | <u>5</u> |
| <u>6243</u> | <u>Black Brook Bridge</u> | <u>1972</u> | <u>MDOT</u>      | <u>N</u> | <u>N</u> | <u>N</u> | <u>7</u> |
| <u>6386</u> | <u>Pope Rd.</u>           | <u>1996</u> | <u>Municipal</u> | <u>N</u> | <u>N</u> | <u>N</u> | <u>7</u> |

### Alternative Modes

This section outlines existing modes of transportation other than the automobile such as bicycle lanes, sidewalks, and transit options. Both MaineDOT and the Town of Windham have adopted a Complete Streets Policy relative to road construction and maintenance to help increase access for all users. A copy of the policy can be reviewed in [Appendix x](#).

### Regional Transportation Program (RTP)

The Lakes Region Explorer is operated by the Regional Transportation Program (RTP) and began service in November of 2013. The bus recently transitioned to a new schedule and now makes four round trips per day (Monday-Friday) from Bridgton to Portland along Route 302. The bus stops at several locations along the route, and includes at least one stop per community. As part of the expansion, each Lakes Region community along the route now contributes roughly \$10,000 to help fund the service. [Rick can add a map of the route when it is finalized in August.](#)

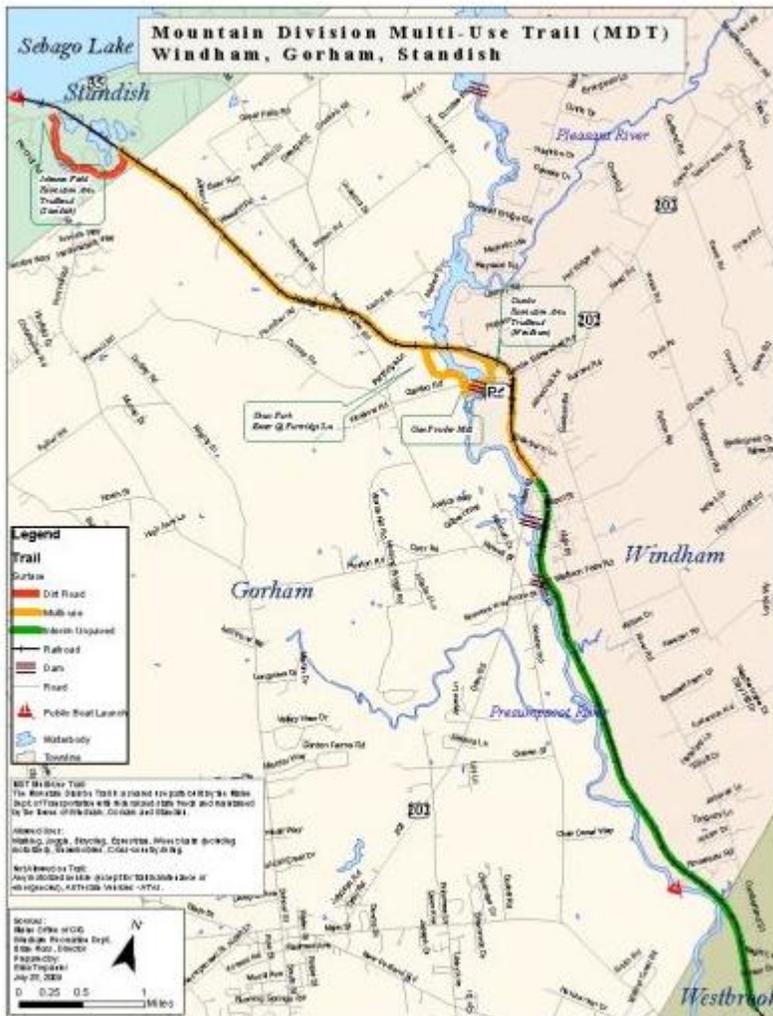
In addition to the Lakes Region Explorer, RTP also provides low-cost, curb-to-curb transportation service to the elderly, social service agency clients, the economically disadvantaged, and persons with disabilities in the study corridor and Cumberland County. According to its website, RTP consists of a fleet of 34+ lift equipped buses and vans, 45 agency certified drivers, and over 50 volunteer drivers. RTP serves over 4,500 people across Cumberland County each year and provides more than 1,000 rides a day. In 2010, RTP provided over 153,000 trips via bus, van volunteers, and family drivers.

In the study area, the Senior Transportation Program (STP) also coordinates and reimburses volunteer drivers for seniors who need rides in the northern portion of the Lakes Region. STP is based in Bridgton, and Bridgton clients tend to dominate the request for rides. In 2007, it was estimated that 70,000 miles would be driven as part of STP's program.

### Mountain Division Rail

The Mountain Division Railroad Restoration Project is an ongoing initiative led by MaineDOT, the Route 113 Corridor Committee, and local communities to restore freight rail service from Portland to Fryeburg

(a distance of 45 miles), with the potential for future passenger rail expansion. The State of Maine bought the Fryeburg to Windham portion in 1997, and in 2011, MaineDOT completed rehabilitation efforts on a four-mile section of track extending from Westbrook to South Windham. The Department then continued its efforts in early 2012 by applying for a Tiger III federal grant to fund the restoration of a 22-mile section of track connecting South Windham to Baldwin (passing through Gorham and Standish along the way). The grant request was ultimately denied, but MaineDOT may apply for future grant opportunities as they become available. If funded, the project would reestablish a direct rail connection from Southwestern Maine to the Port of Portland and open up new opportunities for emerging markets in the region. In particular, the project could provide freight rail access to an \$80 million industrial wood pellet facility slated for development in West Baldwin. A map of the Maine segment is below. The Town should continue to follow developments related to the reinstallation of rail infrastructure within the existing Mountain Division right-of-way closely, in order to ensure that the existing multi-use trail is not lost, as this is a valued recreational asset within the Town.



## Bicycle Pedestrian Facilities

Windham's bicycle pedestrian network is limited. Current challenges include an incomplete sidewalk network, a lack of crosswalks and sufficient pedestrian crossing signals, large expanses of parking lots (especially along Route 302 in North Windham), a lack of safe bicycle routes and racks. Existing sidewalks are primarily located in North, Central, and South Windham neighborhoods.

In South Windham, sidewalks of varying condition link to existing sidewalks in Gorham, and provide access to commercial areas. In North Windham, sidewalks extend along both sides of Route 302 with some consistency, but locating pedestrian crossings is still challenging due to the sheer volume of traffic in the area and the lane configuration. In Windham Center, home to the Town Office, library, skate park and RSU 14 School Complex, there is limited sidewalk and shoulder infrastructure of varying condition. Following a similar effort by MaineDOT, the town recently adopted a Complete Streets Policy that requires the town to consider bicycle pedestrian facilities as part of any transportation project. In 2012, GPCOG completed maps documenting existing sidewalks in both Windham Center and North Windham. These maps can be reviewed on [page xx](#).

There are no designated bike lanes in Windham. Routes 302 and 202 are still popular for biking with paved shoulders adequate for biking. A shoulder widening project was completed on Windham Center Road from the RSU School campus to River Road to improve access adjacent to the school and other community assets in Windham Center. The Mountain Division Trail also provides a five mile paved trail that's connects Standish, Windham and Gorham and allows access to bicycles.

## Parking

The town has no municipal parking facilities. On street parking is only allowed in the South Windham Village area. Most vehicle parking facilities are associated with commercial development occurs along the commercial areas of North Windham where retail development attracts people from neighboring communities. Due to minimum parking requirements, there is no shortage of parking spaces in North Windham. In fact, the current regulatory structure will make it difficult for the Town to meet its community development and economic development goals due to the large amount of on-site parking required of private land developers.

The current parking standards allow for shared access but do not incentivize the concept, resulting in little interest from developers. Similarly, shared parking is allowed if a developer can provide a parking plan from a licensed engineer, an expensive undertaking. Without the type of land pressure found in more urban environment, these strategies will not be pursued without more aggressive incentives from the town.

## Access Management

The MaineDOT has developed standard for access management aimed at preserving highway capacity and promoting safety. The state's access management program is intended to provide safer access to land development while conserving the ability of a highway to move traffic safely and efficiently. Access management is particularly important for major roadways, such as Route 302, which experience higher

volumes of traffic and are regionally significant. For planning purposes, a permit is required prior to the commencement of construction, alteration, or removal of any portion of an access within the state highway. Permits are reviewed based on factors such as sight distance, spacing between driveways, and corner clearance. More information on MaineDOT's access management rules can be found [here](#).

The town recently updated their site plan and subdivision ordinances with numerous access management requirements such as an allowable number of curbcuts, site distance requirements, curbcut spacing, and corner clearances. These efforts have been implemented in order to address existing concerns with preserving the capacity of the most heavily traveled roads in Windham.

## **Policies & Suggested Strategies to Implement Policies:**

**Policy 1:** To safely and efficiently preserve or improve the transportation system.

### ***Strategy 1.1***

Implement recommendations from 21<sup>st</sup> Century Plan including raised medians with either landscaping or a stamped pattern where feasible to improve traffic and vehicle movement and provide refuge space for pedestrians. These medians also assist with traffic calming and improve the aesthetic quality of the area.

### ***Strategy 1.2***

Implement recommendations from the 21<sup>st</sup> Century Plan to encourage the buildout of a local street network in North Windham in order to encourage more walking between homes and businesses in the area and to allow more vehicular trips to take place without having to use the existing Routes 302, 115 or 35.

### ***Strategy 1.2***

Work with local businesses and property owners to modify driveway locations that are unsafe or unnecessarily contribute vehicle turning movements in the corridor.

### ***Strategy 1.3***

Continue to update a prioritized improvement, maintenance, and repair plan for the community's transportation network. Additional planning for the Windham Center and South Windham Village areas should be undertaken using an approach that considers future land use goals, similar to the 21<sup>st</sup> Century Downtown Plan for North Windham.

### ***Strategy 1.4***

Maintain, enact, or amend local ordinances as appropriate to address or avoid conflicts with the policy objective of the Sensible Transportation Act (23 M.R.S.A Sec. 73), state access management regulation pursuant to 23 M.R.S.A Sec. 704, and state traffic permitting regulations for large developments pursuant to 23 M.R.S.A. Sec. 704-A.

***Strategy 1.5***

Maintain, enact or amend ordinance standards for subdivisions and for public and private roads as appropriate to foster transportation-efficient growth patterns and provide for future street and transit connections.

**Policy 2:** To promote public health, protect natural and cultural resources, and enhance livability by managing land use in ways that maximize the efficiency of the transportation system and minimize increases in vehicle miles traveled.

***Strategy 2.1***

Develop a Town-wide Bicycle and Pedestrian Plan to address issues presented in the built-up and more rural parts of Windham. This plan should view the transportation system benefits and recreational benefits of walking and bicycling.

***Strategy 2.2***

Sidewalks should be constructed on both sides of Roosevelt Trail/Route 302 and along Tandberg Trail/Route 35.

***Strategy 2.2***

Amend ordinances to require the construction of sidewalks or the equivalent impact fee for all new roads constructed or reconstructed, sidewalks should be provided on both sides and crosswalks should be installed at all intersection locations.

***Strategy 2.3***

Continue support of Bicycle Pedestrian ACE group working with GPCOG and Bicycle Coalition of Maine.

***Strategy 2.3***

Upgrade existing signalized intersections with crosswalks, ADA ramps, and pedestrian signals so that pedestrians can cross all approaches.

**Policy 3:**

To prioritize community and regional needs associated with safe, efficient, and optimal use of transportation systems.

***Strategy 3.1***

Continue to participate on regional planning projects and coordination with PACTS and the Greater Portland Council of Governments.

**Strategy 3.2**

Identify high-crash locations outside of the planning areas associated with the 21<sup>st</sup> Century Plan and the Route 302 North Plan, and proactively coordinate with MaineDOT or PACTS on addressing the most serious safety issues.

**Policy 4**

To meet the diverse transportation needs of residents (including children, the elderly and disabled) and through travelers by promoting a safe, efficient, and adequate transportation network for all types of users (motor vehicles, pedestrians, bicyclists).

**Strategy 4.1**

Develop procedures to implement the Complete Streets Policy adopted by the Town Council in 2014.

**Strategy 4.2**

## Appendix Maps:

- Federal classifications- local, collectors and arterials.
- Traffic Volumes (AADT)
- CSLs (map and table)
- Crashes
- Road Condition
- Bridges
- Sidewalks
- MaineDOT/PACTS Projects

## Housing

State Goal: To encourage and promote affordable, decent housing opportunities for all Maine citizens.

### Conditions and Trends

Housing issues and needs are very closely tied to the population and demographics of an area. It is also tied to the economy and issues of neighborhood and community character. Planning for housing, whether the questions are related to where new housing should be located or who is that housing being designed for, has a large and lasting impact on the Town. Unlike programs or services that may come and go, the built environment we create today will last for generations into the future.

### Local and Regional Affordable Housing Coalitions



The Westbrook Housing Authority (WHA) is the entity that manages the State's subsidized Housing Choice Voucher Program (Section 8 housing) for Windham. WHA also manages the properties developed by development partner, the Westbrook Development Corporation (WDC). WHA does not manage any properties in Windham, but the WDC has the ability to undertake projects in Windham. These projects could be new residential construction projects, rehabilitating existing housing, housing for seniors or those with disabilities.



Avesta Housing is a non-profit developer of affordable housing for southern Maine and New Hampshire, and is one of the largest affordable housing developers in New England. Avesta has built several projects in Windham over the years.

## ***Affordable Housing Developments in Windham***

- New Marblehead Manor (1979 & 1989). 60 units (efficiencies, 1- and 2-bedrooms), elderly and disabled residents. Located at 21 Oak Lane and 32 Sandbar Road. Avesta Housing.
- Marcus Woods (1994). 20 units (1-bedroom), elderly or disabled residents. Located at 250 Tandberg Trail. Coastal Affordable Housing.
- Unity Gardens/Edgecomb Woods (2005). 48 units (1-bedrooms), elderly housing. Located at 124 Tandberg Trail. Avesta Housing.
- Little Falls Landing (2006). 24 units (1-bedrooms), elderly residents. Located at 3 Depot Street. Avesta Housing.

## **Local Regulations – Affordable Family & Senior Housing**

Within the Commercial 1 (C-1) zoning district, “Housing for Older Persons” is allowed, provided that the dwelling units are not on the basement or 1<sup>st</sup> floor levels of the building, unless it is a project that receives federal housing subsidies. The C-1 district is the commercially zoned area in North Windham.

Multifamily Dwellings, as defined by the Windham Land Use Ordinance, are buildings with three or more dwelling units. New Multifamily housing is allowed in the Medium Residential (RM), the Commercial 1 (C-2) and Village Commercial (VC) zoning districts.

In 20XX the Town created a Retirement Community & Care Facility Overlay Zone (RCCF zone). The RCCF zone allows for

## **History of Housing Development in Windham**

For much of Windham’s early history, as noted in the Historic & Archeological Resources Chapter, homes were located in areas of industry on the Presumpscot and Pleasant Rivers, like South Windham, Great Falls, Newhall and Popeville. These areas along with the historic Windham Hill/Windham Center area were developed as villages, with jobs and housing in close proximity. Farmhouses were scattered across the rural landscape.

A large amount of new housing was built in conjunction with the population growth that began in the 1970s. Even through there have been many significant ups and downs in the housing market that has corresponded with the national economy, Windham still finds itself in a period of relatively strong housing growth.

Insert figure for age of housing stock....

## ***What’s Been Built***

Like most communities in the area, single family homes represent the vast majority of housing units in Windham. As noted previously, Windham’s population grew very rapidly starting in the 1970s. Using data from the Code Enforcement Department, Going back to the 1980s,

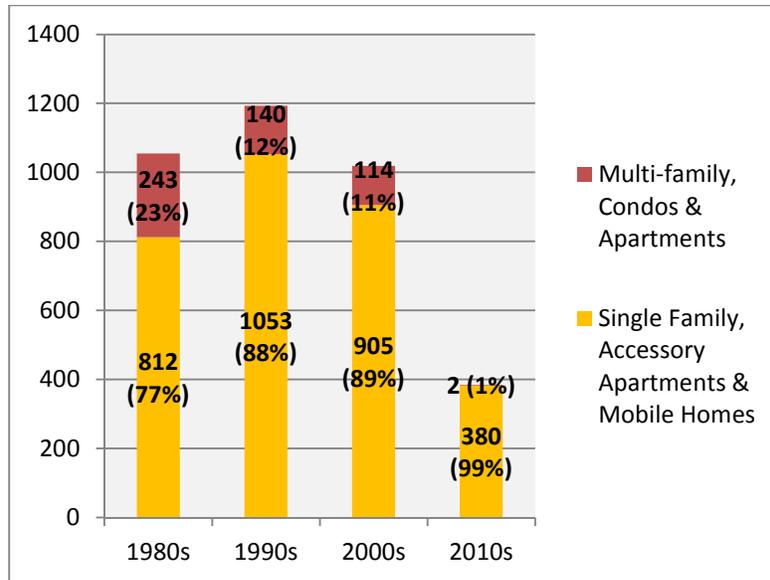


Figure 1 - Housing Types by Decade, through 9/2015

### Where Has Housing Been Built

## Analysis

### Projected Housing Needs

Based on the analysis in the Population & Demographics chapter, the Town of Windham may add between 9-14% of its year 2010 population each decade for the next two decades (*pending updated estimates from the state and census bureau*). Based on a 9% growth rate, this could mean that Windham will need to add around 579 between 2010 and 2020, and potentially another 654 between 2020 and 2030. This is considered a conservative estimate, because if the population change each decade is more than 9%, or if the average household size continues to shrink as it has since at least 1980, then the need for additional housing units will be higher than estimated here.

### Housing Affordability

Everyone who lives in Windham or has visited or traveled through Windham over the years knows that the Town has experienced steady and rapid residential growth since the 1970s. This information is presented in the Population & Demographics Chapter. Housing and population changes go hand in hand.

Looking at the affordability of housing in Windham compared to the Greater Portland region is one way to view the affordability of housing in Windham. It is likely that a good portion of Windham’s population growth since the 1970’s is attributable to the growth of the overall Greater Portland area as an economic engine for the state. A large share of the new housing associated with the growth of the Greater Portland area has been located in Windham based on the relative affordability and availability

of developable land. As a result, Windham has grown at one of the fastest rates of any community in the region over the last two decades.

Another way to look at the affordability of housing in Windham is whether or not the people who work in Windham can afford to live in Windham.

### **Seasonal Home Conversion**

This is happening, though for the most part it seems as though this phenomenon is mostly over – it was more of an issue in the time periods before the last Plan’s time period (2003).

### **Need for Low and Moderate Income Family, Senior and Assisted Living Housing**

There is a strong need for senior housing, based on info from the survey, and from Westbrook housing. Still need to quantify the amount of affordable Family Housing Vouchers (formerly known as Section 8). I expect the need for affordable housing in Windham to be most of the discussion at our meeting on 10/1.

### **Other Housing Issues in Windham**

Age of housing?

Multi-family housing issues (thinking of safety issues for these properties in particular)?

### **Local Regulations & Affordable or Workforce Housing**

None that I know of. Some communities require new subdivisions to build 10% of the homes to be affordable to families making 80% of the Town’s median household income.

## Water and Natural Resources

### State Goal:

*Water Resources: To protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers, and coastal areas*

*Natural Resources: To protect the State's other critical natural resources, including without limitation, wetlands, wildlife and fisheries habitat, sand dunes, shorelands, scenic vistas, and unique natural areas.*

### Introduction:

This chapter provides a comprehensive inventory of Windham's natural and water resources. Understanding these systems and assets is essential to encouraging both environmentally and economically sustainable land use decisions that insure the enjoyment and protection of these resources for future generations.

### Watersheds

A watershed is defined generally as an area that drains into a waterway, such as a stream, river, surface water body or aquifer, and is delineated by both natural and man-made features. Watersheds are interconnected such that action taken in one part of a system can affect water quality further downstream in that system.

All of Windham lies within the Casco Bay Watershed, which includes 945 miles and about a quarter of a million people. The town is also comprised of many smaller sub-watersheds associated with its lakes, ponds, wetlands, streams, and rivers. Some of these are located wholly within municipal boundaries and some are shared with neighboring communities. Windham also lies partially within the Sebago lake watershed, comprised of approximately 300,000 acres (450 square miles) across 23 towns. Sebago Lake is the public water supply for 11 towns within the Greater Portland area including Windham. **A map displaying Windham's watersheds and wetland systems is located below.**

Many watersheds extend beyond municipal boundaries, so managing water quality efforts on a watershed model often requires regional cooperation to be truly effective. Windham values the quality of life its natural and water resources provide to its residents and visitors and appreciates the responsibility of all towns in the region to protect the water quality of watershed resources. Over the years Windham has actively participated in several regional planning efforts involving neighboring communities and regional entities related to these critical resources. Most recently these efforts have involved cooperation with the Town of Gray for work within the Pleasant River watershed (2012-2013) and the Little Sebago Lake watershed (2014). These cooperative efforts have been initiated and managed by the Cumberland County Soil & Water Conservation District (CCSWCD).

## Topography & Steep Slopes

The topography of a place directly shapes its watersheds and Windham's elevation changes tend to lead water from a northeast to southwest direction, draining towards the Presumpscot River.

The lowest land elevations, below 100 feet are found along the Presumpscot near the southern end of town. The highest elevations, measuring between 500-600 feet are located on Mount Hunger, west of Little Sebago Lake and Atherton Hill, southwest of Forest Lake. Between Mount Hunger and Atherton Hill lies the Pleasant River watershed, which includes the wide drainage area of Little Sebago Lake, Mill Pond, Collins Pond and Ditch Brook, as well as the Pleasant River itself towards the confluence of the Presumpscot.

Very steep slopes are not generally an issue in Windham, with only a few areas where the slope exceeds 15%. However, more moderate slopes between 8% and 15% can also be an issue by creating sediment and nutrient runoff which can threaten water quality in lakes and rivers.

[Insert chart showing relative steepness of these slope classes]

Areas of steep slopes measuring 15-25% are located along the western and southeastern shore of Little Sebago lake, and along the southern shore of Forest lake. Areas of more moderate slope measuring between 8- 15% are found in several areas throughout Windham, although commonly adjacent to water bodies. Fortunately, there are only a few areas where slopes exceed 25% and few are located near water bodies. However, of most concern is an area located to the east of Sebago Lake.

In Windham, runoff generated from dense development around the lakes is more of a threat to water quality than runoff resulting from slope. These once seasonal, now year round homes rely on individual septic systems (many are aging), and have limited access along old gravel roads originally constructed to support seasonal camps.

## Surface Water

### Lakes and Ponds

There are six waterbodies classified by the state as "great ponds." This classification means that the lake or pond is a public resource, owned by the people of Maine. By size, these waterbodies are:

- Sebago Lake – approximately 30,000 acres. Shared frontage with Standish, Sebago, Naples, Casco, Raymond and Frye Island.
- Little Sebago Lake – 2009 acres. Shared with Gray.
- Highland Lake – 640 acres. Shared frontage with Falmouth and Westbrook.
- Forest Lake – 198 acres. Shared frontage with Cumberland and Gray.
- Collins Pond – 42 acres
- Little Duck Pond – 43 acres
- Pettingill Pond – 42 acres

## Sebago Lake

As discussed above, although each town must implement and maintain standards on an individual level, coordinating these policies on a regional level is essential in order to insure they are effective. The success of the Sebago Lake Watershed highlights the importance of coordinated regional policies and planning among many communities and organizations.

In 1913, the Maine Legislature recognized Sebago Lake as the water supply for 11 towns within Greater Portland including Windham. To date, the water quality is still considered excellent and requires very little treatment for use as a public water supply. The Portland Water District (PWD) maintains an intake in the Lower Bay, upstream from Windham's lake frontage. PWD maintains a 3000ft. "no trespassing zone", and a two mile no contact zone, as well as almost 2500 acres of conservation land adjacent to the intake in the lower bay area.

Of the 23 towns in the Sebago Lake Watershed, only Standish, Sebago, Naples, Casco, Raymond, Frye Island, and Windham have frontage along the Lake, and therefore development in these communities has the potential to directly impact Sebago's water quality. Windham maintains 1900 acres of land in the Sebago Lake Watershed. Only the very northern part of North Windham is within the lake's watershed. The small watersheds of Hyde Brook, Outlet Brook flowing out of Chaffin Pond and two other unnamed tributaries drain into the Lake..

## Smaller Lakes

Highland Lake, Forest Lake and Little Sebago lakes are considered Great Ponds (larger than 10 acres) and are shared with several towns. All three lakes are the focus of regional watershed planning efforts managed by Cumberland County Soil and Water District (CCSWCD). The purpose of these projects is to significantly reduce soil erosion and polluted runoff sources, foster long-term stewardship, and ultimately improve water quality. As part of these efforts, CCSWD offers free technical assistance to landowners, towns and private road associations in order to address erosion problems.

Highland Lake is a 623-acre lake located in the municipalities of Falmouth, Windham, and Westbrook. The watershed area is 8.5 square miles with a maximum depth is approximately 67 feet. It has undergone periodic water quality monitoring since the mid-1970s, conducted by volunteers at the Highland Lake Association (HLA), and with assistance from CCSWCD. In 1999, these groups conducted the Highland Lake Watershed Survey and Implementation Plan. The plan identified that oxygen levels in the lake had been declining since 1978 due to increases in algae, phosphorous, and sedimentation associated with increased sprawling development and individual septic systems. Although no issues were identified with 98% of the systems surveyed, the report indicated that the reliance on individual septic systems was not sustainable and would eventually become a major threat to water quality. 30% of the septic systems surveyed were approaching the end of their lifespan. Following this effort, a watershed management plan was developed for the Lake outlining specific goals and implementation strategies focused on reducing existing and potential non-point sources of pollution over a 10-15 year period.

## Rivers and Streams

The Presumpscot River runs almost 26 miles from Sebago Lake Basin to Casco Bay. Six communities have frontage on this river. The river has had several dams over the years in different areas along the Windham/Gorham line for power generation resulting in the creation of several newer water bodies including Sebago Lake Basin, North Gorham Pond, and Dundee Pond. In 2003, the Casco Bay Estuary Partnership (CBEP) assembled a broad group of stakeholders including all five municipalities and facilitated the development of a plan for the Presumpscot River. Several businesses, including SAPPI Fine Paper (formerly S. D. Warren Company), located in Westbrook and owner of seven of the dams on the river, participated on the steering committee for the Plan.

The Pleasant River, which includes Ditch Brook, an outlet from Little Sebago Lake, is the town's largest sub-watershed area. However, much of the contributing flow into Pleasant River comes from neighboring Gray. Unfortunately, the Pleasant River does not currently meet the Maine DEP's criteria for a Class B river as it is considered to be impaired due to high bacteria counts, and low levels of dissolved oxygen. In response to this issue, Maine DEP has required the creation of a watershed-based management plan outlining the steps needed for the Pleasant River to improve its water quality to acceptable levels. The EPA also requires such a plan prior to releasing any federal funds for clean-up. In the spring and summer of 2008, a watershed survey that focused on polluted runoff was conducted throughout the Pleasant River Watershed. Results from the 2008 Watershed Survey identified 95 non-point sources (NPS) of pollution. Most of the sites documented were associated with town roads (35%), private roads (15%) and residential areas (13%). Other NPS sites documented included state roads, agriculture sites, businesses/commercial properties, trails/paths or boat access, and construction sites. In 2011, the [Pleasant River Watershed Management Plan](#) (fix link) was developed through a grant from the Casco Bay Estuary Partnership (CBEP). The report identifies polluted runoff as the greatest potential threat to water quality in the Pleasant River.

## Groundwater/ Aquifer Resources

Groundwater is water found below ground in soil and rock formations. Groundwater occurring in sufficient quantities to supply a well is called an aquifer. The state has mapped "high yield aquifers" that are significant because of the amount of water they contain and the amount of water that can be extracted from these formations. The highest concentration of high yield aquifers is located around Little Sebago Lake, extending toward Sebago Lake and the Presumpscot River. This area is the largest mapped high yield aquifer in southern Maine. Other smaller areas have been identified around Windham Center, River Road, and Forest Lake. Only the aquifer adjacent to Little Sebago Lake has the capacity to yield more than 50 gallons per minute.

## Water Quality and Protection

### *Point Source Pollutants*

Point source pollutants can be traced to one location, or point, such as a factory or treatment plant. The Windham School Wastewater Treatment Facility currently has a permit for a point-source discharge on the main stem of the Pleasant River about a half mile downstream from the Windham Center Road crossing. Since 2000, this treatment facility has experienced sporadic non-compliance of Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD). MEDEP is currently working with the treatment facility to develop solutions to reduce the number of non-compliance violations. The Town of Windham has also considered a wastewater sewer system for the North Windham business district to which this School Treatment Facility could connect.

#### *Non-point sources*

Unlike pollution from industrial and sewage treatment plants, nonpoint pollution sources do not originate from a centralized source. Rainfall or snowmelt travels over and through the ground, bringing with it natural and human-made pollutants, with the potential of depositing them into lakes, rivers, wetlands, streams and other waterbodies. In Windham, a large amount of this pollution comes from stormwater runoff associated with the improper construction and maintenance of old gravel camp roads. Proper maintenance of these roads helps prevent this form of pollution. Phosphorous is the prime nutrient carried by these eroded sediments.

In Windham, runoff generated from densely settled seasonal housing around the lake is recognized as a potential threat to water quality. These once seasonal, now year round homes rely on individual septic systems (many are aging), and have limited access along old gravel roads originally constructed to support seasonal camps.

Windham relies on septic systems to provide treatment for its residential and commercial wastewater. If properly designed and maintained these systems can provide an effective long term treatment of nitrates, phosphorus, and pathogens for in wastewater. Unfortunately, these systems can suffer from a lack of maintenance that results in failure and ultimately threatens water resources. In response to this risk, the Town contracted with Woodard & Curran in March 2010 to provide an update to its 2003 Wastewater Facilities Plan. The study recommended collecting and transporting wastewater generated in North Windham and treating and disposing it at the Westbrook-Gorham Regional Water Pollution Control Facility (WGRWPCF) owned and operated by the Portland Water District. This treatment concept was endorsed by the Windham Town Council in a 7-0 vote in spring 2010. At the direction of the Council, the consultant developed a design of the collection and transport system, budget for increasing capacity of the facility, and identified options for upgrades to the WGRWPCF to treat the roughly 700,000 gallons per day of wastewater from the first phase of the project. The Phase 1 Capital Cost Estimate for this project was estimated at \$67.8M with an annual additional operation and maintenance budget at \$460,000. On September 14, 2010 the Town Council voted unanimously to approve this Plan, but the project was overwhelmingly voted down by residents, 6,513 to 2,036, in 2012.

The issues that prompted the renewed look at how to treat wastewater in North Windham – environmental concerns, economic development and community development goals – did not go away after the vote.

## Wildlife and Plant Habitats

The type, location and scale of development can have a significant effect on wildlife habitat. Larger natural areas or corridors are often broken up as a result of development patterns. Documenting and protecting these natural resources is essential to maintaining their abundance and diversity, and to insuring natural places play an important role in our communities.

Maine Department of Inland Fisheries and Wildlife (IF&W) has identified various habitats in Windham as *Threatened, Endangered, or Species of Special Concern*. Brook Floater, a freshwater mussel has been identified as a threatened species throughout Windham. New England Cottontail, and the Great Blue Heron were also identified as a species of special concern. In the northern segment of Windham, several plant habitats have been identified as *Natural Communities* including Pine Pitch Bog, Red Maple Swamp. A summary of each data set is outlined below along with a map of the habitat for these species provided by IF& W.

### *Large undeveloped habitat blocks*

Contiguous unbroken habitat blocks are essential to fostering healthy wildlife habitats. Wildlife requires blocks ranging from 50 acres (for some grassland birds) up to 5000 acres (black Bears), depending on the species. Windham currently contains many such habitat blocks, although they appear evening dispersed between development areas. Maintaining this network of habitat blocks should be an important consideration in managing the town's land uses and future development.

### *Deer Wintering Areas*

Deer wintering areas have been identified west of Lake Suzanne, along the northern portion of Route 115 east of Hunger Bay. Areas have also been identified east of Ditch Brook, southeast of the North Windham commercial area, and northeast of Little Duck Pond, west of Forest Lake and the Gray/Cumberland boarder.

### *Waterfowl and Wading Birds*

Several areas of waterfowl and wading bird habitats have been identified around the Highland Lake area of Windham, as well as the northwest tip of Windham between the Sebago and Little Sebago Lakes.

### *Wetlands*

Wetlands include swamps, marshes, bogs and other similar areas and support a variety of species such as frogs, salamanders, turtles, fish, insects, birds, deer and moose for food, shelter and/or breeding habitat. They are not only critical to supporting many species of plants, animals and insects but they also reduce the impacts or risk of flooding, slowing down and absorbing water heading inland to our communities.

The Maine Department of Environmental Protection, through its authority under the national Resources Protection Act (Title 38, Section 480-A), regulates activities in "wetlands of significance." The rules

govern activities in or adjacent to coastal wetlands, freshwater wetlands (including wetlands associated with great ponds or wetlands that are in the floodplain of any river, stream, or brook). Wetlands are located throughout Windham with the most concentration existing along the far northern area bordering Gray and Raymond, and on the southern tip of Highland lake. **A map showing the type and location of wetlands using data provided by Beginning with Habitat is located below.**

Vernal Pools are a specific type of smaller wetland that usually only stays wet for part of the year, typically drying out in the summer months. Vernal Pools provide habitat for many species on a seasonal basis, usually filling with water from melting snow and rain in the springtime. Although they most likely exist in Windham, they have yet to be mapped comprehensively.

### Scenic Resources

As noted in the Values and Vision Statement in this Plan, Windham is a beautiful place. There are many special views from public roads and places that epitomize the rural character that long-time residents love and attract new residents, too. Specific examples, like the Covered Bridge, and more general areas like the open fields on Route 202 between the rotary and Gray have been called out in past comprehensive plans. No work has been done yet to identify or prioritize specific properties that have the most value and meaning to the public, though. Such a task would provide important guidance to the Windham Land Trust and the Town Council when setting conservation priorities in the future.

### *Regulatory Protection*

Windham's regulatory framework is strong and supports its commitment to the protection of its natural and water resources. The Town of Windham had adopted Shoreland Zoning protection that has been deemed consistent with state's mandatory shoreland requirements. The town also has adopted a Surface Water Protection Ordinance, Chapter 142 of its Land Use Ordinance. Originally adopted in 2002, this ordinance expands erosion and sedimentation control measures to encompass all of the Town's watersheds. Additionally, both Windham's subdivision and site plan review standards require an erosion control plan that adheres to the requirements outlines in these guideline.

The Town of Windham has adopted a floodplain ordinance consistent with the Federal Emergency Management Agency (FEMA) flood management codes used to assess and manage floodplains, and requires a permit for any development proposed in these areas. FEMA maintains detailed maps of all 100-year flood plains throughout the country (a 100-year floodplain is a designated area that has a one percent chance of being flooded in any given year). In 2004, FEMA began a project to update the floodplain maps for Cumberland County. To date, the final maps have not been introduced, though they are expected to be adopted in the coming year.

Much of the Town is within the urbanized area defined by the EPA for compliance with Municipal Storm Sewer System (MS4) regulations. This program makes certain that the Town's operations meet federal standards for the quality of the water that runs off Town property and requires new private

development of over an acre in size to inspect and report on the maintenance status of all stormwater infrastructure on an annual basis. These reports must detail the condition of ditches, storm drains, detention ponds, stormwater filters and any other ways to handle water that runs off the site. These inspections are meant to ensure that projects in Windham are not just built properly, but function as they were designed over time. Compliance with stormwater requirements is being lead by the Public Works Director, and many departments are involved.

In addition to regulatory protections, the Public Works staff attends regular state trainings related to best practices in road construction and maintenance activities.

### **Policies and Strategies:**

Policy 1: To protect current and potential drinking water sources

Policy 2: To protect significant surface water resources from pollution and improve water quality where needed.

Policy 3: To protect water resources in growth areas while promoting more intensive development in those areas.

Policy 4: To minimize pollution discharges through the upgrade of existing public sewer systems and wastewater treatment facilities.

Policy 5: To cooperate with neighboring communities and regional/local advocacy groups to protect water resources.

Policy 6: To conserve critical natural resources in the community.

Policy 7: To coordinate with neighboring communities and regional and state resource agencies to protect shared critical natural resources.

*Strategy 1.1: Adopt or amend local land use ordinances as applicable to incorporate stormwater runoff performance standards consistent with:*

- a) Maine Stormwater Management Law and Maine Stormwater Regulations (Title 38 MSRA 420-D and 06-096 CMR 500 and 502).*
- b) MaineDEP allocations for allowable levels of phosphorous in Lake/Pond watersheds.*
- c) Maine Pollution Discharge Elimination System Stormwater Program*

*Strategy 1.2: Consider amending local land use ordinances, as applicable, to incorporate low impact development standards.*

*Strategy 1.3: Where applicable, develop an urban impaired stream watershed management or mitigation plan that will promote continued development or redevelopment without further stream degradation.*

*Strategy 1.4 : Maintain, enact or amend public wellhead and aquifer recharge area protection mechanisms, as necessary.*

*Strategy 1.4 : Encourage landowners to protect water quality. Provide local contact information at the municipal office for water quality best management practices from resources such as the Natural Resource Conservation Service, University of Maine Cooperative Extension, Soil and Water Conservation District, Maine Forest Service, and/or Small Woodlot Association of Maine.*

*Strategy X.X: Adopt water quality protection practices and standards for construction and maintenance of public and private roads and public properties and require their implementation by contractors, owners, and community officials and employees.*

*Strategy xx: Participate in local and regional efforts to monitor, protect and, where warranted, improve water quality.*

*Strategy Xx: Provide educational materials at appropriate locations regarding aquatic invasive species.*

*Strategy xx: Ensure that land use ordinances are consistent with applicable state law regarding critical natural resources.*

*Strategy xx: Designate critical natural resources as Critical Resource Areas in the Future Land Use Plan.*

*Strategy xx: Through local land use ordinances, require subdivision or non-residential property developers to look for and identify critical natural resources that may be on site and to take appropriate measures to protect those resources, including but not limited to, modification of the proposed site design, construction timing, and/or extent of excavation.*

*Strategy xx: Through local land use ordinances, require the planning board (or other designated review authority) to include as part of the review process, consideration of pertinent BwH maps and information regarding critical natural resources.*

*Strategy xx: Initiate and/or participate in interlocal and/or regional planning, management, and/or regulatory efforts around shared critical and important natural resources.*

*Strategy xx: Pursue public/private partnerships to protect critical and important natural resources such as through purchase of land or easements from willing sellers.*

*Strategy xx: Distribute or make available information to those living in or near critical or important natural resources about current use tax programs and applicable local, state, or federal regulations.*

